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CONFERENCE PROCEEDINGS

EPIC 2006

Ethnographic Praxis
in Industry Conference

24-26 September, 2006
Portland, OR
USA

The **National Association for the Practice of Anthropology** (NAPA) is pleased to welcome you to this second annual *Ethnographic Praxis in Industry Conference*. NAPA is a section of the American Anthropological Association and supports the work of practicing anthropology by helping practitioners refine their skills, develop their careers, and market their services.

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Introduction to the Proceedings of EPIC 2006: The Second Annual Ethnographic Praxis in Industry Conference

We are delighted to welcome you to the second Ethnographic Praxis in Industry Conference proceedings. After an exemplary inaugural year, we eagerly awaited the opportunity to institute learnings from the first EPIC conference and bring the growing ethnographic community practicing in industry back together. As evidenced by the high number of quality submissions and increased attendance, we are pleased to see the community of practitioners continuing to make EPIC an important part of their conference agenda.

We recognize that our 'community' is still being defined, in part through EPIC. We believe that this second year has helped us take even greater strides in defining who 'we' are. More time was dedicated in this year's program to discuss the 'we' that comprises our community by representing the multiplicity of backgrounds from which practitioners hail and environments in which practitioners work, while staying focused on the practice of ethnography within the business setting that binds us together.

Conference Theme

Transitions was the theme of this year's conference. Transitions is a broad, but important topic addressing the shifting landscapes of the world at macro and micro levels - global and societal shifts to changes in people's daily lives. In industry the notion of transitions is important as organizations try to understand the global landscapes in which they play a part, as well as keeping up to date with their constantly changing consumer base. We believe that the popularity of ethnography in the business world is a mark of this transition, a liminal moment, in a rapidly changing world of work. We broke the theme of transitions into three paper sessions: Cultural Transitions, Social Transitions and Transitions in Everyday Life.

Conference Program

The decision was made to keep the conference single track, allowing everyone to hear the same presentations at the same time, thus encouraging community building. Additionally, to be mindful of corporate schedules, we kept the program to the same two-day time frame to minimize the amount of time attendees would need to be away from work.

The conference was divided into four sections: paper sessions, a discussion panel, workshops and posters. The paper sessions pulled apart the theme of transitions. *Transitions in Everyday Life* explored how health changes can act as a catalyst for major changes in life, as well as elements of the commonplace in everyday life, such as domestication, day-to-day patterns and transitional spaces. *Social Transitions* included a set of papers thinking reflectively on transitions within ethnographic practice today, as well as piquing case studies considering social changes through various stages of life. Similarly, *Cultural Transitions* explored long term

changes within the practice of ethnography, as well as current ethnographic work encompassing transitions on a global and long time scale.

A discussion panel was added to the program, in response to feedback from EPIC 2005 asking for more discussion within the program, specifically delving into what it means to practice in business settings and what 'success' looks like. Industry-recognized panelists from various types of business practices were asked to write & speak briefly about 'What constitutes success'. We believe this also helped add to the discourse on who 'we' are and how we as practitioners can strive for continued success, no matter our background or work environments.

The 14 workshops provided hands-on and interactive experience around key topics in ethnography today. Lastly, the posters presented a range of research projects and ideas by practitioners.

Once again we decided to publish proceedings, including the full papers written by the authors, not the presentations given at the conference event. Proceedings are unusual in the social science and design fields. We believe this to be an important distinguishing factor of EPIC, providing a collective archive of where 'we' are in order for the community to track its own growth.

Nearly 50 extended abstracts were submitted for the conference, from which we could only accept 19 papers for inclusion in the program. The submissions were of very high quality and directly relevant to the charter of EPIC, making it all the more difficult to include less than half of the submissions. Thanks to all of the authors for their fine submissions. Each submission was put through a double-blind reviewing process (reviewers did not know the name or the institution of the authors). Minimally, four reviewers reviewed each submission. Once provisionally accepted, session curators reviewed full papers. Before final acceptance, authors were required to address session curator and reviewer comments. Paper authors come from a variety of backgrounds and the papers capture the wide range of thinking about ethnography in industry today.

In Thanks

First and foremost we would like to thank the attendees and presenters of EPIC 2006 for coming to the conference, adding to the discourse of ethnographic praxis in industry and helping to grow and define our emerging community.

We would like to express our deepest gratitude to the EPIC advisory committee for their support and guidance in making the second EPIC stronger than the first, by creating a more fluid and appropriate program format and insisting on the highest quality in writing, presentations and workshops. In addition, we'd like to thank all the reviewers for their tireless efforts in evaluating the submissions and providing feedback to authors.

We would like to acknowledge the support of our corporate and institutional sponsors, Intel, Microsoft, the Danish government, Pitney Bowes and the American Anthropological Association, for their contributions of people and financial resources, without which EPIC 2006 would not have existed.

We hope that you enjoy and learn from the printed materials, as much you did in person.

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Keynote Address: Ethnography and the "Extra Data" Opportunity

GRANT MCCRACKEN
Convergence Culture Consortium (C3), Massachusetts Institute of Technology

My profession has a problem. It is awash in hacks and pretenders. I am guessing that 1 in 3 ethnographers is more or less incompetent.

It is easy to identify some of the offenders. Some of them actually claim to be "self trained." Others are focus-group moderators simply renamed. Some actually claim competence on the grounds that they "roomed with an anthropology major in college." There has to be a way to separate the sheep from the goats, and we have to do it fast. Commercial ethnography could easily go the way of the focus group.

Every so often there are murmurs that would take us in the direction of certification. But I don't think this is a great idea. It would be expensive, time consuming, bureaucratic. Worst of all, there are some practitioners who are very good indeed but have no training or disciplinary credential to call their own. (Conversely, there are anthropologists with splendid academic qualifications who can not do an ethnographic interview to save their lives.)

I proposed that we might want to take advantage of the "extra data" effect. Ethnography is often most useful when we don't know what we need to know. The method is good at casting the net wide. We ask lots of questions. Collect lots of data. Apply lots of theory and interpretation. And eventually, we begin to see what it is we need to see. At the end of this process we find ourselves in possession of a lot of data we cannot use. This "extra data" is our opportunity.

I propose we start reporting some of this data, as a contribution to the understanding of contemporary culture. The Victorians began a publication called "Notes and queries in Anthropology" in which occasional, sometimes slender ethnographic observations were exposed to public view and contribute to the fund of knowledge that helps inform and shape professional discourse. "Notes and queries" need not be long. They need only be well chosen, well shaped, and well received. I believe that the authors of useful and intelligent notes and queries would effectively identify themselves as ethnographers of standing. A silence on this issue would identify the ethnographer as an incompetent This is a Millian proposition, on the one side, and a complexity theory notion

on the other. Good people will attract attention. Bad people will suffer obscurity. Eventually, clients will migrate from the bad to the good. Eventually, the hacks will be starved out of the field. (My favorite suggestion is that for their next act of imposture, why not pose as a self trained engineer?)

There are a couple of understandable, but I think, unsustainable, objections. The first of these is the notion that the client pays for the collection of this data and his or her interests are violated by its revelation. This is wrong. Some years ago, I came across some "extra data" of a very interesting kind. I had the opportunity to interview a couple living in suburban Kansas City who has embraced the Black Athena scheme right down to the ground. Virtually all the design elements of their homes played out the cultural motifs of ancient Egypt. What made this data precious is that it showed that an idea that was merely an idea when published in 1987 was now a reality, a powerful personal identity some 15 years later. That it could go from academic statement to lived reality in so short a time says something about the dynamism of American culture.

Now, the data was collected while I was doing interviews with people who subscribed to the mutual fund owned by my client. The Black Athena data did not bear on the mutual fund issue in a direct or useful way. Nothing of the client's interest is compromised by its revelation.

Often, the extra data is not so spectacular as this. Sometimes it is, when we are going a project, say, on cleaning project that we hear a mother talk about new models of child rearing that we are gifted with something revelational. We may published as a note or a query and the interests of the maker of cleaning projects is compromised not at all.

Now to be sure, there are moments when it is frustrating to observe the silence that is our professional obligation. I believe that a project I did recently for Mark Murray at Diageo helped uncover an important shift taking place in Western cultures. But this finding is so essential to Diageo's competitive advantage, it must be kept utterly, scrupulously secret. There can be no compromising on this point. But these moments are, I think, an interesting consolidation. It is precisely that we have really nailed something that we are most required to shut up about it. Keeping secrets is not just a point of honor but a badge of honor.

Blogs are of course the perfect medium for our notes and queries. So the technology is there. I think we can expect editors to step forward and perform some of the work of pattern detection and aggregation, reporting back to all those who contributed and the world at large. Indeed, this function could be take another step forward, as these editor treat bloggers as stringers, gathering data in our many little projects and drawing them together into embracing understandings of the present and future characteristics of American culture. This is almost precisely the model used by Lewis Henry Morgan (1818 - 1881), one of the founders of American anthropology. (Morgan working as a lawyer by day, wrote a way to colonial administrators around the globe and implored them to collect kinship data on his behalf.)

Note

There is an interesting exercise called *Savage Minds* and subtitled *Notes and Queries in Anthropology* that might serve as a precedent for what I am proposed. It is a "collective web log devoted to bother bringing anthropology to a wider audience as well as providing an online forum for discussing the latest developments in the field." http://savageminds.org/ or Ethno::log   http://sonner.antville.org/topics/fieldwork/

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Larger than life: personal and social transitions within Type 2 diabetes

LISA REICHENBACH
AMY MAISH
In-Sync Consumer Insight

Type 2 diabetes, a chronic illness, is reaching epidemic proportions in North America. Pharmaceutical and consumer companies alike are embracing ethnography as a means to gain insight into the condition and to meet the complex needs of diabetics. This paper explores three topics that emerged from our ethnographic work in this area. First, we discuss the contribution of ethnography towards understanding the lived experience of Type 2 diabetes. Second, we suggest Type 2 diabetes should be viewed as a meta-transition that encapsulates four types of transition, each of which is an important aspect of the diabetic experience, and which may provide critical insights in an applied context. Third, we argue that applied ethnography can be dramatically enriched by an anthropologically and theoretically informed approach, without which the experience of, and transitions within, Type 2 diabetes cannot be fully understood and the social and business benefits maximized.

Introduction

Traditionally, the health burden of Type 2 diabetes has been borne by individuals and families.[1] In this context, the notion of transitions is meaningful because every diabetic person progresses through disease stages and treatment strategies, each of which make different demands on the mental and physical resources of the person. Currently, however, we can also associate Type 2 diabetes with a very different kind of transition. As rates of Type 2 diabetes explode globally, the disease is reconfiguring from private experience to global public health crisis. This transition, and the news coverage, diabetes research, advocacy, and public debates it entails, lifts the question of *who* gets diabetes and *why* they get it into prominent view. This, in turn, has a profound impact on individual diabetics understanding of what is happening to them, their disease experience and how they approach managing their condition; it also shapes the understanding of those who do not actually have diabetes, but who may choose to adopt strategies to minimize risks. In a business application context, clients may be motivated to understand prevention or treatment strategies, depending on their product or service offering.

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[1] Type 1 and Type 2 diabetes were formally distinguished in 1959. Please see http://www.diabetes.ca/Section_About/timeline.asp for an overview of the timeline of the illness.

This paper attempts to characterize the private transitions of the diabetic person and the current social transition of the disease itself, to illustrate how both affect the diabetic experience, and to indicate why this level of understanding of Type 2 diabetes is relevant – indeed essential – in applied market research. In so doing, we advocate for a disciplinarily and theoretically informed approach to ethnography that assumes that while any well-designed and executed market research project may yield meaningful insights, the richest and ultimately most applicable insights are produced by research that acknowledges the authentic complexity of an issue such as Type 2 diabetes, and that actively draws upon existing social scientific knowledge in its pursuit of answers. Our views have been shaped by a number of projects we have conducted with Type 2 diabetics for pharmaceutical and consumer goods clients who themselves have had diverse interests and business objectives. Ethnography has been a frequent component of these projects, which, while highly varied, shared as a criterion of success the need to understand the *experience* of Type 2 diabetes and the contexts in which people grapple with self-care, food choices, treatment options and regimens, familial demands, shifting emotional ground and physical suffering so that, at a minimum, clients can speak to these constituents meaningfully, and optimally, so that they can design products or services in a way that truly meet diabetics' needs.

An Overview of Type 2 Diabetes

Type 2 diabetes is a chronic degenerative illness in which the body slowly becomes unable to produce or to use insulin. The disease takes a terrible toll on the body. Even in wealthy countries where diabetes education and treatment are usually readily available, Type 2 diabetes typically shortens lifespan by 10-15 years, and lowers quality of life, physically and emotionally, for many years before that.

The statistics surrounding Type 2 diabetes are astonishing. The rise in incidence and the forecast increase in new patients are such that it requires little imagination to see why a hunger for insight into this area has expanded beyond traditional stakeholders such as clinical researchers and pharmaceutical companies, to include businesses as diverse food manufacturers to travel and leisure providers. For example the International Diabetes Federation, a non-governmental organization in Brussels and affiliated with the World Health Organization, reports that Type 2 diabetes "affects more than 230 million people worldwide and is expected to affect 350 million by 2025."[2] The American Diabetes Association states that, counting those who currently have the disease but are undiagnosed, "20.8 million children and adults in the United States, or 7% of the population…have diabetes." [3] Type 2 diabetes represents 95 percent of these cases. A study by the Centre for Disease Control reported in JAMA states that 1 in 3 children born in 2000 will develop the Type 2 diabetes and those numbers will go higher if you are Latin American or female[4]. *The*

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[2] http://www.idf.org/home/index.cfm?unode=3B96906B-C026-2FD3-87B73F80BC22682A, accessed 12 July, 2006.

[3] http://www.diabetes.org/about-diabetes.jsp, accessed 12 July, 2006.

[4] See Narayan, K.M et al (2003)

New York Times reports that Type 2 diabetes is America's "fastest growing health problem"[5] and that it "is the only major disease with a death rate that is still rising." [6]

Type 2 diabetes kills approximately 225,000 Americans a year and is the "leading cause of kidney failure, blindness and non- traumatic amputation."[7] Also deeply troubling is the fact that the average age of onset for Type 2 diabetes is getting steadily younger, so much so, that it is no longer referred to as "adult onset diabetes". More of us will be living with the disease and its devastating complications for longer. The ultimate manifestation could be its impact on longevity itself – during the previous century the human lifespan in North America has been steadily rising – diabetes could begin to shorten that average life span by as much as 10-15 years.

Diabetes and its Transitions: Personal Experiences and Social Discourse

Personal Experience

> *People don't really care that much. You tell them [and they say], "Yeah, I got an aunt who's diabetic, I've got some relative who's diabetic, they all know somebody who is diabetic. But they don't know what the impact of that is." (Alice, 51)*

What is it like to be one of these numbers? For patients, perhaps the most significant aspect of Type 2 diabetes (and one that has considerable implications for market researchers) is its chronicity.[8] People who develop Type 2 diabetes have it for life, which means always living with symptoms or the fear of them, and also managing a burdensome self-consciousness about all daily choices – from the food one eats to where one can safely go on holiday – that could affect one's diabetes management.

The demands and toll of living with Type 2 diabetes ultimately affects so many aspects of their lives that we have come to view the disease as a meta-transition, within which a host of related transitions play out. The physical effects of the illness, though they may vary from person to person, are essentially linear, that is, the disease gets progressively worse over time. Typically, this inexorable transition, and how patients, healthcare providers or commercial stakeholders can best manage it, draws the most focus in the clinical

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[5]http://www.nytimes.com/2006/05/17/nyregion/17diabetes.html?ex=1152849600&en=4a8fe23da6d4ea08&ei=5070, accessed 12 July, 2006.

[6]http://www.nytimes.com/2006/05/16/health/policy/16diabetes.html?ex=1152849600&en=866cc8cd04456ffc&ei=5070, accessed 12 July 2006.

[7] *Ibid*.

[8] See Kleinman (1988), Mattingly & Garro (2000) and Heurtin-Roberts & Becker (1993).

literature, and indeed is a primary concern in market research. Although our scope in this paper is wider, it is essential to consider this most fundamental aspect of the disease experience.

At the outset of the illness, Type 2 diabetes is typically asymptomatic, and people may only find out they have it during the course of routine check-ups or treatments for other illnesses. On one level, patients may be dismayed to hear that they are diabetic, but after the initial shock wears off, many may question whether they *really* have it, or if it is really as serious as their doctor says: after all, they feel fine, so how bad can it really be? Sydney's story is illustrative of both this view and the consequences. Sydney is a 59 year-old diabetic living in a major North American city. He is college educated, worked in a professional administrative capacity until he took early retirement, and through insurance, has access to high-quality healthcare.

> *I remember 15 years ago [the doctor] was telling me I'm borderline and he had a big sign on his office about diabetes and the effects but I was borderline, I liked to eat. I wasn't physically feeling any effects so I tended to ignore it.*

However, left untreated Type 2 diabetes will soon start to take its toll. For Sydney, this meant that he had seven relatively trouble-free years, then:

> *I developed an ulcer on my toe, which was the first real problem. That one eventually healed although they didn't tell me at the time I was a candidate for amputation…. A couple of years later…I sort of amputated my own toe. It's funny now but I remember I was cutting my toenail and remember earlier I said I think the word is necropathy [sic] where you didn't have the feeling; I was cutting my baby toenail and unknown to me I was cutting the flesh and not the nail.*

The healthcare team treating Sydney saved that toe, but shortly thereafter he developed an ulcer on another toe that refused to heal, which necessitated amputation. When we met with him, Sydney had recently successfully fought off another amputation, but was struggling with shortness of breath, fatigue and other health concerns that made mobility difficult. Although he expressed the hope that his immediate situation would improve enough to return him to his former energy levels and mobility so that he could pursue modest travel and other activities he had anticipated in retirement, he seemed accepting of a certain diminishing of possibility. Diabetes was his future, and was written into his body.

Sydney was employing two treatment strategies typical for his stage of Type 2 diabetes: dietary management and oral medications. In Type 2 diabetes, the immediate goal is always to control blood sugar levels, and secondary goals are to minimize the risk of the impact of symptoms (such as Sydney cutting his toe because he couldn't feel it) and managing frequent co-morbidities such as high cholesterol, obesity, high blood pressure and depression. The treatment options for diabetics revolve around two principles: self-care

and pharmaceutical intervention. Self-care refers to managing one's diet, exercising, regular monitoring of blood sugar levels, frequent checking of toes and extremities for ulcers or wounds, and scheduling regular visits to health treatment professionals, be they family physicians, endocrinologists, diabetes clinics and so on. Health care professionals may encourage pre-diabetics and early stage diabetics to try to manage their blood sugar levels exclusively through diet and exercise, only moving to more aggressive treatments if that appears to fail, or if, notwithstanding significant behavioral change, a patient's blood sugar levels remain high or unstable, and the diabetes continues to progress.

There are two classes of pharmaceutical therapy: oral medications and insulin. Oral medications work on two principles: boosting the amount of insulin in the bloodstream, or helping the insulin in the blood stream work better. [9] Because they work differently, patients may take both kinds of oral medication simultaneously. Physicians prescribe insulin for Type 2 diabetics if their blood sugars are not controlled with diet, exercise and oral therapies. Patients typically inject insulin, but may also use insulin pumps or inhalers. Type 2 diabetics can have highly varied responses to arriving at the point of insulin injection: some may loathe the real or perceived stigma of injection, whereas others may appreciate the greater level of control it delivers.

The physiological and treatment transitions that Type 2 diabetics experience are a natural focus in diabetes research. However, research that focuses only on this aspect of the diabetic experience risks missing the significance of the lived experience of diabetes, and with it, challenges and opportunities for businesses seeking to reach diabetics or those who care for them. Anthropologically informed literature[10] on diabetes reminds us that diabetics struggle to incorporate the disease into their sense of personhood and indeed, into their whole lives. In our experience, it is often this latter emphasis that preoccupies diabetics and defines the diabetic experience. This reality highlights the contribution that an anthropological approach and sensitive ethnography can make in the quest to understand Type 2 diabetes. Witnessing the context in which people are managing diabetes, and using this to expand upon what they tell us about living with the illness, brings us closer to their reality and the physical and emotional needs and wants with which they struggle, and which present raw opportunity areas for businesses.

In respect to emotional and social transitions, then, the central tenet is that while physiological and treatment transitions are linear, the emotional and identity transitions are recursive. The chronicity of the illness, the imperatives of self-care, diabetes discourse and of course physical decline work individually and together to set a stage on which Type 2 diabetics face a number of emotional assaults. People respond to these challenges in different ways depending on their inner and external resources, and even at the individual level, over the course of one's illness. Some diabetics may get "stuck": while their physical

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[9] http://www.umassmed.edu/diabeteshandbook/chap09.htm, accessed August 24, 2006.

[10] See, for example, Ferzacca 2000, Hunt 1998.

disease progresses they remain emotionally paralyzed. For example, Alice, a youthful fifty-four year-old professional, told us that, despite living with Type 2 diabetes for a decade:

> *It still feels like it's pretty raw. It causes me to feel depressed every day. I wake up thinking, why do I have this? I see these old guys in the bars here drinking beer, smoking cigarettes and I know I can't do that. I've got my little machine and all these little frickin pills, and like how come I've got this when other people, like the lady downstairs, she's 81 years old, she eats and drinks, she has 14 eggs a week…. It's very hard to be strict all the time and I feel that's what I have to do to keep on top of it.*

Alice is actively trying to manage her condition. She regularly seeks new diabetes information and support to help her manage her diabetes. However, the seeming unfairness of the illness, frustrations with managing it, and the uncertainty that it throws over her future, have devastated Alice emotionally, and any setback in self-care or progression of the illness reinforces the rawness she feels. Further, cycles of frustration and depression also invite recursive denial. Healthcare providers and market researchers occasionally express mystification that some Type 2 diabetics simply do not appear to take their illness seriously enough to manage it aggressively, even after symptoms start to appear. Alice, however, explained to us that despite waking up with diabetes on her mind every morning, she still felt that she was in "some ways in denial." Diabetes was simply too big.

Further, the constant pressures of self-care itself can take a significant toll emotionally on diabetics. Because self-care is a cornerstone of diabetes management, healthcare providers routinely emphasize the importance of blood testing, food management, and if relevant, weight loss. All of these areas are potentially fraught for diabetics. For example, some diabetics avoid monitoring their weight or blood levels if they think the results are going to be "bad". Alice, who had the accoutrements of self-care – a blood monitor, an elliptical machine, and self-help books – prominently on display in her apartment, had avoided weighing herself for several weeks prior to our visit because she was "afraid" of the results.   Further, as Ferzacca (2000) has documented, diabetics may adopt strategies, such avoiding full disclosure to their physicians, or fasting for the day before a physician's visit in order to get a desirable blood sugar reading, for fear of being upbraided. Sydney himself practiced this very tactic to avoid, as he put it, "getting heck" for failing to manage his condition.[11] In both cases, an emotional imperative – not to be "in trouble" – trumps the imperative of self-care.

There is a clear moral dimension to this process – which, as we will see in the following section, is profoundly tied to the wider social discourse about Type 2 diabetes. Self-care, optimism and control are the by-words for "good" in diabetes management; lapses, vacation, depression and failure to control are the by-words for bad. Alice explicitly makes this connection, albeit it in a very personal frame of reference:

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[11] Sydney would subsequently reward himself for his forbearance, and for having endured the physician's visit, with a large plate of bacon and eggs.

> *My whole life my mother has been, you're lazy, you're lazy, and when I don't take my*
> *pills and when I eat what I'm not supposed to, then I feel like I'm that lazy kid again,*
> *I'm not doing what I am supposed to do.*

Arguably, this exerts a further emotional toll in so far as the diabetics may chastise themselves, or be chastised, for being visibly out of step with North American values of optimism and productivity.

Type 2 diabetics also typically find themselves grappling with social transitions in which aspects of their identity and social roles may be challenged. Hunt and Arar (2001) have documented the struggles some women face as the requirements of self-care conflict with their ability to fulfill their role as caregivers to others.[12] We have also found that diabetes reaches into familial relationships in powerful ways. For example, Victoria told us that she has told only her two sisters about her diabetes, despite the fact that she sees her wider family frequently. The reason is simple: she wants to avoid being treated like a child by her wider family or friends:

> *I think there's a perception of diabetics and it's not a positive one. If people know*
> *you're diabetic, then [they ask questions like] "should you be having this dessert?" I'm*
> *a grown woman. I don't want someone to make that choice for me.*

Other diabetics describe transitions within household roles as they seek to find ways to accommodate diabetes within the family. For example, John, a thirty-nine year old diabetic father of twin girls, told us that he was concerned about providing a role model for his daughters:

> *I think part of it too is our kids haven't had good modeling for what is healthy*
> *behavior. I don't think they understand what diabetes is, what their Dad has, and so*
> *they see me eat good and eat bad, so I'm not necessarily giving them the good signals too.*

Meanwhile, John's wife, Mary, noted dryly that John relieved her of grocery shopping duties a long time ago because she didn't buy "good stuff", even though "he buys just as much crap."

In sum, Type 2 diabetes, a physiological illness, is itself a meta-transition in a patient's life. Despite its innocuous and asymptomatic beginnings, the disease will eventually progress. If a patient has access to healthcare, his or her treatment strategies will attempt to keep pace with the disease. But while these aspects of diabetes rightly attract a great deal of attention from researchers, the less noticeable but also deeply felt emotional and social transitions are also essential components of the diabetes experience. However,

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[12] See Hunt and Nedal (2001).

the fullest understanding of the experience of Type 2 diabetes requires a further step: viewing it from a social as well as a personal perspective.

Social Discourse

Type 2 diabetes can strike anyone, but unlike Type 1 diabetes, which appears to be purely genetic in origin, the etiology of Type 2 diabetes is more complex. In North America, people of Hispanic, African-American and Native American descent are particularly at risk, suggesting the possibility of some genetic predisposition; however, overwhelmingly the key risk factors associated with the disease are low socio-economic status, obesity and inactivity.[13] Because of this, Type 2 diabetes is frequently tagged a "lifestyle" disease and is embroiled in North America's heated discourse about the rise in obesity. Commentators typically invoke a number of arguments here. The first, and perhaps most generous, is strongly social determinist: conditions, such as the prevalence of fast food and dearth of resources to encourage physically active leisure and play (public school grounds, safe parks, etc.) conspire against already disadvantaged Americans to make them heavier and sicker. At the opposite end of the spectrum, the less generous argument is that obese and diabetic Americans are greedy and out of control, quite literally eating themselves to death, fitting symbols of gluttony, consumption and even – stretching it - the rise in personal and national debt.[14] In both of these arguments, Type 2 diabetes is configured as a social exemplar of something gone wrong, although the former is more likely to absolve the individual of responsibility and the latter somehow seems to contain the notion that the individual should be able to chart a different course if he or she had sufficient backbone.

The social discourse has at least three immediate and interrelated effects on diabetics' experiences. First, as we saw with Alice, it creates the framework for their own evaluation of their condition and management. Thus, changes within the discourse could theoretically shape transitions within diabetic patients' emotional or social spheres, or at the very least, provide them with new and different raw materials from which to make sense of their illness. Second, diabetes discourse creates a backdrop against which others react to them. Family members, friends, healthcare providers – all those who compose a diabetic's social and health universe – hold views, and thus behave, in ways subtly shaped by diabetes discourse and the prevailing views it may enshrine about responsibility for, and the locus of control of, diabetes.

Third, diabetes discourse directly affects such tangible issues as fundraising for research. In a recent *New York Times* article, for example, Richard Pérez-Peña (2006) described how some parents of Type 1 diabetics are seeking to differentiate more emphatically the two forms of diabetes in order to excise the stigma of Type 2 from their own fundraising efforts. Their argument is that Type 1 diabetics, who in no way can be

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[13] There is also a well-documented lay discourse that embraces stress as a key factor in diabetes. See Schoenberg et al. (2005) and Poss (2002).

[14] See Lears, J (2006)

blamed for their disease, are more likely to attract sympathy – and thus research dollars – than those Type 2 diabetics to whom society assigns responsibility for their condition.

Methodological Implications

Patient-focused healthcare research faces a recurring challenge of how to capture the breadth of a chronic illness experience, and in particular, to identify which aspects of that experience are most significant to patients. This challenge is complicated by the fact that, as we have seen, chronic degenerative illnesses such as Type 2 diabetes involve not only symptom and treatment transitions, but also recursive emotional and social transitions. In other words, the disease experience is always on the move, with different aspects rising to, or receding from, surface consciousness and focus, depending on the moment. Ethnography, with its focus on lived experience, context and deep rapport between interviewer and informant, is clearly a strong choice for cultivating a deep understanding of the patient experience. Used alone or in combination with other research methods, a researcher can reasonably hope that insights gleaned through ethnography will be likelier to reveal significance nuances of experience that methods such as focus groups or surveys could miss. Furthermore it enables informants to control and guide the researcher through what is personally significant about their lived experience. The interaction with the physical (home, tools, and other elements) blend with the personal and social elements, each of which can uniquely inform the ethnographer. Indeed, a rich body of social science literature on chronic illness, derived in no small part from ethnographic studies, bears this out.[15]

Market research based ethnography, however, typically has a built-in limitation. Our projects are usually short and intense relative to academic research, and while principles of ethnography, such as immersion in the context, may still facilitate an understanding of an illness experience, the absolute limit on time spent with an informant, or in a given context such as a diabetes clinic, can hamper an understanding of the impact of chronicity. One can try to work within these limits, or one can try to find ways to circumvent them, and to produce insights that still tackle the impact of chronicity head-on.

While there are no perfect solutions to the conundrum of chronicity, we believe strongly that some limitations can be overcome by adopting a disciplinarily informed approach to research, and by embracing a number of tactical solutions. As alluded to earlier, there is merit in devising a research plan that is informed consistently with perspectives and information drawn from other secondary research and theory. What is *de rigueur* in academic work is for some reason frequently overlooked in applied work, perhaps because of perceived time or budget constraints. We have found, however, that a focused literature review can dramatically enhance outcomes of a project. Bluntly, this is a form of existing insight that can contribute an opening level of sophistication to a research plan that might otherwise require reinvention. Further, it can help to foster the groundwork for action-

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[15] See Kleinman (1988), Mattingly & Garro (2000) and Heurtin-Roberts & Becker (1993).

oriented insights by building from known or established constructs, which are then applied to the specific circumstances of the client and honed into proprietary applications.

A second disciplinarily informed approach to research is to monitor the discourse that surrounds Type 2 diabetes. Raising awareness of the discourse allows the client and researcher to follow the evolution of a socially-embedded illness such as Type 2 diabetes. This not only fosters greater understanding of the illness experience, but practically paves the way for clients to have better communications with their stakeholders at all levels, be they through advertising campaigns, literature for physicians or patients, or training their sales staff.

Moving to tactics, a good place to start is with the careful selection and recruiting of persons from various stages of the illness. However, defining the most helpful stages may not be a straightforward process. The client's needs and target market are obviously a first orienting point; for example, a pharmaceutical device manufacturer may wish only to glean insights about insulin dependent diabetics, or a food company may wish to target specifically newly diagnosed diabetics. However, one may also wish to consider segments elsewhere on the spectrum of chronicity, in order to capture insights that transcend physiological and treatment issues, and by comparison, to pinpoint what, if anything, is unique to the "snapshot" in which the client is interested.

Another helpful tactic for managing chronicity is to layer one's methodological approach. We have used self-ethnography very successfully to this end, empowering informants to tell their own diabetes story into a journal composed of highly engaging and creative exercises. Our self-ethnographies always have three critical components: "grounding exercises" that ask informants to describe themselves and their lives, including their past; "in the moment exercises" that focus on their immediate present and perhaps the specific aspects of their disease experience in which we are interested; and finally, "reflective exercises" that invite the informant to review what they have written, and to analyze their own experiences for insight. The structure of the exercises is designed to stimulate the informant's reflective and analytic talents, which, over the course of a week, leads the informant to self-revelation and quite literally a new consciousness of their disease experience. Although living with a self-ethnography workbook for a week is hard work for informants, and needs to be compensated accordingly, informants typically love the experience because of the self-insight they achieve. For us, their insights, as much narrative and pathography as ethnography, provide a rich addition to insights gleaned by other methods. The informant's self-analysis, together with our analysis of the total book, and comparison with other books and in-field ethnographies, typically gives rich insight into living with an illness for extended lengths of time, and captures details, such as the warp and woof of emotional and social transitions, that may be fruitful for clients.

Business Application

If the disciplinarily and theoretically informed ethnographic research that we describe leads to sound and illuminating insights into the experience of Type 2 diabetes, then as researchers we may say we have achieved a measure of success. But in the context of an applied environment, we measure full success by whether we have helped our clients with the business challenges they face, be they driving growth, spotting new opportunities, optimizing the language to connect with the consumer and so on.

While client confidentiality precludes us from providing real-world examples of insights and recommendations we have given to clients, we may at least offer some perspective on the options we believe exist to make use of the insights described here in an applied context in which the goal is to grow our clients' businesses by giving them strategies and tactics to meet real consumer and patient needs.

An orienting principle of our approach is that our clients must be partners throughout the research, analysis and strategy phases of a project, so that ultimately they can internalize the insights, envision the implications, and more easily implement recommendations. Because each client has its own preference for terms of engagement, we do not force one fixed process upon them; however, we always seek to find a formula that will work for them. For example, in pharmaceutical research where it is inappropriate for clients to accompany us on an ethnography, we may provide copies of self-ethnography books (in which informants' identities are masked) so that the client still has a sense of immediacy and intimacy with the patients. We also routinely conduct customized workshops in interim or final phases of a project, where clients spend the first part of the session absorbing the insights, and the latter part working through the implications for their business challenges, and even, perhaps, starting to flesh out solutions or new opportunities.

Clear communication is pivotal throughout this process. We eschew theoretical language, but we also trust that our clients are willing to take on complex ideas and subtle insights if there is clear value in them. While PowerPoint is a staple in debriefs, we also embrace other means of communicating insights. For us, an important element in accurately conveying insights is using storytelling and narrative to create impact. By demonstrating (even in composite form) the stories of the individuals from ethnographic research, we can add depth and texture to the insights for our clients. One highly effective technique is DVDs. These DVDs not only bring the story to life for clients, they allow clients to envisage where they might best leverage them. They also permit the stories and insights to be told again and again, even if the research team is not present.

Another key element of transforming insights into substantial business-building opportunities is to know *which* insights matter. In applied settings, all too often the fieldwork aspect of ethnography defines the process. The importance is attached to what one saw and heard. These things are important. However, as we have argued in this paper, in relation to Type 2 diabetes, we believe that fieldwork must be accompanied by robust analysis, which is,

as much as possible, informed by other features of the anthropological approach, including, among other things, literature reviews, an analysis of the discourse of the issue, and a comparative approach. Through these means, we strive to form composite understandings of issues so that, when faced with a particular challenge, we have a store of information on which to draw to understand which insights matter and where the greatest opportunity for our client lies.

Consistent client engagement and ownership, clear communication, and robust analysis that identifies which insights are most significant for a given client are thus three means by which we try to ensure that the insights we generate can ultimately drive action. The actual form that "action" takes varies between projects, but building on the discussion here, we would argue that there are two immediate, interrelated opportunity areas. The first lies within the realm of strategy, the second in tactical offerings. The key question in the former is, "What is your overall opportunity as a brand?" The key question in the latter is. "How do I realize that opportunity in the real and often painful world of the diabetic?"

Since it is impossible to separate strategy and tactics wholly, let us consider the opportunities for both that the insights raised here could open. One of the most obvious possibilities is that a brand ought to look at its offering and values and decide where within the diabetic experience its greatest area of opportunity lies. For example, is it in addressing, either through products or communications, a physical, emotional or social aspect of diabetes? Or does the opportunity lie in meeting two needs simultaneously? For example, a travel and leisure company, putting together the insight that diabetics crave respite from the constant vigilance that self-care is supposed to demand, and that diabetics may not disclose their condition because they fear being patronized by observers, could create a literal "diabetic vacation", perhaps a cruise, that features days of delicious meals suitable for diabetics, safe activities and so on. While this example is admittedly a bit whimsical, we are actively working with our clients to develop a number of real opportunities that have arisen from looking at diabetics' emotional and social needs.

Another broad strategic territory is for a brand to participate actively in the very discourse of diabetes. In business, we frequently forget that we participate in culture and *de facto* may have an impact on the constituents to whom we try to appeal; the opportunity lies in recognizing this and thus trying to shape, or add concepts to, the discourse. For example, investing was revolutionized by the concept of "pay yourself first" – a simple but powerful proposition. Recognizing the trends in the diabetes discourse, and its effects on diabetics, a brand should ask itself what proposition it might introduce that could speak meaningfully to diabetics' needs and build its business? This could be all the more powerful if the proposition is linked to the brand's own values and ethos, so that, for example, a sporting brand could contribute notions of individual empowerment and success, and a family-based consumer brand could contribute notions of the power of the collective will.

Finally, there is a significant opportunity area in the realm of brand experience. Brand experience has, of course, been something of a buzzword in the last decade, but

paired against the notion of a disease experience, it becomes a far more powerful proposition than one customarily encounters. Typically, good brand managers seek to create a coherent brand experience out of their disparate touch points. The best of them may even consider additional measures, such as introducing new touch points to effect the best realization of the desired experience. But we would argue that the opportunity with Type 2 diabetes lies not in crafting a brand experience driven by company-focused considerations, but rather in allowing the brand experience to be shaped by needs stemming from the illness experience of the diabetic, in all its physical, emotional and social complexity. For example, if we know that isolation can be part of many diabetics' experiences, how can a brand experience be designed to assuage, or at least speak to, the needs that may arise from this? Perhaps it could be designed around a strategy of solidarity, which is articulated coherently across every brand touch point. For example, one might be to create engaging profiles of people living with diabetes (perhaps even with edgy, fun narratives and plot lines) that are included in medical packaging and regularly updated. This could have a dual effect of creating a sense of a community of others who share the same experience and *possibly* even generate some degree of anticipation around opening the package.

Conclusion

If the current trajectory continues, Type 2 diabetes will only broaden its global reach in the coming years. The effects will be evident on health care systems, in the pharmaceutical world, schools, communities and of course on diabetics themselves As the disease continues to evolve, so will the *experience* of diabetes. It is therefore important for companies and marketers to understand the transitions inherent in the condition. Indeed, we believe that companies and marketers can to some degree affect these transitions, be it in terms of treatment or in the evolution of the discourse of diabetes, and that this can be converted into an important opportunity area.

Notwithstanding constraints posed by a commercial context, disciplinarily involved ethnography is a powerful means through which to understand the experience of Type 2 diabetes and to identify areas of opportunity for influence and intervention. Good research and strategy partners should work consistently to serve as a conduit between diabetics and clients. To do so, these partners need to generate good insights, identify those that are most significant, communicate them well and help to translate them into action so that clients build their businesses and diabetics get the services, products, concepts and communications that will mean the most to them, and that make their illness experience more manageable and bearable.

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Design for Healthy Living:
Mobility and the Disruption of Daily Healthcare Routines

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This paper reports on how people express health concerns as they move around their homes and travel between their homes and workplaces, stores, gyms, restaurants, friends' homes, hotels and other locations. We gathered stories from focus groups and in-home interviews with people with a broad range of health needs, and from these discussions, support for mobility emerged as a key issue for making health maintenance routines easy and resilient in the face of disruptions. The things people carry with them and access at strategic places help them maintain their health routines in the face of stressful and unforeseen situations.

Living with a chronic disease, such as diabetes, forces people to make difficult decisions on a daily basis, weighing the impact of otherwise small, incidental actions against unknown cumulative effects in the future. An offer of a piece of cake at a party can trigger an assessment of the pleasure of celebrating with loved ones against a fear of potentially serious health consequences. Continuous monitoring of one's health can lead to feeling overwhelmed, becoming depressed, and denying the need for behavior change. Our field study of people with health concerns showed that they carefully designed routines as a coping strategy to minimize disruptions to their healthcare practices. These self-care routines reduce anxiety by providing structure. Interestingly, practices for coping with disruption are closely linked to mobility. We found that individuals, and those close to them, deliberately design for contingencies by carrying a wide range of objects and accessing them at strategic places, arming themselves against the unexpected.

The Study

The aging population and epidemic spread of chronic diseases, such as diabetes, are driving healthcare issues to a prominent role in technology research. Worldwide, 171 million people suffer from diabetes, with 20 million people in the United States alone (http://www.who.int/dietphysicalactivity). Diabetes is incurable; instead people manage it through a combination of exercise, diet, and medications. With appropriate management, the prognosis for diabetics is good, and people live with their disease for decades by managing it on the daily basis. Even small improvements in the quality of life for people suffering from chronic diseases can have enormous impact both on the people with the diseases and on those close to them. The potential to make such a large impact has created strong business

interest in developing products and services to address the world's burgeoning healthcare needs.

Our organization is interested in collaborating with other companies to translate healthcare research into business value, and we created this internal project to explore how to leverage our existing competencies in ethnography, Human-Computer Interaction (HCI), usable security, and ubiquitous computing in the healthcare domain. Discussions with medical practitioners interested in chronic disease management in the home shaped the scope, and we intended to use fieldwork to support the design of a device in the home to help those with chronic diseases monitor their health. Our organization had existing technologies that facilitate the connection of devices within the home and allow secure transmission of data. We planned to modify these technologies via in-home evaluation, similar to prior work in ubiquitous computing (e.g. Consolvo et al, 2003; Rowan and Mynatt, 2005). The medical professionals suggested diabetics as promising initial candidates for monitoring technology, a fit also noticed in HCI research (Frost and Smith, 2003; Mamykina et al, 2006), and grounded in worldwide need. More generally, our research aims were to: (a) comprehend people's perceptions about health in the home, (b) identify similarities and differences in the practices of those who monitored their health, and (c) highlight opportunity spaces for applications in home healthcare.

Method

To start answering these questions, we conducted an exploratory field study consisting of focus groups and in-home interviews. Twenty-nine participants recruited by a market research firm took part in the study, nineteen with diabetes at varying levels of severity, and ten others with a broad range of health goals (e.g. pain management, learning to maneuver a new prosthetic leg). We expanded the scope beyond diabetes to identify a broader range of needs and possibilities for technological intervention in chronic disease management. The fourteen men and fifteen women ranged in age from 28 to 65 with a median age of 48. Eleven of the participants were African-American, Asian, or Hispanic; the others were Caucasian.

Story-Collecting Focus Groups– The focus groups were designed to elicit open-ended narratives about health issues, and participants were encouraged to respond to each other's stories. We did not solicit opinions on proposed technology prototypes; instead we began by covering a table with index cards labeled with concepts we thought would be useful for triggering discussion, e.g. "relationships," "diet," "why bother?" and "treatment." Each person was asked to select a concept from a card that they wanted to discuss in relation to their health. There were also blank cards for recording concepts not represented. As the participants told their stories, the authors asked questions about how they gathered information, what happened when their strategy for taking care of themselves didn't work and things didn't go according to plan, and how they dealt with their health issues in public and with their families. Participants also asked each other questions, sometimes arguing, and

exchanged notes about medical resources. Two of the 90-minute focus groups were only diabetics, and the third group was a mixed group of those with other health concerns. Audio from the sessions was transcribed.

In-Home Interviews– Of the twenty-nine focus group participants, five diabetics and five non-diabetics participated in 90-minute in-home interviews within a week of the focus groups. The participants captured the diversity of the focus group participants with a mix of genders, ages, and ethnicities. The group included people living alone, in couples, and with roommates. On the advice of the medical practitioners' Human Subjects Committee, none of the interview participants had children in their home. Participants included diabetes, someone with Crohn's disease (a gastro-intestinal disorder), a chronic back-pain sufferer, a middle-aged man trying to loose weight, a cyclist training for a 200-mile ride, and someone following a rigorous diet of natural food/herbal medicine. Participants were asked to show places in their homes important to their health and the tools in those places used for self-care. In addition to showing tools, participants were asked what information resources they used to learn about their health. After the tour, we asked the participants more questions about how they coped with exceptional events that disrupted their usual practices. We captured the interview on a mobile digital audio recorder, and it was transcribed. The important places and tools were photographed.

Analysis– The authors separately read through the almost 17 hours of transcripts and collated themes and concepts into spreadsheets. Following a grounded theory approach (Strauss, 1992), analytical concepts emerged from the body of data, which were then refined over a series of discussions.

Findings: Themes of Self-Care

The field study results showed that our initial assumptions about in-home health monitoring overlooked some important issues that people monitoring their health were concerned about: that is, the experience of living with the imprint of a health condition on the body and how that experience motivates healthcare routines including the placement of objects and artifacts in environments where people moved from place to place. We identified two key themes in the experience of living with a health condition: bodyscapes and objects used in daily self-care routines. Understanding these themes shifted the focus of the project away from the idea of introducing a single health monitoring device into the home towards a more holistic approach integrating objects that are not strictly medical and that could be a part of multiple environments.

Bodyscapes

In exploring health and self-care narratives it was clear that the imprint of health concerns on the body takes an enormous toll. Our participants described their bodyscapes in different ways, including identifying a range of physical symptoms that made self-care challenging and describing how their health conditions impacted their image of their bodies. For example, the diabetics in our study talked about developing calluses and bruises from finger pricks and shots, getting cold sweats, and fearing falling into a coma.

> *You have to actually learn to sit there and just feel like you're going to die because you heart rate goes up really, really high. It actually kind of hurts, so you just sit there and keep telling yourself I will survive. I find with doctors they don't think diabetes–it's not a big deal. Every doctor I've ran into there is just like "Oh, you're okay," and it's so common, they don't think anything of it.* – 28 year old woman with diabetes.
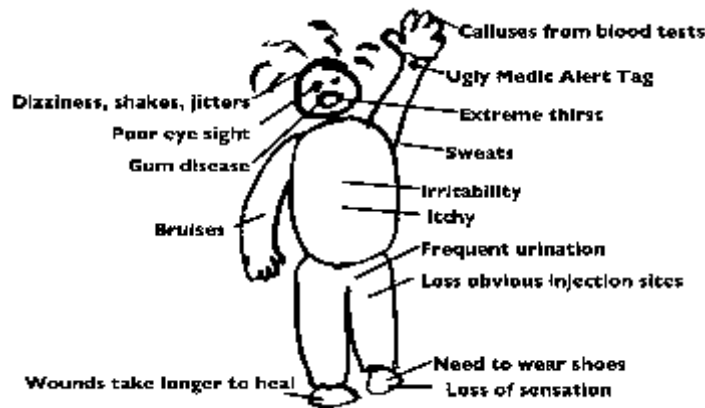
FIGURE 1. Imprint of diabetes on the body.

This imprint on the body contributes to the emotional charge of diabetes, and the diabetics told us that having diabetes is "a big deal," even though from a medical perspective it can be easily managed. In addition to its corporeal impact, diabetes also has an emotional and social impact. For example, diabetes contributes to clothing choices because subtly injecting a needle through clothing while seated at a table or desk produces the risk of blood spots on fabric that someone else might notice. The subtle seated injection approach was not a possibility for one woman when she wore a dress. She preferred to inject insulin into her abdomen, but in a dress, she explained, she needed to go to a bathroom stall to lift it up for her injection. Footwear was an issue for some participants as diabetics need to protect their feet from wounds and are discouraged from going barefoot. Medic-Alert identifying jewelry was derided as unattractive.

Body image– Self-perception of the body came through as an important concern for all the participants in the study, not only the diabetics. For example, twenty-two of our twenty-nine participants reported weight-loss as one of their health goals, and the connection between appearance, food, and healthy eating came up repeatedly. Two overweight people described the way others talked to them as "uncomfortable and hurtful," with one going on to say people talked to her as though she lacked intelligence or were a child. Medical diagnoses also changed the way some thought about their bodies. One participant said that being diagnosed with diabetes was helpful because it moved his struggle with his weight beyond concern with appearance and dating. Similarly, a woman described how chronic back pain had motivated her to lose weight in a way that her appearance had not. Two women described past struggles with eating disorders, one of which reported focusing on getting rid of "the pooch" in her lower abdomen area and dieting down to a low of 88 pounds (40kg). Appearance as connected to weight remained so important to this woman that even though she introduced herself as an amputee concerned with her ability to maneuver her prosthesis, all of her comments during the discussion about self-image were about weight, and being an amputee didn't come up. Having an amputee in the study was an interesting counterpoint to the diabetics' well-articulated fear of amputation as a complication of the disease, a fear motivating some to treat their diabetes. Although three diabetics had also had cancer, the consensus in their focus group was that amputation was worse than death.

Family history– The participants' families played a role in their body image in three ways: lessons about self-acceptance, foods associated with their family's culture, and perceived genetic predisposition to disease and body type. This study took place in the San Francisco Bay Area, a multicultural area, and some study participants found it necessary to explain their family's eating habits. Two people mentioned immigrating and one mentioned having parents with poor English language skills. Several people mentioned their culture in the context of food. For example, one woman announced that she's Hispanic and her family members are fat because "everything is cooked with lard and deep fried," and that her husband's Chinese family was "big on rice," a problem for her plan to avoid starch. Others talked about genetics, saying, "My family are my excuse. I come from a long line of little plump ladies." The genetic connection was particularly relevant for the diabetics, many of whom mentioned having diabetic grandparents, parents, siblings, or children. One man connected these themes:

> *I see it most prevalently with my sister … in my estimation is in total denial. She doesn't monitor her diet. I'm from the South, it's where she still is, Alabama. The colloquial diet there is fried food, a lot of fat, a lot of fat. I mean my family is all fat, I mean we're just fat people. But over the progression of her disease … her eyesight is getting progressively worse. They amputated a toe.* – 46 year old man with diabetes.

Objects Used in Self-Care Routines

Our understanding of how living with health concerns impacted the bodyscapes of our participants was complimented by our finding that self-care entailed far more than following medically-based routines, such as being proficient at glucose monitoring for diabetics. Broadly, effective self-care involved the use of artifacts, information sources, emotional support, and planning for daily routines and emergencies. As participants took us on tours through their homes, we were particularly struck by the ways in which objects associated with people's emotional lives intersected with their healthcare routines. Again and again, participants showed us objects they used in health maintenance practices that addressed not only the body, but also the mind and the spirit. Moreover, certain objects such as mementos from friends embodied a source of strength and support, reminding people of their relation with others, whether as part of a family or spiritual community. We were shown silver-framed photographs of family members, boxes that held the ashes of beloved pets, and a videophone to communicate with young grandchildren. Our participants pointed out specific chairs, couches, beds, and candles that they used for meditation and relaxation exercises. Of the in-home interviewees, two of the diabetics had near-death experiences that had a significant impact on how they subsequently viewed their lives and health. There were alcoves that held religious icons and fresh flowers, and recordings of church sermons recommended by friends that they listened to while exercising.

> *[On the exercise machine] I kind of look out the window to see things passing by. Other times I use an audiotape, the one that's right beside you. [Responding to a question about what's on the tape] Believe it or not those are bible study tapes from Grace Church in Los Angeles, Dr. Reverend John McArthur. … I take care of my physical and spiritual needs at the same time. It's pretty cool that way.* – 50 year old man with diabetes.

Our participants had a far more extensive definition of tools for self-care than we expected. What was especially surprising was the prevalence of mundane objects that people associated with self-care at home. In response to a request to show tools used as part of their health practices, we were shown a colander (for rinsing fresh fruit and vegetables), a shoe insert (for correcting fallen arches), and an iPod (for playing motivating music to aid workouts). They pointed out special herbs, spices, and many kitchen utensils and recipe books; artful ceramic containers for syringes, and bookmarks saved in their Internet browsers, among other things. There were small stuffed animals placed on dressers near medical kits, and exercise machines in prominent places such as living rooms.

Self-care routines– Just as health practices thoroughly permeated living spaces and affected what objects people wanted around them, health concerns also infused daily routines. The placement of meaningful objects in the home and ephemeral experiences such as meditation sessions represented anchoring moments on the Sisyphean slopes of chronic disease. In addition to helping people meet their goals, self-care routines provided

comforting stability in the face of the emotional drain of managing health concerns. Some described routines designed to avoid tempting or difficult situations, for example always buying low-fat mayonnaise and diet soda so that regular mayonnaise and soda are never in the refrigerator to enable breaking a diet. Routines consolidate decision-making and align the outcome with high-level goals, instead of responding to the pluses and minuses of a specific situation. One person described how she made a decision to bike to work every day and just had to put on a rain suit if it rained without making an individual assessment of the weather saying, "If I had to decide every morning, I'd get kind of lazy and think 'Oh I don't feel like it today.'" Other routines focused on detailed preparations to enable healthy behaviors.

> *I've got a system where I just repack the bag as soon as I get home. If it's a gym bag with icky clothes, I just take the dirty clothes out, put the fresh clothes in right away. Or the swimsuit. I hang the swimsuit to dry and I remove the wet towel. And put a fresh towel in there, and then when the suit's dry the next morning, I just put the suit right back in the bag.* – 38 year old woman with Crohn's disease.

Disruptions and emergencies– Routines and the objects that support them act as a buffer against the unexpected, making people resilient against disruptions in their healthcare routines. The participants' potential disruptions ranged from inconveniences of minimal consequences, such as an overweight person leaving for work without their healthy lunch; to the socially traumatizing, such as the Crohn's disease sufferer vomiting or going to the bathroom on herself in public; to the life-threatening, such as a diabetic whose pancreas doesn't make any insulin (Type 1) and who will die if stranded without injection supplies. Example stories of disruptions generally took place away from home, and strategies for coping generally involved carrying extra supplies. Carrying extra supplies to plan for contingencies was so important that six of the ten in-home interviewees specifically mentioned bags (purses, backpacks, gym bags, and travel bags) as tools they use to take care of themselves. Not only was the content of the bags revealing, but also the context of how and when items in them were used clearly demonstrated the nuanced and more holistic way in which people viewed their health. For example, a chronic-back pain sufferer showed us a large bag she took on business trips that held a yoga mat (so that she could do yoga in her hotel room) and a heavy binder of food measurements to which she could refer when traveling. Bags even followed people around the house, such as a purse with a blood-sugar monitor in it going downstairs after lunch to be handy when its owner reads with a cat on her lap. One woman used pockets for keeping track of her daily pills to ensure they were at hand.

Direction: From Home Monitoring to Supporting Mobility

Although the project started with the idea of looking for opportunities to modify our existing home networking technology to support in-home health monitoring, the fieldwork identified a different unmet need: support for mobility to limit disruption in self-care. This change in research direction from in-home monitoring to mobility support

changed the way we position healthcare research within the organization and guided us to a different group of potential outside collaborators.

We had planned to use participatory design methods to incorporate the end-users' feedback into rapidly changing prototypes; the fieldwork was basically intended to be a matchmaking exercise between the lab's technical capabilities and the needs of people managing health concerns. The findings from our study changed the dynamic of the project. From the fieldwork we gained an understanding of how the participants deliberately structured their environment and routines, practices that are visible in their design of the things they carried with them. Because strategies for limiting disruption were so varied and individual, we began to view the participants–not the technologists–as designers. Like the Portable Effects project (http://www.portablefx.com), our discussion of what people put in their bags and where they took them showed us that our participants were acting as designers. Acknowledging the participants as designers changes the relationship of power between them, the field researchers, and the technologists (Dourish, 2006) and gives them greater agency to accept, modify, or reject technological additions to the kits they use in their healthcare practices.

Even though our interviews took place in the home, discussion of mobility came up in two interconnected ways. It came up naturally as bags (purses, backpacks, etc.) embedded in the home triggered narratives about what people carried and where they went. Additionally, a section of every interview dealt specifically with how people handled disruptions to their routines. Incidents of disruption generally took place outside the home, e.g. at work, a relative's house, or on a trip. These questions were to help identify what parts of people's home routines worked well so that a technological intervention would not disrupt them, and to provide examples of situations where people needed extra support. From participants' responses the home emerged as a base from which people prepared and energized themselves, bolstered by favorite objects, before going out into the world where disruptions threatened their self-care routines.

Self-Care at Home, In the Community, and Anywhere in the World

This study suggests that practitioners interested in developing products and services to support home healthcare and chronic disease management would benefit from incorporating mobility into the scope of their projects and from exploring ways to include non-medical objects in self-care routines. The remainder of this paper describes examples of home-based healthcare practices to share them with practitioners.

Our participants moved across multiple landscapes. Especially striking was the fact that the resources they needed to take care of their health were not only available in specific places, but across a constellation of different locales. People planned for contingencies by designing what they carried with them and by leaving caches of emergency supplies in key places. For example, insulin-dependent diabetics visiting other diabetic family members

talked about their relief at knowing there would be extra insulin in the refrigerator. One diabetic quite casually described having one testing kit on a centrally located dresser, another in his backpack, and a third in his "back-up drawer" in his apartment. Supplies needed to be carried wherever people went, whether traveling on holiday or business to Russia, Mexico, or small towns in the Midwest.

> *Well, what makes it hard for me is that some of the trips are to very small towns where the choices are extremely limited, like there is probably a McDonalds and a Pizza Hut and Wendy's or something. And there is always a grocery store, but there isn't always a refrigerator in your hotel room, so just eating the right foods is sometimes hard.* – 56 year-old woman with chronic back pain.

The following graphic shows some healthcare practices mentioned in the interviews organized by the kind of environment where they take place: home, community, or anywhere in the world. These practices are offered as a few examples of successful strategies employed by people with healthcare concerns, listed here because they suggest practices that could be amplified by technology, as we are beginning to explore.

WORLD	HOME	COMMUNITY
Buying fruit at WalMart. Filling prescriptions at a nationwide drugstore chain.	Stashing sugary snacks many places. Carrying testing meter downstairs after meals. Stockpiling medicine in cabinets.	Knowing insulin is at a relative's house. Identifying nearby workout options before starting a new job.
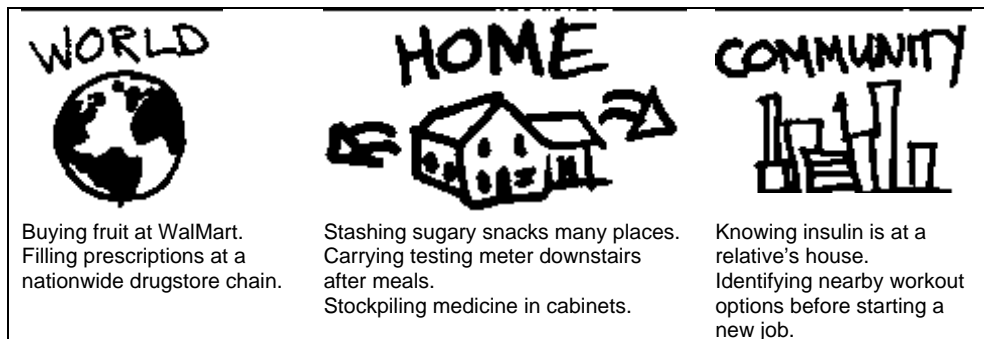
FIGURE 2. Practices supporting self-care in different environments.

People interested in designing healthcare products and services could learn from what our participants carry with them and what they value access to outside the home. People carry items, such as blood monitors, around their homes. They pack gym bags for routine trips to work and bring exercise diagrams on business trips. They also make sure that resources would be available at their destination to avoid any disruptions to their self-care. Our respondents showed creativity and resilience in how they protected themselves from disruptions, in effect designing their environments for healthy living.

Summary

This paper reported on a preliminary field study intended to inform the design of home health monitoring technology. Instead, the findings showed that our participants with

a broad range of health issues had additional concerns about how disease impacted their bodyscapes and how the objects they used in self-care could support their health maintenance routines. As a result of these findings, we shifted our focus to explore the connection between mobility and support for those routines in the face of disruption. Our participants carefully designed the things they carried with them and left at strategic places to help them maintain their health in the face of unforeseen situations.

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Web Resources

Portable Effects: A Survey of Nomadic Design Practice http://www.portablefx.com

World Health Organization: http://www.who.int/dietphysicalactivity

Walking the interface: uncovering practices through 'proxy technology assessment'

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This paper describes the method of "proxy technology assessment", which implies the formalisation of using current technological objects available on the market to generate a richer understanding of future everyday life practices with new media technologies. First, the theoretical framework grounded in theories of social constructivism and domestication is being outlined. Here the concept of "users as innovators" is placed at the centre. Next the concept and the method of proxy technology assessment is presented and elaborated. The results of a recent case study on mobile television on a handheld device are used to illustrate this method. In conclusion we reflect on the possibilities of the integration of the insights gained with this method in the design loop.

Introduction

This paper formalises a method to inform the technology development process with most likely everyday usage of a technology by a certain group of people. These insights are the result of a social research process using similar state-of-the-art technologies. We call this method "proxy technology assessment" (PTA).

Figuring out the potential behaviour of consumers has typically been the main topic of marketing research. Yet then the focus tends to be on activities people engage in

when acquiring products. In our research we focus on the (future) practices of the user: the usages and the "habitualisation" (Rammert, 1999). In this regard we start from the notion of users as innovators. This view on usage has typically been the core of the domestication school in media studies. Therefore we next elaborate on the meaning and added value of a domestication approach in user research, in specific on our area of specialisation: new media technologies. Yet, when media technologies are not yet developed, we need to elicit future practices. Because these practices are situational, we use "proxy technologies", referring to devices and applications that incorporate as much as possible similar functionalities and characteristics as the future media technology. This technique enables us to make future possibilities for the present "user" more palpable and integrate them in the "thick descriptions" that are made of their accounts. We applied this method in our research on mobile television (MADUF - Maximize DVB Usage in Flanders) (see notes). The project has a technological focus as it explores the essential possibilities and constraints for the DVB-H standard (Digital Video Broadcasting on Handheld devices).[1] Finally, these results relevant from a social scientific view, are part of a collaborative project with Belgian partners in industry. For this we discuss their reflections on the method used and result for technological development process.

Users as Innovators

The classical market research, as well as studies on consumerism, approaches the "consumers" as "end users" (e.g. Warde, 1990). The user is seen as a receiver who has to conform to the products' functionalities or otherwise does not adopt the product. At that moment the creative process is considered as ended, and being stabilized by inscription into the product. Therefore the focus is on the acquisition.

But different insights from social constructivism got us to think about the user as an innovator him- or herself (Frissen, 2004; Bergman & Frissen, 1997). Unanticipated use is a recognised problem (Robinson, 1993). Oudshoorn and Pinch (2003: 2) state that *"there is no essential use that can be deduced from the artefact itself"*. Therefore technologies should be studied in their own "context of use" and users and technologies should be seen as co-constructed. Technologies are not only our products, designed by people, but are also: *"(…) an expression of who and what we are that shapes how society can proceed."* (Dant, 1999)

Today different accounts state that technologies, innovations or products only exist in the everyday practices (e.g. Tuomi, 2002; Rammert, 1999; Hand, Shove & Southerton, 2005). Frissen (2004) states that true innovation can be identified in the actual use of a

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[1] DVB-H is a one-way standard for one-to-many information/entertainment, thereby replicating standard television broadcasting. The battery power consumption will be lower than DVB-T (terrestrial) and reception robustness for (in- and outdoor) portable use of devices with built-in antennas will be improved. The technology also enables interactivity via a parallel access to a mobile telecom network (DigiTAG, 2005).

technology. Molotch (2003) also showed that a lot of the change is created in everyday use, for one by the slightly imperfect imitation of practices by others. In the past we have seen numerous examples of creative, innovative and unanticipated uses of ICTs.[2] These innovative or creative usages are not necessarily ground braking. They are often a direct consequence of people's daily usage of ICT and how they manage (with) them.

But also within participatory design or co-design users are seen as active participants in innovation (e.g. Schuler & Namioka, 1993; Sanders, 2002). This active participation of the users in development is not always possible, because of the commissioner or the structure of the project. Taking into account these limits, the PTA method focuses on the innovation in everyday practices. Therefore the user is more passive in the design process itself, but creative in checking out the affordances of the future technology.[3]

As already mentioned some practices are more stabilized within some contexts than others, but also that stabilised routine can change, innovate (e.g. Molotch, 2003). Getting some insights in routines, by breaching these routines is a typical part of the ethnomethodological tradition to get insight into practices (Garfinkel, 1967; Crabtree, 2004). New portable devices enable changes in social practices while moving, but also change in the practices the device enables itself- for example the practice of watching television, keeping contact with friends,.... We suppose that this recombination of "watching television" and "being on the move" leads to more variation into the practices users have in relation to their TV interface. Does reconsidering the theoretical concept of domestication help us to understand these variations? Or does this recombination force us to reconsider the notion of domestication?

Domestication View and Recombinations of Everyday Practices

Within sociology and media studies the domestication approach - originally stems from the cultural studies school (Oudshoorn & Pinch, 2003) - reshifted the focus since the late 1980's from content and genre to reading the media technologies themselves as text. The domestication approach considers the complexity of everyday life and technology's place within its dynamics, rituals, rules, routines and patterns. Domestication is not a one-way stream in the sense that the user adapts technologies in order to fit them into his daily life patterns, but at the same time the user and his surroundings change as well. The domestication perspective is also about how people deal with ICT, which is an articulation of existing practices, conflicts and meanings within the household or user community

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[2] Haddon (2005) refers to examples like the decoration and personalisation of mobile phones by Finnish high school students putting stickers on them, leading to the commercialisation of GSM covers.

[3] Affordances are defined as the combination of 'perceived and actual properties of the thing - primarily those fundamental properties that determine just how that thing could possibly be used.' (Norman, 1988: 95). A term borrowed from Gibson's ecological theory of perception (1977)

(Pierson, 2005). The added value of a domestication view on new media use is linked to the idea that (media) technology can only have a significant bearing on social behaviour when it is fully embedded or "tamed" in the everyday life of people and thereby becoming obvious (Frissen, 2004). Therefore cultural appropriation of technologies is needed. (Oudshoorn & Pinch, 2003: 12). It is the result of the continuous interaction of the inscriptions and affordances within the technology with different users in different social contexts, on a micro level.

For translating the technological viewpoint to everyday user practices, we need to involve the two main practices at stake: watching television and being on the move (in a nomadic sense as well as in a mobile sense).[4] This entails a closer look at the essence of television watching, which is typically a domestic activity with the ideal image of social bonding within the family. Another typical feature is that the broadcasting scheme often provides ontological security by structuring people's lives (Silverstone & Haddon, 1996). When perceiving mobile television as a mobile technology, we can compare this medium with mobile phone experiences. An essential aspect in this regard is the publicness of using a cell phone and the creation of a private sphere within a public sphere, not only with sound but also with video. Both (opposing) practices, embedded in mobile television, need to be reconciled in some way to generate a successful mobile television practice.

Proxy Technology Assessment Embedded in "Thick Description"

Concept of proxy technology assessment (PTA)

The use of "proxy technology" points at the use of existing technologies that resemble as much as possible the functionalities under development. This approach elicits and stimulates the user experience/practices and the rationalisations about them. The term "proxy" stems from the Latin word "procuratia" and refers to terms like 'substitute' as well as to "indirect connection".[5] [6]

Although we support the tradition of social shaping/constructing of technology (cfr Rip, Bijker), we do not use the term "technology assessment" here in a classical way. The latter originally refers to forecasting possible routes the future development of a technology will or can have for different stakeholders. The concept of assessment in PTA refers to the analytic purpose of the method on micro level, to forecast everyday practices with future technologies.

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[4] A distinction is made between nomadic and mobile use. The first kind of use refers to users that connect to the network from arbitrary and changing locations, but do not use the service while moving. Mobile use refers to use of services during movement (Podnar, Hauswirth & Jazayeri, 2002).

[5] http://encarta.msn.com/dictionary_/proxy.html; consulted 20 Jul 2006

[6] http://en.wikipedia.org/wiki/Proxy_server; consulted 28 Feb 2006

In our approach we incorporate the ideas formulated by Shove, Watson and Ingram on practice oriented product design (POPD).[7] An innovation has to start within the practice, not in a singular individual or product. As the practice only reveals itself when stuff is in use, we have to think with which kind of material object the practice will be done, as well as the images one has of the practice and skill needed to have the experience.

We therefore define PTA as a method for emulating everyday life practices with future technologies and applications by confronting selected user groups with existing similar tools and applications, during the concept phase of the technological development process.

PTA characteristics

Adequate proxy technologies have a number of particular affordances. This is illustrated with findings from the MADUF project As proxy technologies we selected 3G phones (with video functionality). In first place because they are telephone-based devices as the future DVB-H devices with the same kind of mobility and proportions. Secondly, television channels are available on this mobile platform.[8] Finally, the user experience in general will not differ significantly using UMTS or DVB-H.

We implemented proxy technologies to generate a "thick description", embedded in a multi-methodological research set-up enabling data triangulation among mobile television users. The following (mainly interpretative) methods were combined: desk research, observation with contextual inquiries, profiling questionnaires, logging, diaries, cultural probes, visual clues (photographs) and in-depth interviews. To analyse these data we applied the domestication approach.

The proxy technologies enabled the test users to experience the idea of watching television while being on the move in their own everyday life practices. In general we find that the expectations on (quality of) experience of mobile television are linked to what people are used to with their traditional television set at home. Based on the MADUF findings, the following affordances of proxy technologies are crucial.

- First of all, proxy technologies should *trigger an enriched feedback* of respondents on the expected future experiences with the new technology. In the MADUF project people used the proxy technologies in different places and talked very vivid about the reasons why these places and the associated practices are suitable for watching television.
- Second the proxy technologies should certainly incorporate those *characteristics that are central for the research question*. These characteristics go beyond the typical technological

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[7] Shove, E, Watson, M & J. Ingram (2006) Designing and consuming. Objects, practices and processes: <http://www.dur.ac.uk/designing.consuming>

[8] Vodafone live platform from the Belgian mobile telecom operator Proximus.

functionalities (like battery life, screen size, storage capacity, etc), but also involve more socially and culturally oriented characteristics (like symbolic value, cultural proximity of available content, etc). Therefore a ***combination of proxy technologies*** is recommended to explore the different possibilities of these characteristics to get more insight in the different aspects of the practices to be. By offering a proxy in the MADUF case without broadcasting functionalities but with a better quality of image, made it possible to talk about appropriate places to use a mobile television. But also the fact that one of the devices (iPod video) triggered some status connotations, was very interesting.

- Third, the ***more characteristics of the technology to be*** are integrated in the proxy technology, the easier it is for the users to experience potential future practices. In this way we were able to move from the interaction with the interface, to the primary affordances in relation to the habits of watching television (e.g. the need of a functionality that makes zapping as a practice possible) and finally the meeting with other practices (e.g. not being too loud in public places and not thinking of watching television with earphones).
- Finally the ***technological construct behind*** the proxy technology ***does not matter***, as long as it facilitates the required (resembling) practice (blackboxing).

The added value of implementing proxy technologies in the development process is foremost situated in the conceptual phase. Within this phase the PTA can be applied in two ways: on the one hand people can be equipped with state-of-the-art technology that on several levels embed the same functionalities of the technology under development, on the other hand proxy technologies can also be used in a more supporting role for other interpretative research methods (e.g. focus group interviews). For the respondent it is not always that easy to reflect on a technology that only exists at a conceptual level. Moreover when only referring to a concept, there is the risk that people are talking with different images of the concept. Here proxy technologies are being used as an illustration tool, opening the door to talk about sense making of using this tool in everyday practice.

However there are also some restrictions in using proxy technologies.

- First proxies are less useful in development stages, like idea generation or piloting. ***If the choice on the basic functionalities is not made yet, other methods are more appropriate*** to think more creative and less restrictive on future possibilities.
- Second the technique is foremost aimed at projection on a medium long term and ***less on a (very) long term***.
- It could be an ***expensive method,*** because one often needs to obtain cutting-edge technologies. If you only can use prototypes the odds are higher, than slightly adapting mass-market products.
- Fourth it is ***not always possible to find the adequate proxy*** technologies that incorporate the right characteristics that are needed in the research or where the range of comparable characteristics is too limited. An alternative approach could be to combine assessing material objects that magnify only very specific future

characteristics. This can help in focusing on the practice in relation to that characteristic.

- Finally it is clear that the outcome is ***an informed guess, but still a guess***. This means that a certain extent of uncertainty always remains on whether or not the findings are transferable to the future practices.

Using technological objects as a stimulus to generate insights on human behaviour in relation to new products is not a new idea. For example taste testing by comparing different drinks or testing the usability of an electrical screwdriver in a lab setting. However these kinds of proxy technologies have been part of more behavioural experimental research streams. Also designers are using these stimuli as creativity tools, while developing new products. The PTA approach in our research differs with the above in a number of ways.

First we take a different approach in comparison to the experimental traditions by embedding the proxy technologies in an interpretative research tradition, triangulating different qualitative methods. We do not want to reconstruct one fixed sequence in the task organization of a practice, we are looking for a multidimensional contextualised accounts (e.g Robinson, 1993). Second, we also differ from design practices by formalising this process of giving humans a reference point to experience and reflect on their practices as a systematic and transparent method. Closely related, is the difference in our goal of using these stimuli. We want to collect data on the use of media technologies as rich as possible. The possible implications for the development of an innovative product are at that moment a secondary aim, unlike designers.

The way we inscribe proxy technology assessment in our research fits in the 'human actors' approach (Crabtree, 2003: 22-33, Bannon, 1991). In contrast to 'human factors', an approach focusing more on issues like usability, functionality, convenience and ease-of-use, the human actors approach looks at aspects like the social context, meaning and everyday life setting. However in contrast to the general idea, we do not exclude characteristics of the user interface in our human actors approach. In our view the interface is the doorway by which people make sense and start reflecting about technological objects. One passes through this 'door' in order to get a practice-led understanding about the psychological and social processes that configure the relation of people with the respective new media technologies. In their practice of use the interface frames the way people interact with objects and applications. However this needs to be complemented with the way these artifacts are being domesticated and given new meanings within the micro and macro social spheres (routines, communities, structural actors involved etc.).

Conclusion

We have indicated our view on design and use of new media technologies, where we see users as innovators. This is based on the domestication perspective on media use. In order to assess future acceptance and use of new media technologies we apply proxy technologies in combination with other research methods.

Added value

We do not pretend in any way to have invented a new method. Our goal was to demonstrate an effective technique for applied ethnographers to elicit a more "thick description" within a multi-methodological research set-up, embedded within an interpretative research tradition (human actors approach). We denominated this technique "proxy technology assessment", which implies the formalisation of using (preferably different) technological objects for better understanding future everyday life practices with and domestication of new media technologies. We applied this technique in our research on the use of mobile television. Our findings have shown on three levels (interface interaction, primary affordance and meeting other practices) how formalising the use of proxy technologies in combination with other research methods help us in better understanding and anticipating the future everyday use of DVB-H mobile television devices and the corresponding viewing practices. We conclude by highlighting the added value of PTA for field researchers.

- PTA is geared towards supporting the conceptual phase in the product development process (especially concept design and concept development), by introducing powerful triggers among (potential) users that generate 'thick' descriptions.
- PTA reduces the unpredictability of user behaviour, by giving an evidence-based indication of innovative user practices of media technologies, before they are developed and marketed.
- PTA enables a human actors approach on features of the human-computer interface that can be linked with the social-psychological setting.
- PTA is an in-between method for generating insights on (future) practices with new media technologies. 'In-between' refers to those situations when 'classic' in-depth interviews are not sufficient and observations are not feasible within a research project.
- PTA enables a better understanding of people that are normally difficult to investigate regarding future use of new media, such as people that currently have little or no media technologies at home (non-users). The analysis can even be enriched when these people are combined with user groups on the other side of the spectrum (early adopters).
- Embedding proxy technology assessment within a multi-methodological approach also enables comparisons between people that have little or no experience with or knowledge about the media technologies to be developed (archetypes) and people that get the chance of using proxy technologies (PTA).

Integration in design loop

In order to effectively integrate the findings of our multi-methodological PTA research in the design of new devices and services, a close interaction with the (technological) actor developing the media technology is required. In our case this refers to conveying our social science findings to an industry perspective, more in particular the Belgian telecom operators Belgacom and Belgacom Mobile Proximus. This was done in three workshop meetings where researcher discussed the research set-up, progress and findings. As to the set-up we came to an agreement that a minimum period of four weeks of user testing was required, in order to enable real user behaviour with the proxy technologies.

The close interaction with industry led to an adaptation of priorities during the course of research. The industry partner shifted the focus on one-way broadcasting of mobile television to a focus more on interactivity. The use of 3G cell phones as proxy technologies also generated an unexpected outcome. These technologies were used to teach us something about the possible use of mobile television via DVB-H. However in the discussions with the industry partner they indicated that our findings would also be fed back to the further development of 3G technology. Especially because our data confirmed a number issues which were on the agenda of the 3G development. The main advantage of this approach with proxy technologies, in contrast to other methods, is that the contextualisation and the interpretation of "watching television", as a practice within the domestication framework, and the use of the proxies in a real life context provides us with very enriched data. This makes it possible to have a better understanding of the needs and requirements of the user at the one hand and the motivation on the other hand. This interdisciplinary and multi-methodological approach seems to be inspiring and useful for technology developers. Within the same company other television projects have indicated that they want to use this method as well. In collaboration with the other partners in the project in the end these results are translated into personas and user scenarios, to be tools - boundary objects - in the choice making process during the development.

Notes

The IBBT-MADUF project ('Maximize DVB Usage in Flanders') is co-funded by the IBBT (Interdisciplinary institute for BroadBand Technology), a research institute founded by the Flemish Government in 2004, and the involved companies and institutions: Siemens, Belgacom, Belgacom Mobile Proximus, Option, Scientific Atlanta Europe, Telenet and VRT. <https://projects.ibbt.be/maduf>

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A Sum Greater than the Parts: Combining Contextual Inquiry with Other Methods to Maximize Research Insights into Social Transitions

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Introduction: Why Combining Contextual Inquiry with Other Methods Maximizes Insights into Social Transitions

Transitioning from "single" to "married" is a rite of passage for male adults worldwide. This transition often takes the recognized form of a marital engagement. The most prominent symbol of such an engagement in the U.S. is a diamond engagement ring, proffered to the woman as a symbol of the future union. Decisions related to selecting, purchasing, and presenting an engagement ring are momentous and personal—often completely foreign to the man prior to deciding to embark on the engagement journey. The path to engagement and marriage is clearly a personal transition, but is also linked to larger community and societal expectations as well as historical norms and traditions.

Companies involved in ring selection and sales, particularly those involved in on-line ring commerce, would benefit greatly from gaining insight into this transition experienced by potential customers. Specifically, what happens when Internet technology is inserted into the process? Can a place be created on the Internet that supports this transition? Using such insights, a company may provide support in the ring selection and purchase process that not only results in a sale but also helps to guide the customer through the process and results in a positive experience—the long-term benefits of which include customer satisfaction, loyalty, repeat business, and referrals to others in the ring selection process.

How is such customer insight most effectively gained when the research topic involves a deeply personal, societally-influenced and life-changing journey? We propose that a combination of traditional market research and applied ethnographic methods—contextual inquiry, observation, customer experience mapping, surveys—is the best approach for such a study. By drawing from the various strengths of each method, a large pool of information can be amassed that, when considered in total, paints a rich and comprehensive picture of the engagement journey.

Case Study Objectives and Approach

In this case study, the client commissioned research to explore opinions and experiences related to on-line and in-store diamond engagement ring shopping and purchasing. The research goal was to gain an understanding of the complex nature of engagement ring purchases, including both emotional and practical aspects. We developed the blended research approach to draw from market research, ethnography and participatory design methods in order to maximize insights gained within a very limited budget and timeline, as well as to gain acceptance among client stakeholders who had various levels of comfort with approaches outside the realm of traditional market research. The research approach that we employed included a series of 12 in-home sessions with men involved in the diamond engagement ring purchase process.

Complementary Methods: Combining Contextual Inquiry with Other Methods to Meet Specific Research Needs and Client Expectations, and to Maximize Insights Gained

The sessions included contextual inquiry along with other methods to meet specific informational needs. As Bjerén states regarding the use of a blended approach of qualitative and quantitative methods, the results are synergic. "Using them together nevertheless brings forth more nuanced and complicated knowledge about the object under study. The methods also reflect on each other and using them together…means that both qualitative and quantitative studies can be improved." (Bjerén 2004:8)

As shown in Figure 1, the methods were drawn from traditional market research as well as ethnography and participatory design practices.

Method:	Self-administered pre-visit survey	Contextual inquiry/in-home interviews	Observation of participants	Experience mapping	Researcher-administered survey
Drawn from:	Traditional market research	Applied ethnography	Applied ethnography	Participatory design	Traditional market research
Reason(s) for use in case study:	Introduce questions of a personal nature in a non-threatening format	Foster in-depth discussion of experiences and resulting emotions in the participant's environment	Learn about the participant's on-line research, shopping and ring selection experiences via observation	Obtain maps showing emotional high and low points throughout each participant's journey	Capture comparable importance ratings for on-line features

Figure 1: Methods Employed

Self-administered pre-visit survey*:* The intention of the self-administered pre-visit surveys was to "prime the pump" for the subsequent in-home sessions by encouraging participants to think about and describe the ring selection and purchase process, including steps they went through, how it made them feel, and where they currently are in the process. Gage and Kolari see the need for an introductory step in the research process before conducting applied ethnography or participatory design techniques. "The first step is to get research participants immersed in and aware of their daily experiences surrounding the area of focus. This brings latent daily experiences into their conscious memory…. After becoming aware of her experiences relative to a given subject, a person is ready to express associated emotions." (Gage and Kolari 2002:4) Stappers, Sleeswijk Visser, and Keller agree that a pre-session exercise can be useful as a precursor to ethnographic and participatory sessions. "In the sensitizing phase, participants make 'homework' exercises…these exercises provide information to the researchers and designers, but also serve to draw the participant's attention to the topic of the study: participants will then observe and reflect more about what they do in their personal life or during their work." (Stappers, Sleeswijk Visser, and Keller 2003:2)

In this case study, the initial information was captured via a self-directed survey exercise, as early in the research process a self-administered survey may be received by participants as a safe, easy format in which to share such personal information. As Tourangeau and Smith have shown, self-administration of sensitive or highly personal survey questions results in a higher willingness to respond and to respond truthfully than interviewer-administered questions. "Self-administration can have marked effects on the responses obtained; by reducing fears of embarrassment or of disclosure to other household members, self-administration appears to increase respondent candor." (Tourangeau and Smith 1996:277–282)

Here, the pre-visit survey was successful in having participants provide high-level information on the engagement decisions and steps they had taken, thus preparing participants for more lengthy and personal discussions of these topics with researchers during the subsequent sessions. Participants were willing to share strong feelings about the ring shopping process, particularly negative ones including: fear of selecting the wrong ring and disappointing the intended fiancée; distrust of sales people and disdain for the pressure they put on shoppers; feeling mislead or "cheated" by on-line merchandise that didn't live up to promises; abhorrence for the diamond industry and its dubious practices; and feeling very overwhelmed with the entire ring shopping process. The revelation of these strong feelings gave the interviewers material to explore further during the subsequent visits.

Applied ethnography—contextual inquiry and observation: The use of applied ethnography in this study allowed for in-depth exploration of this shopping community while continuing to meet the client's budget and timeline requirements. Applied ethnography has advantages in high-tech and other industry research as it is quicker, less expensive and can be less intrusive to participants than traditional ethnography which might take several

months to years to complete (Sanders 2002:1–2). As Sanders describes, applied ethnography "draws simultaneously from a number of research methods. It listens to what people say, while at the same time watching what people do and what they use. Applied ethnography is the best way to discover the difference between what people say they do and what they really do in their daily lives." (Sanders 2002:2)

Contextual inquiry via in-home interviews: These interviews focused on the entire engagement journey that had occurred. Interviewers engaged the participants in discussions about their expectations, experiences, successes and setbacks, and emotions resulting from these experiences. We conducted the interviews in the participants' home environments, where the on-line-related research and shopping experiences had actually taken place and thus feelings about these experiences could be conjured up more readily. Participants discussed the decision to become engaged and purchase a ring, initial research and shopping, ring selection and purchase (for those who had journeyed this far), and ring presentation to the intended fiancée.

Observation of participants*:* During the contextual interviews, participants were observed as they navigated through various on-line ring sites. The intention of this exercise was to have participants relive browsing, shopping, and ring selection experiences. This technique allowed participants to show researchers what they did, and also allowed them easy access to the feelings that accompanied the original behaviors. Interviewers acted as apprentices, and participants were the experts—teaching interviewers about the processes they went through and the accompanying feelings. Note that the focus of this study was on on-line shopping experiences, with a secondary focus on understanding the relationship to in-store shopping. Had the focus been on in-store shopping, actual in-store observation would have been merited.

Utilizing inquiry and participant observation, we were able to delve deeply into each participant's emotional journey through the engagement process. Participants shared their feelings surrounding the decision to become engaged—a heady mix of excitement and anticipation around the ring presentation itself, confusion surrounding how to go about information gathering and shopping for rings, and an overwhelming fear of getting something wrong with the ring selection or the ring presentation.

It became clear how important a role the ring shopping resources play in the process, and how a ring merchant—whether traditional brick-and-mortar or online—may provide services and tools to assist customers through this emotional whirlwind.

Experience mapping*:* Taking a page from the participatory design practice, we asked participants to create time-sequence maps of their individual diamond ring journeys showing all the steps they had gone through and the relative positivity or negativity of each step. Participants were encouraged to include the engagement decision, ring research, ring shopping, ring selection, and ring presentation in their maps as well as any other experiences

that figured prominently in their journey. Participants then discussed the maps with interviewers so that each step and the accompanying emotions were shared. Gage and Kolari state that participatory design techniques such as experience mapping allow people to express what they want in a product or experience—something that may not be expressed readily through interviews or surveys. "Participatory design assumes that users should play an active role in the creative process: users envision the future by identifying the defining moments from their perspective. These moments can highlight critical touch points and the desired feelings associated with them, which serve as a foundation for emotional connections." (Gage and Kolari 2002:2)

During a participatory design exercise such as experience mapping or collage creation, discussion of the map or collage is even more important than creation of the artifact itself, as the meaning behind the artifact is discussed and shared with the research team. "The main emphasis is on the discussion after the collages are completed, not the collages themselves, which remain quite ambiguous…the sessions are very intensive and stimulating, and bring forward a list of considerations, anecdotes, opinions, observations, examples, motivations, practicalities." (Stappers, Sleeswijk Visser, and Keller 2003:5) In this study, each participant became engaged in creating a map that depicted his journey, and even more engaged in sharing the story of the journey with researchers. Some participants actually seemed to find the process cathartic—they were able to share the low points of their journey with sympathetic listeners, with the knowledge that our clients would hear the stories and might someday be able to make things better for future shoppers. Creation of such a map allowed participants to really think through their engagement-related experiences from start to finish and brought to light accompanying emotional low points and high points that may not have been accessible given a more straightforward interview approach, including an extreme aversion to sales pressure from in-store sales people, and bewilderment at the online ring research and shopping resources.

During analysis for this study, composite maps were created for on-line and in-store shoppers to compare experiences and identify pain points and areas of opportunity for the client. These resulting composite maps clearly brought to life the unique experiences of the different communities and highlighted areas of differentiation where the client may focus attention if trying to support one community or the other.

Researcher-administered survey: At the end of each in-home session, interviewers administered a brief survey including scaled questions rating the importance of various on-line shopping tools and site features. Drawing from traditional market research, this approach allowed relative importance ratings for these features to be captured in a consistent fashion so that results could be compared across participants. Such analysis would not have been possible through contextual interviews, given the more fluid format and information gained. Though not the focus of the research, this component provided consistency in feedback related to the various on-line shopping features—an expressed desire from some of the client stakeholders who typically rely on traditional market research and wished to map results to established research metrics.

Results: Learnings and Insights Gained

The information gained from the variety of research methods employed did in fact paint a very rich, comprehensive picture of the journey toward engagement. The research resulted in great depth and breadth of information about the various steps of ring purchase—the research conducted and knowledge gained on diamond rings, the stores and sites visited, the rings purchased—as well as a view of the journey's emotional impacts.

As we learned during this case study, the shopping process for a diamond engagement ring is often viewed as an emotional or "sentimental" journey, and one that results in a story that becomes part of the couple's history. Even before the story exists, couples anticipate that it will be part of their shared history as presented to others, much as a couple may expect a few funny anecdotes from their first meeting and their wedding ceremony to become part of the personal history they pass along. Thus there's a need for the story of the engagement ring shopping process to be a good story, something that's worthy of sharing with friends, relatives, and even future children. This need for creation of a unique shared history is strong but often unspoken—it isn't openly recognized. And this need for sentimentality can greatly affect where someone will research and shop for the diamond ring; that is, the location and experience should ideally pass muster with the friends, relatives and children who will be sharing in the engagement story.

If the intended fiancée is involved in ring shopping, this may have some bearing on which shopping method is ultimately used: on-line or in-store. A woman's strong desire for a good engagement story—one that her family and friends will be delighted by, not disappointed in—may drive the man to purchase in-store to attain the more personal experience. Alternatively, a woman who places value on individuality or exclusivity may find appeal in a unique or customized ring. An intended fiancée with such values may be more open to ring purchase on-line. Even if the woman doesn't know about the ring shopping in advance, the male shopper often has a good idea of what she may or may not be comfortable with in terms of her engagement story, and he will shop accordingly.

In addition to insight on diamond ring shopping as a sentimental journey, we explored the unique needs of in-store and on-line diamond ring shoppers. As the research showed, these communities are two different breeds altogether in terms of their approach to and expectations around ring shopping.

- Those who prefer to shop and buy in-store have strong desires for an in-person experience, interacting face to face with a salesperson or diamond expert and interacting directly with the rings. These shoppers want to have conversations with experts to build trust and rapport. They want to feel good about whom and where they're buying from. These shoppers also want to touch and feel the rings, to see the diamonds sparkle in the light, all to get a better mental picture of what the rings will look like when worn by the soon-to-be fiancée. The journey here focuses on

having a more "personal" experience. The lack of personalized service and ability to see and touch the merchandise make on-line shopping a less desirable or even unacceptable path for these shoppers.

- On-line shoppers are drawn to the lower pressure of self-guided research and shopping (as compared to envisioned high-pressure sales in a store setting), along with the assumed larger variety of diamonds and settings available. These shoppers tend to dislike in-person interaction with salespeople, viewing it as overbearing and high-pressure. The journey here focuses on control—selecting the right ring at the right price via self-directed shopping, with the shoppers controlling their entire journey.

Knowing the unique preferences and aversions of each community, a company involved in ring selection and sales may develop a store presence and supporting ring shopping materials and services that cater to one community or the other.

Implications

This case study highlights ways in which unique benefits can be gained from traditional market research and ethnographic methods, leading to insights such as those detailed here. The market research components of this study provided both a way to introduce a sensitive research topic to participants in a non-threatening manner, and a way to capture information in a consistent, comparable fashion for high-level analysis. The ethnographic and participatory design components of this study provided rich information on the participants—delving into their hopes, fears, successes, failures, aspirations and many other emotionally-charged topics.

Additionally, the blended approach was effective in introducing ethnographic methods to some client stakeholders more familiar and comfortable with traditional market research methods. While a pure ethnographic approach for this research may have been rejected due to a lack of comfort from all stakeholders, this blended approach was embraced readily. As the project was ultimately deemed successful in terms of insights gained, this may well open the doors to future opportunities for ethnographic research among these client stakeholders, including the possibility of pure ethnographic approaches when they are merited.

For a project focused on a deeply personal, societally-influenced and life-changing journey such as diamond engagement ring shopping, we feel that a blended research approach that draws from both traditional and ethnographic techniques will prove highly successful. From the client perspective, the insights derived from such a blended project allowed greater understanding into this life journey and highlighted ways in which the client might best support the various steps in that journey for current and potential customers. Any company involved in new product development, purchase channel or service development could benefit from such an approach if the product or service in question

engages the emotions in a similar way. We look forward to the successful employment of such blended approaches in the future as we continue to support clients in researching the ever-growing technology sector.

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Sunday is Family Day

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This paper explores the transitions between "my-time" and "your-time," between different social roles, and between different technological contexts. We used shadowing, voice-mail diaries and semi-structured group interviews to investigate the limits of seamless mobility. We identified an interesting behavior we call a "peek": a quick look ahead in order to prepare for transitions. We also found that people are able to able to infer a lot from very little contextual information, and we argue that technologies designed for the above transitions therefore should rely on a few, well-chosen pieces of presence/awareness data, rather than exhaustive information. As a guide to invention and design, this study underlines the need to recognize our users' intelligence. Instead of making applications that anticipate what users wants to do, we suggest providing information that is relevant and clear enough that users can take a glance at it and decide for themselves how to proceed.

Introduction

In a world with nearly constant access, many businesses are increasingly interested in eliminating the remaining technological boundaries, providing what Motorola calls "Seamless Mobility," what Cisco calls the "Connected Life," and what Katz and Aakhus call "Perpetual Contact." But between "my-time" and "your-time," between different social roles, and between different technological contexts, there are transitions. For people surrounded by technology, transitions are often created by the shift in attention and activity imposed by an in-coming call, e-mail, IM, etc. Technological boundaries to these incoming communications are being eliminated, but people are creating boundary mechanisms to manage the shifts (from screening calls to turning off the technology). This paper describes research conducted to explore the implications of boundaries for constant, or always-on, connectivity.

As part of Motorola Labs, we study and develop new communication technologies, focusing on enhanced and on ambient communication. For us, always-on connectivity raises important questions for our designs. Literature in sociology, psychology and anthropology introduce theories about the roles of technologies in structuring interactions, changing etiquette, and mediating the apprehension of space and time. But there is little that addresses

the mundane circumstances of anytime, anywhere connectivity, and how transitions are organized by the active creation, manipulation, and elimination of boundaries.

Methods

To gather data on these questions, we shadowed four participants (all of them married, working adults) for a day. We followed them from the morning prior to leaving for work, throughout the workday, and back to their homes, not leaving until after dinner. We asked questions about the transitions we observed and interviewed them at the end of the day. The same participants were re-recruited to leave voice-mail diaries about their communications and interruptions, for five additional days. Finally, we conducted three semi-structured group interviews with a total of 18 participants. In the interviews we gave examples of transitions and boundaries we had observed in the first four participants' lives, and asked people in the groups to recall and describe their own behaviors under similar circumstances.

We used a team-based form of grounded theory analysis, and together we extracted observations and behavioral descriptions from the data, identified patterns in the items, and named and described those patterns. As a team we examined the data (field notes, photos, and recordings) and identified the items for analysis. We were guided in this process by LeCompte and Schensul, focusing on "events, behaviors, statements, or activities that stand out because they occur often, because they are crucial to other items, because they are rare and influential, or because they are totally absent despite the researchers' expectations," (p.150). We then began to put these items together into groups or categories, a dialectical process of "comparison, contrast, and integration" (ibid. p. 155) during which the patterns we discuss here emerged. To efficiently organize these patterns as a team, we used an affinity-like post-it chart (see Beyer and Holtzblatt pp. 154-163). Here we followed Bernard: As the categories emerged we would "pull all the data (that is, exemplars) from those categories together and compare them, considering not only what [items belong] in each emerging category but also how the categories are linked together," (p. 608).

Because this was a very small-scale, qualitative study, there are a number of caveats that should be kept in mind when reading the analysis. While we had the opportunity to observe participants in professional occupations, the very fact that they were able to let someone shadow them during the day means they have flexible jobs that admit more permeable boundaries. Furthermore, although the methodologies used were good for exploratory and preliminary research, the creation and maintenance of boundaries in everyday life is a ripe area for ethnomethodological approaches such as lengthy mounted-camera video-taping and conversational analysis. Many of the places where transitions and boundaries may play a role are however difficult to gather data in: salons, bars, stores, and at the houses of family members, for example. These are the places that would require more innovative data collection procedures, or a much more extended time of observation. For

these reasons, we want to remind the reader that the findings reported here are suggestive, not conclusive.

Findings

In broad strokes, the daily lives of our primary participants, Emily, Lenny, Linda, and Matthew (names have been changed) all conform to the same basic pattern. They all start the day with a breakfast. They go to work, where their jobs require them to work with computers, check email, and make and receive phone calls. Nearly all of them also have personal or family matters that they take care of while at work. After work they all watch a bit of TV in the evening before going to bed.

Although this may sound mundane, these are the structures within which our participants live their individual lives. As we observed their day-to-day activities, we also noted the significant differences, and witnessed particular and interesting events that make them more than interchangeable data points.

FIGURE 1 Our participants at work.

Emily's Story

Emily is the curator of a historical museum in the Chicago suburbs. Since the fundraiser for the museum left, Emily has taken on those responsibilities as well, and she must juggle the work of two jobs in the three days a week she works at the museum. She is in her late thirties, with two children at home, a boy and a girl.

Emily is scheduled to work today, and when the first author arrives in the morning she is waiting for the babysitter. Her husband has already left, and she is feeding her children. When the babysitter arrives, Emily gets ready to leave, letting the babysitter know that she will be available for calls or even if they want to come see her at the museum.

The drive to work takes her less than 5 minutes. Once in her office, Emily immediately starts going through her e-mail. She goes directly to her work inbox, where she has a number of unread e-mails, both personal and professional. Emily performs a first pass, opening each of the e-mails, deleting some and closing the others without replying. She explains she is assessing "what I have to do today." She is looking for urgent e-mails that need to be addressed right away, e-mails that can be handled quickly, and e-mails that will take time or effort to respond to. She will reply to the "easy" ones first, saving the ones that are more work for later.

After getting an overview of her e-mail, Emily goes back and opens a couple of e-mails that she replies to quickly. Second are the e-mails about her child's baseball team; she is organizing a picnic and must create a list of who has confirmed attendance and what they will be bringing. This takes quite a bit of time, but she finishes the list and sends out an e-mail to all the parents of the team.

Emily goes on to address e-mails about an art show she judged, interspersing writing replies with phone calls to fellow judges. In between e-mails and calls, she remembers she needs to send thank-you notes to museum donors and retrieves a file with donation information from a nearby filing cabinet. Emily writes a number of thank-you notes, one of which is to a friend and includes a personal reference to a previous outing as well as the formal thank-you.

Work associated with responding to e-mails and writing thank-you notes takes most of Emily's day, but many other things are going on as well. Sometimes Emily is taking calls about donations, sometimes she is interrupted by deliveries, and other times she is interrupted by volunteers who are coming in to work and need the keys that Emily keeps in her desk. Phone calls are usually screened by her employee, who answers the phone and lets Emily know who is calling and why. On this day the museum is closed, but there is still quite a bit of activity. By the end of the day, Emily still has unreturned calls and unresolved issues.

The doorbell rings several times. (The museum is housed in a historical home.) Each time, Emily anticipates who is at the door and buzzes them in without getting up and going downstairs. In one telling example, she hears the doorbell and says "This must be [our contractor], he's supposed to meet with [my colleague] today." She then buzzes him in, and a few seconds later he passes her office and calls in a "hello." At noon she has lunch with her colleagues.

Near the end of the day, Emily calls her husband to find out if he can pick up the kids and take them to a family photo shoot. Her husband calls her back and they arrange to swap cars. When he is almost there she goes down to the parking lot to make sure he can jump in her car without delay.

At the end of the day, Emily drives home from work. Now in her husband's car, she re-tunes his radio from sports to classical and leaves it there "to get his goat." Her husband gets home a few minutes after she does with their children, and Emily reminds him to call his mom to wish her happy birthday. The children also talk to their grandmother, and Emily nags her son to sing "Happy Birthday" to his grandmother in Hebrew. After the call they decide to order out for dinner. They eat at the dining room table, and Emily explains they never have the TV on during dinner. After dinner Emily and her husband will get their children ready for bed, then watch a little news and get ready to start another day.

Lenny's Story

Lenny is a self-employed entrepreneur in his fifties. He and his wife, Susan, run multiple businesses together, but he spends most of his time on his mortgage company.

In the morning, Lenny works from home, notarizing documents from his clients. He chats with his wife about the morning news and entertainment shows, drinking coffee until he has to leave.

He heads to one of his clients' house for an appointment. On his way there, his daughter calls him, asking for money. She is out of work, so every few days he helps her out with cash. If she had called a few minutes later, he wouldn't have answered, because he doesn't take personal calls while he is with clients. This client talked to one of his colleagues yesterday, and he heard from her that it didn't go well. The client is having second thoughts about the terms of the loan. While Lenny is going through the papers with the client, his colleague calls; she wants to hear how it has gone. He addresses her by a different name, so the client won't realize whom he's talking to. The client signs the loan.

On his way out, Lenny's cell phone chirps—his wife is wondering where he is. Using the phone's walkie-talkie feature, he calls her back: "Yeah, Seven of Nine?" He uses his pet name for her, after the *Star Trek* character who is also "efficient, smart, and sexy." He lets her know that he'll soon be at the office, which helps her plan the schedule. He also tells her about his daughter asking him for money. He asks his wife to get some from the ATM. Later on, Lenny's daughter drops by, picks up the money, and takes off.

For most of the afternoon, Lenny and Susan talk on the phone, receive faxes and access databases on the computer. This is a busy day for them. When there is less work, they often go out to garage sales. It's a hobby and a way to save money.

While waiting for a fax to come in, Lenny goes to take some merchandise out of his van for one of his other businesses. Coming back, he talks to his wife about a block party happening this weekend. His sisters are in town, and they need a ride for the event. While Lenny is usually available to work on weekends, there are some events he is not willing to miss for his job. This party, an annual tradition, is one of them. Finally the fax comes through, and Lenny rushes off to make his next appointment.

When Lenny goes out on distant appointments like this, he sometimes takes the opportunity to visit friends in the area. These tend to be old friends that he doesn't get to see much because his wife doesn't much care for them. He usually doesn't tell her about it, and if she calls him he will fib about where he is. This time, however, Lenny is going straight to his appointment and straight back, and when she calls to check that they're still on schedule he has no reason to lie. The frequent contact with Susan is comforting to him, and even though the call is for a business purpose, it has a personal tone.

By the time he is done, it is already time to hurry to his next, and final, appointment for the evening. No time for dinner! His wife has prepared the papers while he was out, and he picks her up on the way. They do the final client visit together, picking up some food on the way. Although it has been a long day, it was not out of the ordinary. The rest of the week will probably be more of the same. As he puts it: "Our life is our work. And when we're not doing that, we're doing garage sales."

Linda's Story

Linda is a married woman in her forties with no children. She works as a real estate agent, and also is a jewelry designer with her own studio and web-based business. Linda depends greatly on her husband, a lawyer, and incorporates his help in both her real estate work as well as her efforts in jewelry design and sales. Indeed, she told the authors about requesting her husband's help over the weekend: "I had to go find this place for one of the friends of the developer, […] I had my husband drive so I could look."

In the morning on this weekday, Linda is reading her e-mail at home alone. Her husband is gone, but her kitty is there. First thing in the morning she gets a phone call from her mother's doctor and must sort out an insurance matter. Linda eats breakfast while reading e-mail and surfing the web. She spends approximately 3 hours pulling down home listings that she wants to look at with her clients. On days when she has an open house her schedule is much more hectic, but today her phone does not ring even once.

Linda puts together a bundle of papers, including the listings she just printed, and is now ready to leave. Linda drives directly to her real estate office, which is approximately 45 minutes from her home.

The office is empty except for Linda, which is typical because her colleagues are out in the field. She checks voice mail, but has none. Linda then puts a CD in her CD player and starts to make copies of some paperwork for a friend of hers. This person is a former client and friend, but the paperwork is not related to their work together. Linda is doing him a favor since he has introduced her to new clients. "One hand washes the other," she says.

Linda's boss arrives while she is making the copies. When her boss leaves, she finishes her task and checks her voice mail again. There are still no messages, and with little

to do in the real estate office, and no appointments today, she decides to go to her studio and make some jewelry.

The studio is a long way from the realty office, and a quick lunch is in order. Back on the road, Linda looks for "For Sale" signs and takes notes in a small notebook, indicating the address, real estate company and, if she can, the phone number of the client. She will try to call them directly to find out if they want to switch realtors.

Once in her studio she checks her jewelry business e-mail account, only to find she has no orders. She then attempts to take pictures of her latest creation. She wants to use these photos on her website, to sell the jewelry, so she spends over an hour trying to get the "right" shot. Unable to take a picture she is satisfied with, she decides she will get her husband to come to the studio and take the photos for her, and she puts the camera equipment away.

Linda then takes out her jewelry-making equipment, puts on a CD, and spends the next two hours making earrings. Around 6 o'clock, Linda is ready to return home, so she cleans up her studio, checks her e-mail again, and leaves. Waiting for her is her kitty cat, who wants to be fed, and not long after her arrival her husband gets home. They leave to go to a restaurant for dinner, which is their regular habit, and they plan to "watch a little TV" after they get back from dinner.

Linda finds out later in the week, and informs us via the voice-mail, that both her phone number on her real-estate site as well as her e-mail address on her jewelry website were wrong. Little wonder she was so rarely interrupted with other things to do.

Matthew's Story

Matthew is in his thirties, with a wife and a nine month old son. He works downtown as the sales manager for a series of reference books. His is mainly an office job, though he sometimes has to travel.

After Matthew has showered and dressed, he checks his cell phone for messages. There aren't any this morning. He eats a quick breakfast, and then takes the car to work. He parks the car in an underground garage and walks a couple of blocks to the building where his company is located. On his way up, he says hello to a couple of co-workers.

Booting his laptop computer, Matthew launches the email application and his Internet browser, pointing it towards the webcast of a sports radio station. He listens to his voice mail messages. Then it is time to check his email. Most of his communication is done by email, so this is a major part of his work-day. He has a couple of dozen messages in his inbox. A few of those are personal messages or mass mailings, which he deletes. The rest are work-related. He looks quickly at each message to see which ones are urgent, then goes back and replies to those.

For most of the morning he is dealing with his email, mostly writing replies, sometimes looking up information that is being requested. After a couple of hours he goes down to the street for a smoke. He doesn't bring his phone, so he is completely out of touch for these few minutes. That's OK, though; his job involves few things so urgent they can't wait for a couple of minutes. The most serious thing would be if there was an emergency with his son, but in that case the babysitter would call his wife, anyway.

During lunch hour, he browses the web for sport scores and other matters of personal interest. He keeps activities like this to his lunch break (except for the web radio that plays in the background throughout the day) in order to focus on his work. Two people in his department were fired for spending too much time chatting with Instant Messaging applications on the job.

In the afternoon, Matthew makes a call to a former colleague, in order to get his computer transferred to a new hire who is starting next week. Since they are also friends, they talk for a bit about fishing, and about laying some bets on an upcoming game. In order to resolve the computer issue, Matthew needs to talk to the tech department, but he can't get through on the phone. He sends the receptionist an email instead, because he knows that she will read it while she's still talking on the phone, and therefore respond to him sooner.

An incoming email catches his attention. He reads it over a couple of times and chuckles. Then he picks up the phone and calls one of his colleagues, who was also cc'ed on the message. When she answers, she is already laughing: "Can you believe this guy?" is the first thing she says. Because she knew that it was Matthew calling, and because of the shared context of the email they both just received, she could tell in advance what the call is about.

Just as Matthew is walking out of his office to go home, the phone rings. He pauses, but doesn't pick up, waiting for it to go to voice mail. He then listens to the message. Although he wanted to "see if there's an emergency," he didn't want to take the risk of getting involved in a lengthy conversation at the end of the day.

When he gets home, it's a bit early for dinner, so he does some work in the garden. His wife comes home about half an hour after him, having picked up their son at the daycare. Sometimes, when they can get a babysitter, the two of them go out for dinner. That's one of the few times he won't take calls, although he brings his cell with him in case of emergency.

In the evening he watches a bit of television. There's no baseball game on that interests him tonight, so he flips between a couple of different shows. He checks his voicemail and email for messages before going to bed, but there is nothing so urgent it can't wait until tomorrow.

Discussion

In the stories of our participants' everyday, we find many examples of transitions: In location, roles, attention, activity, and so on. Most interesting to us were the transitions that involved technological boundaries (e.g. faxes can only be received at the office), or attempts to establish personal boundaries (e.g. not having a private phone call in the presence of business contacts) by controlling technology. The purposes for and circumstances around people's everyday transitions resist simple classification. The rules are dynamic and flexible, rather than absolute, and they require frequent negotiation. People are adeptly making use of both the possibilities and the limitations of technology as it suits their needs.

Anticipating transitions

One of the interesting behaviors we identified is something we call a "peek." A peek is a quick look beyond the boundary into "what is coming my way." For example, when Matthew checked his e-mail before going to bed, even though he was not going to deal with most of it until the next day, he was peeking ahead. This demonstrates the main purpose of peeking: He peeked at his e-mail in order to figure out which incoming communications had to be addressed immediately and which could wait. In this way, peeks help people control the transitions in their daily lives.

Both Matthew and Emily started their work-day by opening and scanning each of their e-mails, then went back to those messages later in order to respond. A person from the group interviews explained that she liked Outlook's "New Mail" pop-up for this same reason: It provides a peek at what she will need to deal with later.

In her voice mail diary, Emily told us a story that a number of people in our group interviews identified with. She was reading to her son when her friend called. She did not want to stop reading in order to talk, but she took the call, allowing her a peek at who was calling and why, and when she was finished reading to her son she called her friend back. In the interviews, people described having similar experiences. They explained that in many cases this peek allows them to judge whether or not the incoming communication is urgent, like when Matthew paused on his way out of the office to make sure the incoming phone call was not about an emergency. Usually, "urgent" means a family emergency.

In all of the cases just described, peeks not only allowed communications from others permeate boundaries, but also enabled boundary maintenance. Our participants used their peeks to determine whether or not it was the right time or right place to deal with incoming communications, and this gave them the opportunity to put off some of them until a better time. The circumstances of a right time or right place varied considerably not only between participants but for each participant as well, and peeks were part of how participants determined, in each case, whether or not there *was* a better time and place.

Despite finding examples of peeking in the literature (e.g. using the answering machine to screen calls), we have not seen it called out as a class of behaviors in its own right. The notion of peeking, when promoted to a conceptual category, allows us to notice the similarities between behaviors that might previously have been considered unrelated. Researchers in the field can explain these activities with one convenient concept; and with further investigations of peeking, theorists may develop a richer description. Also, having identified this behavior allows us to target it explicitly in our design. Finally, it helps us predict the acceptance of technologies we create by making it apparent when our designs meet people's peeking predispositions.

Controlling transitions

In general, our participants transitioned readily and frequently between work and personal activities. Emily organized a family photo shoot from work, Lenny notarized documents over breakfast, and Matthew checked his email before going to bed and checked sport scores from his office. Linda regularly asks her husband to help her with her various work activities. In some cases, it became impossible to distinguish between the two roles. Calls between Lenny and his wife serve both to schedule their work, and as a way for them to keep in touch during the day (as demonstrated by his use of a pet name for her). When Emily sends a thank-you note to a donor who is also a close friend, she writes a short note saying how nice it was to go to the race track with him the previous week.

We also saw cases where people tried to maintain boundaries between work and home. Matthew did so in both directions, deferring personal activities to after work or to a lunch break. And while he might take a work call at home, he usually would not deal with the matter until the next time he was at the office. Said one of the participants in our group interviews: "I tell my clients: 'If I'm awake, my phone's on.' But people started calling at 7:30, 8 in the morning […] and they were waking me up. So I've actually made a point to turn it off at night and not turn it on until 10 the next morning. […] I don't think there's anything that can't wait until 10 o'clock in the morning."

There seems to be a few very specific situations that people protect from work. Although Lenny makes a point of always being available for his clients, he made a special exception for the annual block party, which it has become his tradition to attend. For Emily it is spending quality time with her children, reading to them or doing other things together. In the group interviews people brought up situations with the whole family together. Like one participant put it: "Sunday is Family Day."

We began the study with the assumption that we would find simple and discrete boundaries, for instance between work and home life, which would be important to respect if people were to accept Seamless Mobility. We had anticipated creating prototypes of communication applications that established and maintained boundaries; technological insulation from undesirable transitions. What we found, however, was people controlling their transitions in ways that were appropriate for them: they did not need a technological

solution. We now believe it is crucial, especially in presence and awareness applications, to design in a way that allows people to control their own transitions, instead of providing that control for them.

Negotiating transitions

We have already discussed some of the methods by which people control the transitions in their everyday lives, such as peeking, but this description may have left the impression that it is something that happens in simple, predictable ways. However, in reality the unique features of each situation are crucial to determine how people deal with it.

When Matthew decided to send a receptionist an email instead of trying to get through on the phone, he made a common transition from voice to text, and from synchronous to asynchronous communication. The reasoning behind this apparently routine decision is quite complex. It was an urgent matter, which couldn't wait. He expected the line to stay busy for some time, but knew that the receptionist would see his email even while she was talking on the phone (thus exploiting the fact that phone and email is not integrated into a single task queue). Therefore, she would get back to him as soon as possible. In another case when he couldn't reach a potential client, on the other hand, he did not switch from phone to email, because that communication required a more personal touch.

For an even more notable example, one of the people in our group interviews told us that when he went to the beach on a Sunday, he felt no need to bring his cell phone. The only people who would call him on a weekend were his friends, who were also going to be at the beach! His friends' plans for the weekend would not normally be relevant for predicting whether he would get calls or not, but in this particular case they were.

Another man told us in one of the group interviews that he does not always answer calls from his wife when he is at home , but always does when he is traveling because then they must be important. His behavior depends not just on his current location and activity, but on what his wife knows and how she thinks. It is because she *knows* that he is traveling that her calls are more likely to be important than when she knows that he is home.

Context is an important factor that influences how people handle transitions. However, the relevant context can not be described in simple terms like location and the status of the immediate environment. Dourish (2004) proposes a view of context which "is particular to each occasion of an activity or action. Context is an occasioned property, relevant to particular settings, particular instances of action and particular parties to that action." We have observed, within our own company, that many designs for perpetual contact tend to encompass every possible bit of information about others in the users' contact lists. We argue that it is not necessary to provide people with comprehensive contextual information, for someone who already knows a good bit about other people in their social group is able to infer a lot from very little information.

Conclusion

Seamless mobility does not mean that there will be no limits on or control over the transitions in everyday life. People create and negotiate rules for when they transition from one context to another. Also, boundaries are often manipulated and permeated in the process of maintaining them.

In some of the novel communication forms we are creating, we are including systems to let users peek ahead by such means as invitations and enhanced presence information. For example, our lab created a presence/awareness prototype that allows people to see when their friends and family are "on their way," allowing them a "peek" at what is to come so they can prepare by finishing up their current work or heading out to meet them.

Also, we know that there are boundaries people cherish, because they mean a man can have a beer with his buddies without the wife finding out, or a daughter can make "Happy Birthday" a little more special by having her son sing it to his grandmother in Hebrew. However, since people's desires for boundaries often differ, the boundaries need to be socially negotiated. In order to ease the face-work of these negotiations and gloss over conflicting interests, a degree of ambiguity and plausible deniability is useful (Aoki and Woodruff 2005). Many applications today aim to tell others the whole story: exact location, unambiguous presence, even mood. As many of our colleagues try to create sensors to detect such information, and technology to automatically make sense of it and distribute it, we wonder about the rewards of this approach. In contrast, our recent prototypes make use of concepts such as plausible deniability, tactical ambiguity and deliberate agnosticism, in order to make space for people's own stories.

As a guide to invention and design, this study has underlined the need to recognize our users' intelligence. Instead of making applications that anticipate what a user wants to do in every particular situation, we try to provide information that is relevant enough and clear enough that the user can take a quick peek at it and decide how to proceed. A good example of how we are applying this finding is in the creation of a prototype, built after this study, which allows people to see the history of certain of their friends' activities. This prototype does not provide individual information, only aggregated data for the group as a whole. However, people who know the individuals in the group can parse the information and infer whom each piece of information relates to.

For Motorola and its vision of Seamless Mobility, it is important to understand the navigation of boundaries through anticipating and controlling their transitions. Our findings all point in the same direction. People do not need technology to maintain boundaries, but they *use* technology in artful ways to manipulate them. Empowerment comes from control, but an action not only needs to be technically possible, it has to be socially acceptable. This

study has led us towards a design philosophy in which we support the pragmatic realities and social conventions that people currently use in their mundane daily transitions, imposing neither boundaries nor boundlessness. By this ongoing effort, we can build seamless mobility without leveling the features of the everyday social landscape.

Notes

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We We We All The Way Home: The "We" Affect in Transitional Spaces

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The majority of ethnographic studies for businesses have focused on places: home, work, "third places," and even "non-places". Daily life, however, is composed of transitional moments – matter of "in-betweeness." Transitional spaces and movements have increasingly been sites for "filling the gap" informational and "cocooning" products. We explored the in-between transitional moments on buses and commuter boats in Salvador, Bahia. We contend that the experience in this time-space creates a "we-tween" or just a "we-we," which engages the people and the environment in a moment of group solidarity and interactivity. We contrast this study of in-between to those we conducted in "Western" countries. The "we" affect suggests that corporate efforts in design and development have been disproportionally focused on Euro-North American values, which has direct implications for corporate innovation. We highlight the value of a multi-voiced approach in the collaboration between our US research lab and our product lab in Brazil, as one kind of solution to the problems of appropriate innovation.

Transitional Experience

Transitional spaces are traditionally taken as "non-places" or momentary space-time between activities – those that are deemed "meaningful" – but a careful observation shows that they are in fact important elements of daily life that tie these activities together. One the one hand, daily life activities increasingly revolve around them – setting the rhythms of our daily life. In large urban areas, for example, we, more and more, organize our work and activities around commuting time, rush hours, bus schedules, and the like. On the other hand, they serve as "buffers" (or ritual spaces) to help us "transit" from one activity to the next – a space-time in which people, for example, put themselves together for a job interview, deal with their anxiety before a doctor's appointment, reflect upon the decisions and commitments just made in a business lunch, ponder on the conversation with one's manager, and more. Because our concern with making these and other in-between moments more productive – an intrinsic European and North-American value – we have overemphasized the former (i.e., the increasing negative impact of transitional spaces on our personal time).

However, this came at the cost of overlooking a myriad of distinct cultural practices taken place around these moments. For the most part, while we recognized the situated nature of these practices, observing the social, cultural, economic, and technological differences across different social groups, cultures, geographies, and others, we have fundamentally classed them as the same phenomenon – a momentary interruption in the flow of our individual everyday activities. As such, one key cultural value calls the attention: individual accomplishment. We focus on the individual, despite the collective experience that unfolds in transitional spaces – underscoring the actions, experiences, and needs of the individual. We thus assume and construct a "social network" of egos ("I's") connected by personal interests, intensions, and the like through distinct communication and coordination actions. As result, of course, we attempt to resolve this "on-the-go" productivity issue, by filling these "empty" moments and spaces with communication, coordination, productivity, and even entertainment technologies – informational and "cocooning" products – for the individuals.

In our observations in Salvador da Bahia, Brazil, we encountered different cultural manifestations in and through which "I's" – or individual subjects – get merged and a new form of collective subjectivity emerges involved everyone around. Our experiences riding buses and even boats in Salvador, made us take transitional spaces (1) as a matter of "in-betweeness" – buffers between distinct activities – and (2) as fundamentally collective experiences – momentary space-time that creates "we-tween" or "we-we" experience, which engages the people and the environment in a moment of group solidarity and interactivity. In this paper, we thus contrast this study of "in-betweeness" in Salvador to those we conducted in "Western" countries. The "we" affect suggests that corporate efforts in design and development have been disproportionally focused on Euro-North American values, which has direct implications for corporate innovation.

This paper is a dialogue between the two authors' perspectives on their personal and joint experiences riding on public transportations in Salvador as transitional spaces. We start describing two of these moments on buses and commuter boats. We contend that the experience in this space-time creates a "we-tween" or just a "we-we," which engages the people and the environment in a moment of group solidarity and interactivity. We contrast then this study of in-between to those we conducted in "Western" countries. Finally, we discuss the implication to corporate innovation, not as much as a series of design ideas, but instead as the approach for the collaboration between our US research lab and our product lab in Brazil, as one kind of solution to the problems of appropriate innovation.

It Was a Hot, Steamy, Crowded Bus Ride

Salvador da Bahia is larger than it looks on a map. It was the end of summer in Bahia. We were in there to study maids and other lower income working women. We had been out to a "suburban" area of Salvador to talk to some maids. It had been about a 45 minute cab ride in the morning but now we were headed back to our hotel in the city center.

We would not deny that we tried to catch a cab back to the heart of the city after an exhausting day of interviews and going through daily life routines with the women but unsurprisingly there were no cabs to be found in the poorer suburbs. We caught a bus. Buses are, of course, one of the primary ways these working women travel to and from work, often taking an hour to two hours per side of the commute. The sun was beginning to set as we climbed aboard. It was crowded – as one usually finds in large cities in South-America.

There were four of us traveling: the two authors and our local guide Antonio and his girlfriend, but only Adriana and Antonio managed to find a seat. As very common in Brazil, Adriana promptly took our backpacks and held them throughout the ride – if you find a seat you are supposed to somehow help those standing – "less fortunate." It was immediately apparent this was neither like the early morning buses nor like trips we had taken on the Tube or buses in London, the BART in San Francisco, the trains in Tokyo or buses and the Metro in Moscow. The bus was not quiet. There were conversations happening everywhere on the bus, from front to back. As people boarded, like ourselves, they were drawn into already happening "conversations".

Figure 1: Bus ride

Conversation is rather a weak word really, for there is shouting, laughing, giggling and arguing happening on the bus. People move from standing to sitting positions and

sitting to standing position. There are no introductions, no real pleasantries or greetings, no sense that you are an individual anymore – once on board, you are a part of the bus. Indeed, it is bus as super organism, to reappropriate an old Durkheimian concept (Durkheim 2001). Once we passed through the doors we had become part of the "we-we." A 30-something woman asks of Ken "So do you think that was right of my boyfriend? Do you?" He responds with a puzzled look, taking too long to process the sentence in Portuguese, much less respond. She turns and continues the question to the woman next to him. Who more or less agrees and the first woman continues with her story talking to Ken and the other woman, as well as, two other standing passengers at this point.

Milgram (1977) has talked about familiar strangers; people independently travel through the same part of the city – perhaps seeing each other over and over again at the commuter train station, and perhaps eventually tilting your head for a "hi" or perhaps not. The people are familiar to one, like the landscape on one's commute but never become friends. This is not the bus ride. There is nothing "familiar" about most of the people to the other passengers. They do not know them, or recognize them, or care about their biographies, necessarily. They are, for the most part, strangers. Strangers, however, does not necessarily mean distancing. Indeed, these are more like fellow travelers, who, thrown together, take life for a ride. Nor is the atmosphere one of a club opening in LA: no one exchanges cards, gives biographies, works the room/bus for social contacts, in short there is not the utilitarian value of "networking," as Putnam (1995) describes the work of oraganizations like Elks clubs. Nor is it networking, the verb, that is often associated with "social software" like LinkedIn, which are designed to make contacts for work that payoff. No numbers, names or business cards are exchanged. No requests for follow up contact are given. It is not about socio-economic status exchange – the first 30 minute conversation between American businessmen on an airplane. There is no obvious "instrumentality" or "productivity" involved in bus ride. The closest analogy we have found is like walking into a party but with no corner to hide in.

It is a strange kind of conversation whose intension is for the most part to keep everyone connected to each other – it is the "bate-papo" (shooting the breeze) that permeates the environment: small-talks about light politics and life, gossips with sexual suggestions, word games, and of course complaints about everything. Starting and maintaining these "bate-papos" are the "natural" thing to do – creating and maintaining the bonds that turn the experience into an enjoyable one. Clearly, one should not forget the loud music in the background – if not from vehicle's stereo, or from a passenger's own hi-fi – helping consolidate the atmosphere.

In this environment, one cannot just "stand" in this crowd. Nor can one just sit and stare out the window, which Antonio tries to do. A woman in the seat next to him asks the man in front of them whether he would give her an ice-cream he is carrying in his cooler – he is a street vendor, who probably spent the day selling ice-cream on the beach. They start negotiating whether he should give it for free or not and that conversation, as by "magic," turns into one about religious values – apparently the man was evangelical, and, of

course, we were in Bahia, where one breathes religion everywhere, everyday. Soon they, together with a woman standing, who has just joined the conversations, are engaging Antonio. He looks out more. They talk more to him. Despite repeated attempts at resistance, soon he is pulled into the bus.

People continue to get on and off the bus during the ride. Getting off is the only way to be alone, to be an individual person again. Getting on, pulls you into the interaction, the dynamic, the superorganism of the "we-we-we" all the way home.

Whatever Floats Your Boat

The bus alone would not have been exactly compelling evidence to bring back to Intel to argue for an adjustment to our thinking, however, we saw evidence of similar phenomenon throughout Salvador. Another time, we were coming back from a day-long site-visit and interviews in one of the bay islands – Ilha da Maré – whose only access was by boat. Ilha da Maré was one of the first islands being colonized by the Portuguese in the region, who, after arriving there by chance on a hazy day, built a church and established a small settlement. For many years, the Portuguese exploited African slaves in sugar cane crops, who eventually became the dwellers in the small fisherman village on the other side of the island we visited that day. Nowadays, it is getting increasingly harder to live out of fishing, so more and more locals are turning to tourism – namely, opening bars on the beach – or finding jobs in Salvador to make their living.

Our experience riding a boat in fact started earlier on that day, when we took a boat to get to Ilha da Maré. No boat captain wanted to take us to the small village on the other side of the island because it would mean a 30 minute longer trip – they usually take people to the tourist area to which the great majority gets off. Antonio then started articulating with other local people who also wanted to go the village, and formed a small coalition large enough to convince one of the boat captains to take us on the longer ride. After about half-hour of discussion, they finally agreed to take us. At that point, we had already met most of the people who live in the village, and even met a young woman who had recently moved to Salvador in order to finish high school – apparently an unusual decision for people from that particular village – and who took the time to be our local "tour" guide. For the locals, there was nothing unusual about this spontaneous collectivism (or collective actions) that help them cope with everyday struggles, say, to get boat captains to agree to take them to the village so as to avoid a hour long walk through the island, and more importantly making the experience more enjoyable (or, we may say, less painful).

It was a typical summer day in Bahia – hot, hot, hot, and sunny. After visiting the village, carrying out the interviews, and walking for about one hour through Ilha da Maré, we stopped by one of the local beach bars for some cold water and very cold beer while we waited to the next boat back to the continent – it could not be differently, we have to admit. A loud music coming from one of the boats announced that it was ready to departure. We forgot to mention but the island has no pier – to get on or out, people have to get their

pants wet, no matter if you are an old lady carrying her groceries, a young guy carrying his new TV set, a toddle with her parents, or an American anthropologist.

We had nevertheless to let this boat go and waited for the next one – apparently the music was too good as it got overfull (as long as there are people willing to take it, they will bring in). The second boat pulled in a couple of minutes later – a smaller wood boat but playing equally loud music. We decided to take our chances and get on this time. We sat at the roof on the outer bench facing people on the inner bench – the boat had basically four bench rows, where the inner benches were placed back to back facing the outer benches. As we should have anticipated, this boat also left the island overfull. No one was wearing lifevest or bothered looking for one, which was seen more as an annoyance than anything – people wanted to enjoy the ride after all, not be "bothered" by (or reminded of) the potential danger of that 30 minute trip. At least, on the roof top, we did not feel too claustrophobic and the music did not seem so loud.

Figure 2: Meanwhile Ken has a nice chat with one of the locals

Initially, people sat with their parties but as soon as the boat left the island, people started moving about. Kids went to the back to play, girls grouped together with some young guys also on the back and started talking, laughing, discussing, and the like. One young man, who apparently got on the boat to be with his fellow friends, jumped on the water and swam back to the beach, soon the boat started getting in rougher waters – to enjoy the company no matter how brief this might be. On the roof top, adults also had fun –

some pulled out some beer cans from the coolers, some started singing and trying some samba steps in the limited space they had, while some stood up to appreciate the ride. Suddenly there were no longer parties, but one. Everyone was supposed to participate; in fact everyone was drawn into this single collectivism – regardless of your socio-economic status, skin color, religious background, or native language. It is not the case that class and color differences cease from existing, as Freeman pointed out in his studies of class relations in public spaces of Rio de Janeiro (Freeman 2002), but that people, regardless of the background, are drawn into participating.

In the middle of the ride, Rogerio was entertained taking some pictures of the crowd on the back of the boat, when Ken was caught in a "conversation" with a local man. It is hard to pin down exactly what the conversation was about, given that the man was speaking in Portuguese and slightly drunk, and Ken was slowly trying to catch up with him. But, a meaningful interaction was created and Ken was able to participate in this "conversation." To exchange content was not necessarily the goal of the interaction – the point was to engage in some sort of interaction that would bond all together – and no one was expected to be left aside.

We again want to emphasize the collective nature of this experience in Salvador. In this case, it would seem that the whole is more than the sum of the parts. Thinking of collective experience in terms of a multiplicity of individuals fails to see the forest for the trees. Indeed, we want move some corporate attention to understanding the "forests", the collectives around the world. Rather than the constant focus on the individual, we want, instead, to be able to talk about collective experience; intersubjectively negotiated, individually incorporated, only more or less shared, and yet a common lens through which we make sense of everyday experience.

Tubing Alone

The contrast to a ride on the Salvadorian bus or the boat with one on bus route 73 (Jungnickle 2006) London or to the Tube is striking. The Tube, though equally as crowded during the same time of day, is full of people staring: up at advertisements, down at shoes, off into space while listening to music. Marc Auge (2002) talks about this kind of experience as "collectivity without festival and solitude without isolation" (pg 7). Auge describes the experience as one where people acknowledge the presences of others, then avoid them to show they are not a threat. They express an air of civil inattention.

Being alone-together has been a repeated "finding' in much of our work – people attempting to move comfortably through space without having to engage in the social environment. There are predominately two ways we've seen this happen. One has been commonly referred to as "cocooning" or a "nurtrant" technology or creating a "bubble." Five years ago, we saw this with the Sony Walkman, now the Apple iPod. Michael Bull wrote about the Walkman:

> *Personal-stereo use enables users to cope with, or deal with, stressful emotional situations through use in situations when they would otherwise feel vulnerable, alone, or when they would otherwise be forced to think about unwanted things due to lack of distraction* [2000:49]

He goes on to claim "personal stereos are a tool enabling the individual to maneuver through urban spaces without coming directly in contact with other people" (2000:103) Of course the books and magazines play a similar role. The other form of avoiding the present of in-between has been when people are absorbed in life elsewhere, ala their mobile phones. Gergen (2000:227) has called this "absent presence" that he describes as when "one is physically present but is absorbed by a technologically mediated world of elsewhere." Ito (2005) have demonstrated how teen girls in Tokyo use mobile phones to be with their friends across town, while being in their bedrooms or being with their boyfriend, while riding on a train in another part of Tokyo. The vast majority of the technological products developed in the last decade have focused on either isolation or escapism for the individual in these public spaces.

Figure 3: Sony presenting people as an annoyance and enabling isolation and escape. Newark airport billboard, April 2006.

Although it is true we move individually, collectively we produce flows of people, capital, and activities that serve to structure and organize our daily life experiences. Collectively, we create successful products. As we further explore cultures beyond our own and how they deal with these transitional spaces, we may learn new ways to create needs (Baudrillard 1983) and new products.

"I Need One"

The products that we have suggested from our previous research have continued the trends of social isolation, escapism and a focus on "me." It is fairly clear that other companies as well are pursing these same directions. The Salvadorian transitional experiences have called these individual and isolating directions into question, at least as the only way to develop products and services for transitional moments and movements between places. It opens up possibilities for further inquiry into products or services that temporally spontaneous engage and connect a person in a collective in transition to the environment and others around them. The idea of the collective has been little explored. We, in industry, can talk of WOM (word of mouth) or "social software" but still resist taking the collective seriously. In the end, we share the delusion that we sell individual products to individual people.

As we attempt to develop products and services for transitional spaces, it becomes important to view this mobility as a collective rather than an individual phenomenon. We are concerned not so much with how specific people move from A to B, but rather with collective phenomena in two senses. The first is how repeated patterns of movement create larger cultural structures, and the second is how those structures then serve to make sense of particular mobilities. This is very much a relational view of mobility. When an individual undertakes a bus ride, the journey makes sense not purely in terms of an individual experience or in terms of the historical pattern of previous journeys, but in the relationship between the two.

We have attempted to disentangle the individual experience from the collective. The individual approach focuses on the actions and experiences of the individual. It assumes a solitary actor who is independent decision makers. In the transitional experience of the bus, we've seen how this has not been the case. There is another thread beyond the collection of "I's" to be discussed that follows a pattern of "on-the-go" productivity in terms of communication and coordination of people. Recent attempts at social software or office applications point to this notion of the multiple "I's" or individuals attempting to coordinate purposeful action. The ethnomethodological literature that Randall (2005) described provides a door into this way of seeing. A characteristic of this line of research is the purposefulness of the individuals acting together to get something done. There is a long tradition of this work yielding results that eventually become products or services. We hope these continue, however, wanted to point out that we are trying to open a new line of inquiry for research and product development along the lines of an emergent collective. We have presented examples of where the whole is more than the sum of the parts; it is characterized by local participant created content, emergent structure, and loosely and ephemerally connected social groupings as the basis of the interactions.
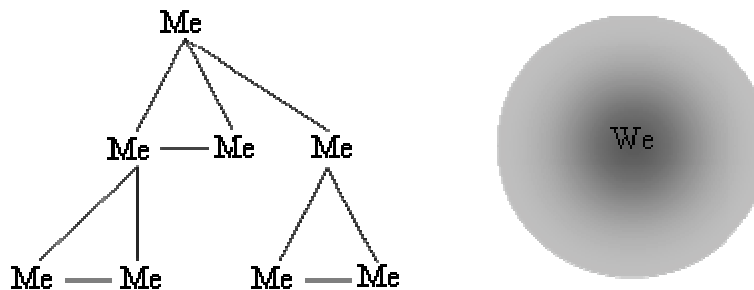
Figure 4: "Me-Me" and "We-We" structures – These two diagrams depicts the different ways in which we can understand the social interactions that take place in transitive spaces. On the one hand, the "Me-Me" structure emphasizes the connectivity between individuals – often represented by an "ego-centric" social network. On the other hand, the "We-We" structure emphasizes the emergent connectedness of collective interactions – in which the individual "Me" blends into the collective "We."

Far Apart Together

In doing ethnographic praxes in emerging markets, we set out to investigate and unravel the nuances of people's daily lives. As the first British explorers of the 18th Century (Pratt, 1999), we are the eyes and ears of "the Empire", reporting back the "exotic" experiences, people, and practices so as to help create new understandings, new markets, new "needs" and new opportunities. To this end, we create not only the images of the far-distant lands – narratives and discourses about different lands that populate the imaginaries of the industry. Thus, aligned with economic goals of multinational corporations, we increasingly construct the "realities" of the other worlds and, by problematizing their realities, we come to create customers' needs leading to market and product opportunities. Many critical and contemporary writers have written about this as new forms of colonization in a post-colonial era. But, this brings to the fore the question of how can we avoid this colonial eye on the lives of these people and rather promote a form of ethnographic praxis that supports the creation of innovations that are not just appropriate for the market, but ethically appropriate for everyone.

We thus problematize the translation of our findings into "implications for design." "Naturally," a meaningful and expected closure for this particular genre – writing ethnographic praxis in and for the industry – is to offer readers and ultimately business decision-makers an "insightful" discussion on the "implications for design" (see Dourish, 2005 for an interesting discussion about this topic) or products, or processes, and the like. We take issue with this as the valuable part of the emerging genre of ethnographic praxis for this community. Ethnographic findings should stand as an integral part of what the community is about – the doing of ethnography and learning from it. What we learn is not necessarily what is immediately valued by the corporation, but should be what is of value to

learn about human behavior. What we learn may also depend on who "we" are. What is of value to one corporation may not be to another. How the business makes use of findings, should vary from business to business – a real value for us as a community would be continue also with the tradition of learning about human behavior. The learnings can they be incorporated, or not, as other ethnographers decide on the value and applicability for their corporate context.

After only one year of a conference, the pressure of the emerging genre already is upon us – what is the relevance to me as a corporate worker. Tell me what this means to me! There is precious little room to have a finding about human behavior and allow ethnographers to use their analytic power to try to understand what that might mean for them in their context of business. So we will comply with the "applied" lesson. Rather than focus on how "we-we" is being used within innovation, we will look at process. We underscore the collaboration between our US research lab and our product lab in Brazil, as one kind of solution to the problems of appropriate innovations – whatever kind innovation they might be. This collaboration avoided assuming symmetric or purely overlapping roles (or some kind of hidden, asymmetric, neo-colonial relationship) in the field; instead, it rested on the distinct, but complementing, backgrounds and experiences of each researcher. Our collaboration thus engendered a multi-voiced dialogue between an American anthropologist based in the US, visiting a "foreigner" site, a local Brazilian ethnographer, who lived in the US for over 8 years, and a local Salvador couple, one of whom was a photographer and the other worked in an NGO.

For Intel Research, it is a routine course to work with local (non-marketing) researchers, however, working directly as equal partener with someone from the product group who was "in-country" was a new experience. In the past, the Intel Research teams have worked with market researchers and engineers from the product groups, though most often in the USA. These types of partnerships have largely been "safaris" – good for developing "buy-in" from the people who will use the data and providing the experience of "being in the field." There becomes ownership of the results that help to ensure the insights work their way into products. This process is not altogether different in essence from what Mack (Mack 2005) has described. For "close-in" work in a domain known to lead to results, this is fairly effective.

Typically, however, Intel Research's charter is not to work for a product group but to have their own three year research program. The program should provide value to the company but not necessarily any one product group. The Salvadorian research around urban maids was part of such an effort, not product directed. We were exploring the lives of maids in urban areas, as well as, understanding the relationships between maids and "donas de casa" (housewives) following up on earlier work on upper and middle class women in Brazil. Normally, Intel Research would have hired a local cultural expert, someone from familiar with the history, culture and social practices of a place to facilitate research and analysis. We deviated from this by using a local couple who had an understanding of the city and particularly this population in Salvador. The couple, however, did not speak English.

Part of the typical role of our research facilitators was taken on by partnering with the Platform Design Center in Sao Paulo.

The Emerging Market Product Group's Platform Design Center (PDC) in Sao Paulo was created to innovate locally for non-inevitable technologies. One of their key segments is what has been referred to as "the next 10%", that is, those people who cannot afford current computing technologies. They, therefore, had an interest in these lower income women; The intellectual partnership made sense. They are a relatively new group. Their charter is to cover local innovation for all of Latin and/or South America. Clearly, this is a sizable undertaking for a group of less than 10. At the time of the study, there was only one researcher on the staff so partnering with Intel Research for another set of eyes and ears made sense.

There were two key areas where the partnership was extremely effective: (1) in the field and (2) back in the cubes. Beyond the mundane but crucial (occasional) translation into English, Rogerio (PDC) was key in providing instant cultural commentary on on-going street activities, as well as, in (often informal) conversations with participants in our study. Ken (Intel Research) asked questions about the obvious, the taken-for-granted – a strategy was in fact in place where Ken was able to play the role of the traditional "stupid" foreigner, which legitimized him to ask obvious, apparently nil questions.

Further, combined product-research and research endeavors led to some unusual brainstorming each day about new products and directions. The second area had to do with "being back in the cubes" or really about proselytizing the research throughout the company. Having one voice, or even many voices from the same product group, is not as effective as having two completely different groups suggesting the same ideas and directions. In particular, what we have been trying to stress is the collective nature of many activities in non-European/North American societies. As Carlson (1992) pointed out:

> **Successful products are** more than just a bunch of technical solutions. They are also **bundles of *cultural* solutions.** Successful products, unlike inventions, succeed because they understand the values, institutional arrangements, and economic notions of that culture

Working side-by-side, research group + product group, national + other national perspective yielded insight about a bus ride that may be key in opening up whole new sets of locally appropriate innovations: meaningful and legitimate products and services.

Leaving the Bus

This study has underscored the importance of the collaboration between our research lab in the US and a local product lab in Brazil, as one kind of solution to the problem of me-design, namely the interplay between unveiling taken-for-granted practices and uncovering deeper meanings. The collaboration leads to an understanding of a

transitional space that revealed different ways of thinking about transition rather than isolation and exclusion or the alternative of "me-me" collaborative productivity. We've focused on the importance of participant created content, emergent structure, and loosely and ephemerally connected social groupings as the basis for innovation. We've revealed opportunities for the corporate enterprises to explore the "in-betweenness" and transitional spaces, like the ones we Salvador, as well as, to discover new was of thinking about "we" and not just "me."

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Considering Ethnography in Various Business Settings – What Is Success? TRACEY LOVEJOY (Microsoft) – Moderator

Between Hype and Promise: Two decades of becoming

JEANETTE BLOMBERG
IBM Almaden Research Center

The invitation to participate in this panel has been an occasion for a personal reflection on where we've been, where we are, and where we're heading. The "we" here is not all encompassing, but instead references the people with whom I have shared all or part of a journey that began more than two decades ago. I want to begin by recounting a recent conversation I had with my friend and colleague, Lucy Suchman. Having been at IBM Research for about a year, I was telling Lucy about all the press coverage I was getting, you know the – surprise, surprise, anthropologists at Big Blue – sort of thing. Lucy smiled and reminded me of the file she'd been keeping for the last couple of decades, now quite hefty, with articles proclaiming the discovery of anthropologists or ethnographers in the corporate world. We had a good laugh, sighed, and then wondered how far we'd really come.

So what's up with this? Why are we discovered every couple of years? Of course, there's the seemingly irresistible journalistic appeal of the image of the pith helmeted anthropologist, notebook in hand, observing the corporate "natives." But there must more to it than this. I wonder if it isn't related to the fact that we've never quite made it – that we're always on the verge of breaking into the mainstream – that we have all this (unfulfilled) potential. So then what has held us back?

There are many answers this question and I offer only a few here. First, the basic question we ask, "What's going on here?" turns out to be a potentially dangerous question, particularly when one is agnostic about the answer. Without some control over the implications (for technology design or other organizational interventions), people might just as soon not know. Second, the answer to this question often portrays a world that is complex, emergent, changing; where simple fixes, silver bullets are not going to do the trick. Third, we don't present ourselves as having the answer, but instead with an approach for getting closer to a "better" understanding and course of action. Fourth, we listen and don't assert we already know the answer. In fact, we delight in being "wrong" because that's when we learn the most. The corporate world has little tolerance for "I don't know, let's go take a look." And fifth, we often must work against or in relation to dominate logics (e.g. rational,

engineering, quantitative) where our repeated arguments for an alternative vision may go unheeded.

While we may be perpetually becoming, there are still many successes we can point to, not the least of which has been our ability to do serious ethnographic research in corporate settings for over two decades. But there are many others, only a few that I mention here. We have (1) made invisible work, visible to those who design technologies and other organizational interventions, (2) made "the social" a perspective to be taken seriously in the design of technology, (3) opened our colleagues' eyes to alternative logics, (4) contributed to theoretical and methodological advances in our respective disciplines, and (5) provided a home for fellow travelers who believe that it's a good thing if workers have a say in how their work is organized, including the technologies they use.

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Ethnography of Change: Change in Ethnography

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This paper examines change as a model for success in ethnography. In business vernacular, change is relative to difference, and difference is thought to add value and differentiate a brand as unique to consumers. This paper argues that change is not a byproduct of the need for differentiation, but rather, change creates value, in and of itself. Qualified anthropologists working in business can maintain a sense of difference from pseudo-ethnographers by incorporating change as a model. When qualified anthropologists succeed in ethnographic research it is because they are able to change with corporate clients, and translate cultural principles into practical issues. This paper concludes by calling for anthropologists to lead ethnographic change with their culturally-based insights, thereby informing clients and changing the way clients relate to ethnography.

Change is a constant in the business world. Consumers' tastes shift, new products enter the market, and even established brands must reinforce their position against competitors. Change is also relative to creating difference, and difference is the key feature of branding in marketing. In business vernacular, developing a sense of difference from competitors is thought to add value to a product or service and differentiate a brand as unique to consumers (Davidson 1992). This difference is variously called the USP (unique selling proposition), brand equity, and point of differentiation. I claim change can also be a model for success in ethnographic research.

Since maintaining difference keeps rivals from co-opting a brand's position, change may appear merely as a byproduct of the need for constant improvement and innovation. Yet, value is created in change itself (Appadurai 1986). The circulation of ideas, desires,

insights and innovations among ad agencies, corporate teams, consumers and products is what creates value. Branding, then, is not about creating uniqueness as much as it is about sustaining difference for the sake of value, and value is created through perpetual change. In this light, branding is the constant motion of its relational parts: consumers in motion (constantly buying more, so market share grows); advertising in motion (so campaigns never become stale); trends in motion (against which brands identify); corporations in motion (employees continuously shift within a company); and especially ad agencies in motion – their high turnover rate ultimately brings new people, new ideas.[1]

So what creates successful ethnography within a corporate setting from the perspective of change? Indeed, even the best marketing studies on consumers, brands, and competitors make a brief impact before they are supplanted by newer studies, newer techniques. I claim success is created by changing the brand "ethnography" along with the corporation's views on change, thus keeping its value in motion. This can be accomplished simply by changing what we do objectively in an ethnographic study (adding self-reporting gadgets such as pagers, camera phones, or fashioning more MTV-like video reports); better still, it is accomplished by changing subjectively the way we impact our clients and the way they think about what we do – making them smarter.

We are at a critical juncture in the business of ethnography. Its novelty is waning. New "ethnographers" saturate the market. Change in ethnography is about keeping it in motion, maintaining its value as the anthropologist's brand of human-centered research. The wave of gadget-laden pseudo-ethnographers may indeed signal a need for change in the changeling of business ethnography itself. Where the pseudo-ethnographers often succeed in marketing their ethnography is in bringing "actionable" practicality to insights. When qualified anthropologists succeed in ethnographic research it is because they translate cultural principles into practical issues. If we lead by informing our clients with thoughtful, culturally-based insights, we can foster lasting relations with smarter clients who will see beyond the veneer of gadgets. It is then our clients who will demand more, since informed clients means more informed ethnographies.

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Beyond the Fabulous Wealth and Celebrity Acclaim: Success in Consultancy

RICK E. ROBINSON
Luth Research

I'd like to take a slightly approach to this topic from those of my co-panelists. I'm not going to talk about success as 'an ethnographer,' which I'm not, at least by training anyway, or the success of ethnography as an undertaking, an enterprise, within the setting within which I have worked. Rather, I'd like to talk about what it means –to me, because this will be idiosyncratic I'm sure – to succeed as an ethnography practice. To talk about 'a consultancy' as a collective succeeding over time.

As soon as one begins to talk about consultancy, the elephant of 'the client' enters the room, along with a couple of implications that match him in scale.

With a client comes the expectation that ethnographic work will be productive in the sense of actually producing some sort of artifact – a report, a recommendation, a PowerPoint deck or a workshop, but something. And there is a great deal that is entailed by that expectation that works both backwards and forwards through the work. But that expectation is not so different from the expectations of a practice within a corporation research group or even many academic situations. It is nice if those products end up as things out in the world that your group can point to and say, "we helped make that"

And along with the thing produced by the project (a notion itself more limited in this setting than it might need to be), is the idea that the thing produced must be instrumental, that it will do something or enable something to be done, that it will result in change. And with change comes engagement, real engagement with practices, with products, and with lives. And with engagement and change comes power and its consequent responsibility. And an inability to sit on the sidelines and judge or comment.

What is Success?

But again, that is a measure that is not one discriminates the work of a consultancy from the work done in other sorts of corporate and applied settings.

Looking a little harder then at what success might mean as a consultancy means looking at those productions (and my apologies for a lack of time and brains enough to say more eloquently what this involves) beyond the fact that they produce something – a model, a metaphor, a design – or that they result in something – a product, an organizational change, a strategy.

Ten years ago, I think we would all have been thrilled to see the kinds of cases that we saw in the first session of this conference – case studies that show that ethnographers and ethnographies can grapple with interesting problems in the world, that they are taken seriously by our clients, and that they result in real changes in the world.

But after a while, there is a familiarity to the stories. They tend to begin with the initial framing of the project by 'the client' – and it usually is received, not co produced—and then the re-framing of it as an ethnographic project. Fieldwork approaches and field stories lead to the climax of the story, the "it's not about x, it's about x(!)" moment, followed, as a dénouement of sorts, by the way in which the client absorbed, acted upon, or was changed by the work. Not that this is bad. That this is now so common as to seem routine is evidence of the growth of the growing success of ethnography as a practice in industry.

But for a consultancy to produce this story over and over, even with new settings, new methods, and new 'it's about' moments, isn't growth, isn't success. It is the cost of entry, it is what everyone needs to do, and it is dangerously close to a commodity. As Ken Anderson said to me in a recent conversation, "Where is the joy in that?" There should be joy in the work.

Consultancies are in a unique position to engage with their work differently. They can actually say, "no" to clients, to projects, and especially to ways of doing projects, though to do that is an act of economic as well as moral courage. They also have the opportunity to think, between and across projects, about what they are doing, and how they are doing it, and the control of themselves as a practice push, to evolve. Every project should be an opportunity to play, to push boundaries and to shape the space that those boundaries sketch.

What success translates to over time cannot be projects or mechanics but rather perhaps a set of values which are associated with the group, and which have various, though recognizable manifestations through the methods, the theories, and the products. And in keeping that alive is, for me at least, where the joy is.

Recently, a friend sent me a (somewhat gloating) picture of his new all carbon-bicycle. The picture came from the company's web site, and so I followed the link back to learn a bit more about it. Inconspicuously placed along the row of menu buttons on the front page was "our mission," which led to this simple sentence: "To design, build, and

deliver the best bicycles in the world." A consultancy in this space should have that kind of clarity, sights set that high, and the kind of chutzpah that makes one think they just might get there.

I think that success in this form can be inclusive of mistakes, of work that doesn't go so well.

Bad meetings, disappointing projects -- all of that happens, but in a practice, it all also makes a difference to the next project. And not just the next project that the person that made the mistake works on, but all the next generation of projects that the practice does. I've been very lucky to be part of practices at places like E-Lab and Sapient's XMod where the work was a collaborative practice, without a star culture that functioned as an evolving, developing set of ideas, with a lot of voices deeply involved in that development.

Developing that practice, and the coherence (even if temporary) of the practice across a relatively large group of researchers has been my greatest success as a consultant, not the products in the world, nor the changes in behavior of rather large organizations like Ford or McDonald's.

And if they are, when all is said and done, Ford's cars, McDonald's French fries, what kind of success is that? A very good one. Things the practice creates, little theoretical constructs, tools like project rooms, models and heuristics are adapted and changed to better suit new settings and new organizations. People argue about them, they evolve, but they remain in the conversation. And the moments of joy get recreated. That persistence is success.

Experience Models: Where Ethnography and Design Meet

RACHEL JONES
Instrata Limited

This paper contributes to the ongoing debate about the role of ethnography in design. Whilst I believe that the contribution of ethnography to design has yet to be fully explored and articulated, I also hold the view that ethnography has a more effective role to play in "informing design" that goes beyond developing design guidelines, and yet involves a very different type of activity to specifying requirements. In this paper, I begin to outline the roles ethnography currently assumes in design. I explore existing ways that ethnographic research is involved in design and identify the need for a clear process. I suggest that developing an experience model would add great value to transitioning from ethnographic research to designing concepts. Though not new, experience models are not widely known nor practised. I believe that as practitioners we need to adopt experience models into our broader practice to make our findings actionable.

Introduction

In this paper, I focus on the role of ethnography in innovation and design. Tight couplings between ethnographic research and design have been viewed as successful by design teams and the academic community (such as the air traffic control research carried out at Lancaster University, Hughes et al, 1993). Large design consultancies, such as, IDEO and Smart Design, and R&D departments in large technology organisations, such as Microsoft and Intel, have set up ethnographic research groups over recent years. However, there is an ongoing debate both within these groups and in the broader EPIC, HCI and CSCW (Computer-Supported Cooperative Work) communities, as to the role played by ethnography in design. In part, this is to clarify and justify the value of ethnography, and in so doing seek appropriate evaluation criteria with which that value can be judged, and in part, to establish the role of ethnography within an organization.

The role of ethnography in design is generally viewed as one of "informing design". Plowman et al. (1995) ask the question what are workplace studies for? In their review of workplace studies in CSCW, they conclude that there have been very few attempts to translate research findings beyond the provision of a few general design recommendations.

In software development, "informing design" has sometimes been construed as one where ethnographic findings are used to identify system requirements, and ethnography is viewed as an activity that is situated as part of the requirements elicitation process (Somerville, 1998). Bridging the gap between descriptive, ethnographic accounts, and

reductionist system entities, such as data types, architectural components and data flows, is problematic. The problem has been perceived as one of poor communication and the response has been to develop tools, such as the Designers Notepad (Hughes et al., 1994) and a pattern language (Erickson, 2000).

Others have sought to reconfigure the relationship that gives rise to the problem. Dourish (2006) argues that the focus on implications for design is misplaced and in so doing misses where ethnographic inquiry can provide major insight and benefit to HCI. From an ethnographic perspective, technology is a site for social and cultural production. The gap between ethnographic description and the design of technology is where many interesting things happen and is of itself of interest to ethnographers. Therefore, ethnography per se does not accept a conceptual separation between research and design; ethnographers view the gap as not one to be narrowed or bridged but to be understood. Dourish (2006) believes that ethnographic research has much to contribute to HCI design. He says that "the value of ethnography is in the models it provides and the ways of thinking it supports… This may be as much in shaping research strategy as in uncovering constraints or opportunities faced in a particular design exercise."

Whilst I believe that the contribution of ethnography to design has yet to be fully explored and articulated, I also hold the view that ethnography has a more effective role to play in "informing design" that goes beyond developing design guidelines, and yet involves a very different type of activity to specifying requirements. By effective, I refer to ethnography playing a more formative role in design, and one of facilitating strategic action. (I realise this interpretation could be different to one that considers the broader success of an intervention.)

I aim to make two contributions to the ongoing debate about the role of ethnography in design in this paper. Firstly, I begin to outline the roles that ethnography currently assumes in design, and secondly, I suggest we adopt a representation that would help ethnography play a more effective role in "informing design", the experience model. Though not new, experience models are not widely known nor widely practised. In this paper, I identify the role played by experience models, illustrate the importance of such representations, and advocate extending our practice with such representations in order to make ethnographic research more actionable.

I begin the paper by outlining the roles ethnography currently assumes in design. I then explore existing ways that ethnographic research is involved in "informing design" and highlight the need to research best practice. I explain the essence of an experience model, how one is developed, its benefits and its unknowns. I give some examples of experience models that are available in the public domain.

Roles of Ethnography in Design

Crabtree and Rodden (2002) suggest three ways ethnography could be involved in technology design:

- **Identifying "sensitizing" concepts**. Plowman et al. (1995) point out that the most prominent contribution of workplace studies to design is the identification of researchable topics, such as situated action (Suchman, 1987) and surreptitious monitoring (Heath & Luff, 1991). Crabtree and Rodden (2002) suggest these might be best understood as "sensitizing" concepts (Blumar, 1969). These concepts draw attention to important features of settings to be aware of and potentially guide future research.

- **Developing specific design concepts**. This involves studying settings that may shed light on what abstract design concepts might mean concretely in order to sketch out and work up potential design solutions. In a sense this is a highly directed activity aimed at creating form to a concept that although abstract, already exists.

- **Driving innovative technological research**. While the focus remains on the technology in use, the aim is to explore the sociality of novel design spaces opened up by radical technology in real world settings. The main outcome is again one of sensitizing concepts.

Another common way that ethnography has been involved in technology design in CSCW is the following:

- **Evaluating design**. Hughes et al. (1994) use ethnography to conduct a "sanity check" on the design. Ethnography has also been used to inform the iterative design, that is, to take a formative role rather than a summative role (Twidale et al., 1994).

In praxis, I would tentatively venture to identify ethnography's role in design, broadly adding to the above roles in the following:

- **Context awareness.** This involves immersing researchers, designers and sometimes clients in the setting, for the purpose of understanding the context in which a product will be developed. By involving the designer in the research as it happens, the designer takes a more active role in interpreting the findings. It assumes little or no analysis of the setting.

- **Identifying key emerging themes**. Themes tend to be specific to an area of study, such as understanding how people plan their social lives, and developed with a view to identifying design opportunities and influencing design solutions. Developing the themes involves analysis of ethnographic fieldwork. Themes are illustrated with

strategically chosen exemplars and are often accompanied by design or messaging recommendations and guidelines.

- **Developing experience frameworks.** Frameworks are models that identify the key components of an experience and indicate the structural relationships between those components. Robinson (1994) indicates that they are built at three levels: individual, social and cultural. They facilitate the generation and mapping of opportunities. More is said about these frameworks later.

These roles can be mapped as shown in figure 1. The transition from understanding the setting to designing the solution space is a process that I have depicted as an arch, with activities moving from left to right. Moving up the arch from the left involves deeper analysis of the setting, and moving down the arch on the right involves designing more refined solutions. Context awareness is depicted as immersion in the setting. Developing specific design concepts is seen as a focused activity, moving directly from understanding to specific concepts, without necessarily identifying or representing the key components of an experience. Emerging themes is depicted as involving further analysis of the fieldwork with a view to making design recommendations. Experience frameworks are depicted at the bridge between research and design. Sensitizing concepts are depicted as providing an understanding of the underlying behaviour, including the setting, the process and the solutions. Sensitizing concepts impact the design but do not directly inform it.

Several of these roles involve ethnography taking a formative role in design, particularly, developing specific design concepts, evaluating design, context awareness, identifying key emerging themes and developing experience frameworks. However, given that Plowman et al. (1995) conclude few studies translate findings beyond the provision of a general set of design recommendations, I want to explore if there are ways of making findings more effective for design. In the next section, I will explore ways that ethnography is involved in design and suggestions for improvements, for each role.

Ways of Involving Ethnography in Design

In terms of identifying sensitizing concepts and driving technological research, Plowman et al. (1995) propose the following ways in which to increase the impact of work studies on design:

- researchers who are directly involved in projects where system design guidelines have been determined as an outcome should consider developing hybrid and tailored forms of ethnography which can play practical roles in various phases of design and implementation

- researchers should be more explicit about their intentions in publishing findings, but should not feel obliged to force design implications from their material
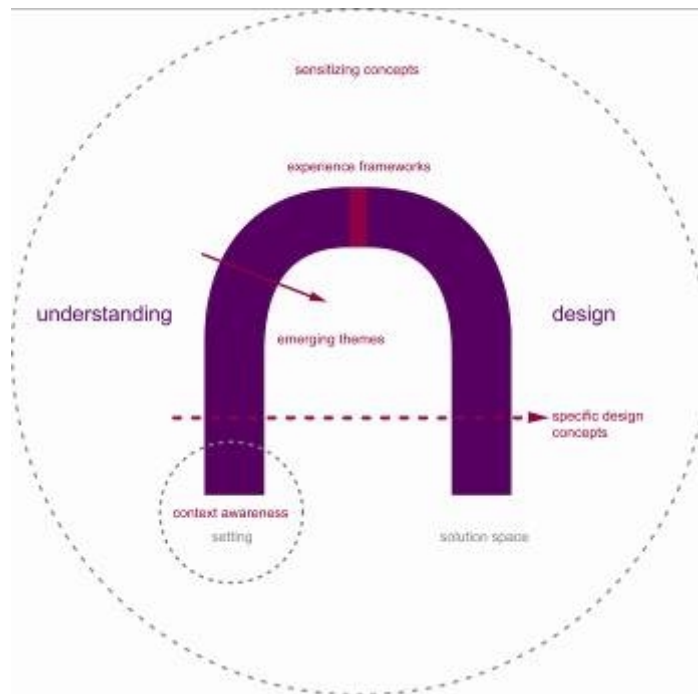
Figure 1 Roles played by ethnography in design

- researchers and designers should engage more in a continuous dialogue to help bridge the gap and misunderstandings between techno-talk and ethno-talk

In terms of developing specific design concepts and evaluating design, Crabtree and Rodden (2002) talk about developing specific design concepts as being a "polymorphous assemblage of cooperative work that takes place between ethnographers and designers" and "employing workplace studies to conjointly formulate sequences of machine-based interactions". My own experience of this activity is one of discursive meetings, in which concepts are identified and features emerge that are developed and gradually refined (Milac-Frayling et al., 2004).

In terms of context awareness and identifying key emerging themes, in a UK DTI report on US west coast organisations practicing ethnography to inform design, Paula Neal reports on mechanisms to improve the impact of research insights:

- build actionable outcomes from research with the design team. Neal says there is a need to take research one step further.
- encourage and reward research and design collaboration

- stretch the role of the ethnographer from the producer of knowledge to a collaborator in design innovation
- invest in developing new communication tools to make insights more tangible. Neal suggests using visualisation techniques.

It is not apparent that there is a clear process, or set of activities, or working practices, other than collaboration and dialogue between ethnographers and designers to facilitate the transition of understanding into design. This could be because dialogue is seen to facilitate the intricacies and finesses of the interaction required, and is perceived to be all that is needed. But one would also expect greater exploration and discussion of working spaces, processes or sets of activities, representations, analytic devices and communication tools. Interestingly, Neal, who speaks more form a design point of view, recognises the need to take research one step further and to develop visualization techniques. I believe this lack of researched best practice has an impact on the effectiveness of the transition between understanding and design, and requires greater exploration and discussion in our community. I will focus in this paper on one particular area, the lack of clear process, though its attendant practices impact upon related areas. I discuss three ways I believe a lack of clear process impacts on the transition.

Firstly, the forms of communication currently used are limited. The final outcome of ethnography is a form of reportage in which considerable attention is paid to its rhetorical form and construction. The reportage is commonly a "thick description" which is not intended to be easily accessible to designers and does not endeavour to identify the key areas of understanding that would guide strategic action. Dialogue creates a tendency to sensitize a designer to a setting but does not build on the analysis developed in the reportage.

Secondly, concepts seem to be developed in an ad hoc fashion. This creates a tendency to pursue ideas as they arise and develop point solutions, rather than remain open and explore the design space more broadly. Other factors often need to be considered that influence the design space. By moving directly to point solutions, priorities cannot be set or the impact of specific solutions assessed.

Thirdly, there are many people involved in the development of products and services that need to have a relevant understanding conveyed to them in order that they can plan or build or sell the product or service as intended. The ethnographic reportage is not generally recognized as easily accessible and so the tendency is for the understanding to become dissipated or misconstrued in dialogue from one person to another as new groups of people become involved in the development process.

I believe we need to extend ethnographic analysis and develop a representation that more tightly couples ethnography and design. This would create something tangible, which could guide the creative process and take the understanding forward into the development process. Representations already exist to guide the design and development process, such as user profiles or personas, and scenarios, but these do not sufficiently represent the

understanding of the setting. We need a different representation that captures the relevant aspects of the ethnographic research.

Such a representation has been developed and is known as an **experience model.** It is a form of experience framework described earlier and shown in figure 1. It was used extensively at E-lab in the mid-90s and then Sapient, but other Chicago research and innovation agencies created similar forms. Very little is published about experience models, an exception being Blomberg et al. (2003). I could speculate this is because of its value and longevity to client organisations and therefore case studies remain confidential. It could also be that experience models take time to develop, over and above drawing out key themes, and it is hard to gain that additional time in praxis. It also requires the contribution of a multi-disciplinary team, which is rarely possible or recognised in academic environments.

I believe that taking analysis to the next stage and developing an experience model will make ethnography's role in informing design more effective. It would also lead to a process of people-driven innovation. In the next section, I describe the qualities of an experience model and subsequently give examples of its use.

The Experience Model

Experience models are visual representations depicting key analytic relationships of the underlying behavioural structure of the organization on of an experience for the people involved. Their purpose is to distil the important aspects of behaviour in a form that aids the development of concepts, prioritises and evaluates design directions, and acts as a shared reference tool for a team of researchers and designers. Rick Robinson, a co-founder of E-lab, advises that experience models should be simple enough to draw on a whiteboard in a few seconds, and use language that is memorable; simple enough that elaborate explanations are not required. An experience model not only tells a story, it is explanatory and developed in a way that has implications for strategic action.

An experience model is the result of three main activities. Firstly, a rich set of data of an insider's view of the area under inquiry is collected, in other words, solid ethnographic research data. Secondly, the data is analysed so that patterns of behaviour are identified and clear themes emerge from the fieldwork. It is important to consider different types of categories, such as, categories of users, categories of objects, categories of goals, and categories of strategies. The analysis is phenomenological in character. Thirdly, the phenomena are reduced to their essential components and structured into a narrative representation that can be visually depicted. The final representation is known as the experience model. These activities overlap, each activity builds on the one before it, and each activity is highly iterative. An experience model is the result of additional analysis to the traditional phenomenological analysis that involves conceptualisation.

The form an experience model takes varies with the aim of the research and the topic. However, commonly it consists of a set of behavioural states that are either connected by time, in which case, they represent an experiential process, or are related by an attribute of the collection, such as life stage or attitudinal perspective. An experience model can address individual experience as well as the dynamics of group behaviour. It can be of varying levels of generality, complexity and scope.

Developing experience models was an important activity carried out at E-lab to aid the transformation between research and design. Experience models were used to identify gaps in an experience for which there could be an opportunity for a design solution. They were often developed further into an opportunity map, another form of experience framework. An opportunity map is a representation that identifies the intersection or application of an experience model to existing and potential products. Experience models were used by design teams to validate design ideas and directions. At Sapient, they were used to inform business and brand strategy as well as technology and artefact design.

Experience models tend to be used by clients over long periods of time; a major household cleaning company still used their model seven years later, and BMW Designworks still refer in the DTI mission report (2005) to a model that E-lab developed for them some 5 years earlier.

Experience models have three key benefits. Firstly, the collaborative construction of an experience model facilitates the development of a shared, principled understanding of human behaviour and experience for the research and design team. By representing behaviour visually, the model becomes a communication device that makes tacit ideas and issues visible. This aids further analysis as entities and their relationships are discussed and developed, and the representation iterated. In practice, an experience model is used as an analytic device to facilitate the transition between ethnographic research and design.

Secondly, though an experience model is a descriptive representation of behaviour, it can be used as a generative tool to identify opportunities. E-lab used an experience model to identify gaps in an experience and thereby opportunities for design solutions. Instrata has developed techniques to identify additional opportunities and frame a design space. By developing a structured set of opportunities, possible design solutions can be prioritized by a range of stakeholders, and thereby a variety of issues considered that will impact on their ultimate success. Using experience models as generative devices allows organisations to adopt a people-driven approach to innovation.

Thirdly, an experience model becomes a shared reference point that goes beyond use by the initial creative team and is accessible by other groups in the development and marketing process. The model or representation can be used as an everyday, tangible reminder by other stakeholders, as personas are used in some organisations today.

The limitations of experience models are unknown, but the following questions could begin to frame a research agenda:

- What are aspects of behaviour that cannot be modeled or are beyond the scope of what a model can represent?
- In reducing the phenomena to their essential components, how do we encompass and represent critical influences that we have left aside?
- In terms of an experience model being a reference point beyond the initial creative team, how is the model best communicated?

In the next section, I summarise a few examples of models that are available in the public domain and one we developed at Instrata.

Examples of Experience Models

Blomberg et al. (2003) presents a model that was developed for a financial services company serving individual investors. The company aimed to develop web applications that would facilitate customers' active engagement in the investment process with particular financial instruments. A model was developed that illustrated the distinctions people make between real, play and foundational money, and people were found to be more fully engaged in the investment process when they consider their money real. The model led to the identification of numerous ideas of playful learning to draw people into the financial investment process, rather than providing them with a wealth of information.

Blomberg et al. (2003) describe another project where the aim to develop an electronic medical record system to allow people to view their records and potentially take a more proactive approach to their healthcare. A number of models were developed, such as one that described how individuals in the process of adopting an active/ proactive stance in relation to health issues, move through varying stages of readiness. A more comprehensive model highlighted ways in which various factors interact in influencing a person to take action to address a health issue and mapped the role of various health care related activities (e.g. monitoring, motivating, learning, sharing, build rapport) in various stages of readiness.

Jones (2005) reports on a study of grass root campaigners for the BBC that developed a campaign process model. The model identifies four stages in the development of a campaign. It emerged that the majority of the work in a campaign is accomplished during "unsung moments" rather than manning the barricades, and campaigning is more about elective sociality rather than an extension of the political. As a result, the BBC iCan Web site that was built to support grass roots campaigning provided additional support for social interaction amongst groups.

Beers and Whitney (2006) present a study that focused on customers' financial management behaviours. They found that people did not budget and that most people did

not particularly enjoy managing their money. The managing finances experience model comprises three intersecting states and related states: react, engage and actualise. They found the key was not to attempt to convert customers into budgeters or more detail oriented bean counters, but rather to empower them by helping them consider three aspects:

- Know what they had in terms of types of accounts and their balances
- Know what they need from a task perspective or from a life
- Know what they need to do, by providing easy-to-use online functionality, as well as relevant and helpful advice.

Instrata carried out a project whose aim was to identify concepts that would facilitate people's ability to learn to use features and services available on mobile handsets. We developed an experience model that illustrated stages of learning that included playful exploration, making it their own, situated learning and reaching beyond. We used the model to provide a framework of opportunities and identified associated concepts. The concepts were prioritised and a selection taken forward into working prototypes for evaluation.

Reflections on the Praxis of Ethnography and Design

In this paper, I have outlined the existing roles of ethnography in design. I have explored ways that ethnographic research is used in design that identified there is no researched best practice, other than the strong recommendation for collaboration and dialogue between researchers and designers. I have illustrated how a current lack of process in particular, impacts the effectiveness of transitioning between ethnographic research and design, by the ad hoc development of solutions and the limited forms of communication available to the initial creative teams and to those stakeholders involved later in the development of solutions.

I believe ethnography could play a more effective role in design if we were to extend ethnographic research analysis and develop experience models. Experience models are one example of highly successful representations that offer an analytical device, a generative tool and a shared reference point. I am concerned that if we as practitioners do not adopt such representations and thus make our findings more actionable, then ethnography will become restricted to two roles: developing sensitizing concepts, which will probably carried out in academia, and context setting, which will be seen as sufficient. This appears to be the current trend.

I think there are two related areas of research. Firstly, we do not know the limitations of experience models and how they could be improved. Secondly, I believe there is more to the transitioning between understanding and design than using experience models and we need to articulate a best practice. For example, what are the work environments that are best suited to transitioning and are there other analytic devices and communications

tools we could use? By exploring this area, I believe we will make ethnographic research more effective at "informing design".

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Power Point and the Crafting of Social Data

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In this paper I suggest that we should take a closer look at how we use PowerPoint. Authoring and presenting via PowerPoint is an invisible yet pervasive part of the work involved in corporate ethnography. Rather than being a pointer to a text elsewhere PowerPoint both produces the evidence of having done the ethnographic work as well as being expected to constitute the ethnographic analysis. The challenge of such software is not that it offers the wrong cognitive style, but that presentations are 'thick' social events, rather than 'thin' devices for knowledge transfer. Drawing on recent writing in Science and Technology Studies, these thick events can be thought of as continually creating hybrids or co(a)gents. In order to maintain a critical and reflexive practice we need to develop ways of keeping open the relationship between the researcher and the PowerPoint, such as leaving traces of our own relationship to the participants within the slides, or experimenting with different kinds of time-based media.

Introduction: Alignment and Ambivalence

In the light of the relentless pervasiveness of Microsoft PowerPoint in many contemporary organisations, we might be tempted to avoid giving this software package any more attention than is necessary to deliver our presentations. Despite debates about genre (Yates & Orlikowski, forthcoming), its visuality (Crang, 2003; Matlass, 2003; Rose 2004) and its cognitive style (Tufte, 2006), PowerPoint is hardly a seductive subject for social research. Yet the fact that such ambivalence about PowerPoint appears to be rife amongst EPIC's communities of practice is this paper's starting point. In feminist geography, Liz Bondi has argued that we should explicitly focus on such sites in order to develop a 'politics of ambivalence' (2004:5). She explains "such a politics is not about 'sitting on a fence', but about creating spaces in which tensions, contradictions and paradoxes can be negotiated fruitfully and dynamically" (p5). In doing EPIC work, whatever our organisational location, many of us have found ourselves in contradictory positions, in relation to our discipline, our politics or our collaborators. PowerPoint is only one site of ambivalence. Yet if we look at the writings of researchers who use other kinds of visual representations in their work, more analytically productive uses of ambivalent alignments are suggested.

Those who study collections of visual artifacts in archives have written about the kinds of identification that a researcher may develop with the image or the process of researching images (Pollock, 1993; Rose, 2000). Immersed in her work using historical photographs, Gillian Rose writes of the way her objects of attention, photographs taken by a wealthy Victorian woman, became pleasurable companions to her thinking and writing. The photographs become a means of introspection, even reverie.

There were three postcards facing the desk in my study. They were stuck in the frame of the window I stared through when I was thinking while writing; I'd look across them, thinking of words. They pictured Lady Hawarden's daughters in elaborate dresses, stilling or standing on bare floors, framing a mirror or next to tall French windows. I had them because they were beautiful and because, with their women placed by mirrors and windows, they reflected to me what I was doing, myself also next to a window. They made me want to write beautifully, with clarity and lucidity, my writing next to my window mimicking the beauty inscribed by the light from their windows and mirrors (2000:562)

Rose speaks of the photographs, largely of Lady Hawarden herself and her daughters, as "part of my self…they gave shape to a desire I was struggling to write, a desire not entirely reducible to academic demands, a shape that actively helped me" (ibid:564). Yet as she uncovers photographs of "governesses, a nurse, estate workers" (ibid:568), Rose becomes troubled. She worries "They look as if they are submitting rather than engaging with their employer's camera" (ibid:568). The relationship between researcher and photograph becomes transformed: "Their effect on me – to mark gendered class difference – disrupted my alignment with the photographs. The postcards are no longer in my study" (ibid:568).

For Rose the shifts in alignment with her objects of investigation – both in her own study and in the Victoria and Albert Museum's Print Room where she primarily encounters them - lead her to examine the complexities of observation and analysis of this kind of material. She renders problematic the seemingly straightforward and stable relationship between the researcher and the photograph. This is a useful epistemological move, but perhaps more difficult when the visual artifact does not appear to possess the potential for such reverie.

In comparison to a black and white print, with "odd blotches, swirls of chemicals, hairs, fingerprints, over- or under-exposure" (ibid:562) PowerPoint appears to lack any surface traces of authorship with which to engage. The tactility and fragility of handling, part of the process integral to making relationship with old photographic prints, is seemingly absent. It is hardly surprising that social researchers tend to express either anxiety or alienation around the use of PowerPoint. As one cultural geographer, used to presenting slides alongside overheads, alerts us:

the rising hegemony (and I am tempted to say, epistemological monopoly) of Microsoft's PowerPoint reinforces the interchangeability of content within the single (re)presentational system…by and large, what happens is that a hierarchically ordered series of themes appear (even if they fly in from odd angles), no longer on a parallel screen from illustrations but in a sequence on the same screen – the singular, focal point of all attention (Crang, 2003: 239)

In this paper I argue that we need to reconsider the relationship between the researcher and the PowerPoint precisely because of such feelings of ambivalence, anxiety and alienation. I've heard such views both in interviews with practitioners and corridor talk,

voiced not only by EPIC researchers but colleagues in academic settings. Here, PowerPoint may be resisted because it conjures up 'business presentations'.

> *My own experience of the increasingly common Microsoft PowerPoint is limited to watching, due to lack of technical will and a suspicion of something so associated with corporate life. If it is so good for business presentations, should we not be wary about the packaging of knowledge entailed?* (Matless, 2003: 225)

Matless's comment reveals how PowerPoint has become a symbol of the 'corporate life' and potentially a marker of what I consider is, for EPIC practitioners, the troubled (and troubling) opposition of 'us' and 'them' (Wakeford, 2005). Interviewing colleagues who use PowerPoint in corporate settings over the last 3 months it has become clear that although this software is now an integral part of presentations of ethnographic work, researchers rarely think it is the ideal format for their output. Yet corporations expect all kinds of knowledge generated within the organisation to be transmitted via PowerPoint or similar slide-based software, leaving many such researchers unable to experiment with other presentation formats.

PowerPoint is a normative and normalising part of the typical corporate ethnographer's work life, but feeling forced to use PowerPoint can lead to researchers feeling frustrated and alienated from what they end up producing. At last year's EPIC Brinda Dalal and Patricia Wall indicated the problems of deliverables "which take on a life of their own when, for instance, a senior vice president emails our reports to others who are less aware of and less interested in our sub-text" (2005:109). PowerPoint appears to be the opposite of Dalal and Wall's "inalienable representations": their graphics toolkit which they use explicitly to keep the analytic grounding of their work visible.

I suggest that part of tackling such alienation is to understand how it operates, and how it might be unsettled. Therefore this paper seeks to examine the ways PowerPoint is used in the EPIC community and offer a few suggestions for how we might develop a less alienated process of presenting work, bearing in mind the limitations of the current software and business infrastructures. My argument builds on Dalal and Wall's paper in which they emphasized the importance of thinking about the role of representations in corporate ethnography, and also reminded us that arguments about the risks of normative and static representations have been a strong theme amongst researchers involved in Computer Supported Co-operative Work (CSCW) (Dalal & Wall, 2005). My paper also echoes several of last year's EPIC contributions (e.g. Blomberg, 2005; Cohen, 2005; Plowman, 2005) and draws on the analytic frameworks of Science and Technology Studies (STS). Specifically I will return to the idea of the hybrid that Jeanette Blomberg raised as a useful way to move on from the tendency to treat the social and material as discrete entities that need to be joined together. Reconceptualising PowerPoint as part of the creation of hybrids within EPIC work, rather than as the representation of what has already occurred, offers us opportunities to rethink the range of interventions that are possible within the infrastructures that often seem so constraining.

This paper is a result of both my own immersion in collaborations and grants with corporate ethnographers, and also interviews with colleagues outside academic settings on how social research is used in the development of new technologies. Kris Cohen has outlined the impact of being involved in academic-industry projects for theoretical frameworks about 'the user' (Cohen, 2005). Following on from the work which he described which we carried out at INCITE at the University of Surrey, this paper reports on my initial thinking at the beginning of a three year study funded by the Economic and Social Research Council (ESRC) which seeks to look at the ways in which social research is 'translated' into design and development (see www.studioincite.com for more details). In this project I will both look back at INCITE's work, as well as trying to develop analytic frameworks beyond the idea of 'translation' of knowledge or the ever dominant idea of 'knowledge transfer'. The aim is to contribute both to communities such as EPIC and also the discipline of Science and Technology Studies via publications, presentations and the more materially innovative (at least for sociology) means of an exhibition.

PowerPoint as Invisible Ethnographic Work

How does PowerPoint function in the day-to-day work of EPIC communities of practice? When used to communicate corporate ethnography, PowerPoint is a complicated visual and material object. Although PowerPoint in corporate ethnography has the possibility of flexibility, it tends to have been normalised into playing a specific role, one that involves what I term 'invisible ethnographic work'.

At academic conferences PowerPoint is expected to correspond to a paper or report of research results. The expectation of a text or further exegesis lies behind the presentation, even if the audience may never see more than the set of slides narrated by the author. Typically, such PowerPoint slides become a representation of a text that does or will exist elsewhere, in a journal or as a report. By contrast evidence from our INCITE collaborations, corroborated by interviews with industry researchers, indicates that in many commercial contexts both within consultancy and research groups, the PowerPoint presentation frequently constitutes (functions as) the final output. It ***becomes*** the ethnography. It ***does*** ethnographic work. The PowerPoint presentation both produces the evidence of having done the ethnographic work as well as forming the ethnographic analysis. Furthermore, the set of slides become seen as an object that can be transmitted without being attached to the context of their production.

This state of affairs is so normalised that, despite some general advice on giving good presentations about user experience research (e.g. Kuniavsky, 2005), this crucial role of PowerPoint presentations is completely absent the current published descriptions of the work done by EPIC practitioners. For example two recent articles "An Ethnographic Approach to Design" (Blomberg et al. , 2003) and "Ethnographies in the Front End: Designing for Enhanced Customer Experiences" (Rosenthal & Capper, 2006) present overviews of the use of ethnographic methods and how they can be communicated and

represented within the design process. Both articles indicate the importance of the visual means of communication. Blomberg et al. offer an overview of techniques that include graphical representations such as experience models, opportunity maps, profiles, scenarios, mock-ups and prototypes. For Rosenthal and Capper the emphasis is the power of visuality. In a section enjoining us to "Capture relevant visual accounts" they say:

> *The desire is to be able to show the product design team key elements of product use or environment in the field. To some extent this is simply a more robust record than simply telling those who were not in the field what was observed. Designers will be able to work with ethnographic insights more effectively if they able to see what was seen in the field. Furthermore, key decision makers who many resist acting on expressed insight if it conflicts with their own perception may be easier to persuade with the aid of such visual accounts* (2006: 235)

Even though Rosenthal and Capper emphasize designers must 'see what was seen' and that it may be 'easier to persuade' with visual accounts, how such visual accounts are actually constructed, edited or enacted is not explained. In their discussion of profiles, Blomberg et al. recognise the value of multiple modes of engagement:

> *The value of profiles also is enhanced by making them visible and dynamically present for development teams (e.g. profile posters displayed in project rooms, multimedia representations that are reviewed with the development teams, role-playing scenarios, and walk-throughs based on profiles, etc)…Such profiles may take many forms, including narrative descriptions, matrices/tables, integrated still images, and video snippets* (2003: 977)

Yet presentation software is not mentioned in either article. My collaborations over the last five years suggest that PowerPoint always plays a major part in the way such engagements take place. For example in an INCITE project looking at public internet access, sponsored by Sapient, Kris Cohen worked with designer Delilah Zak to create an experience model (for outline of experience models and their history see Blomberg et al, 2003). Although this was inserted into a printed report, it received greater exposure in a work session with the sponsor's designers when it was part of a PowerPoint presentation. An interview that I conducted with one of the designers after this session revealed that he did not single out the experience model, but rather commented that the presentation had functioned as a 'soundtrack' to his work. The metaphor of a 'soundtrack' is very different from that suggested by 'knowledge transfer'. Yet it is difficult to speak about the functions (both capacities and limitations) of PowerPoint if their role is invisible.

I should emphasize that I am not interested in uncovering the workings of PowerPoint because it holds the key to some better formalized set of methods for doing EPIC work. Alongside Tim Plowman, I think there are plenty of discussions of methods in corporate ethnography (Plowman, 2005). Rather, we need to discuss our methodologies and epistemologies (Wakeford, 2005). At a time when many researchers have to justify why an ethnographic approach adds any business value, or be corralled into the language of 'return on investment' (Dalal & Wall , 2005), it seems to me to be vital to talk about all the kinds of work, however obvious and mundane, which constitute EPIC practices. All these practices

are part of the analytic grounding which Francoise Brun-Cottan reminds us should be kept visible (2004). Once we begin talking about this invisible work we can see that PowerPoint is not merely a representation tool, but rather may have particular functions in relation to participation and, more specifically, the ethnographic enterprise itself.

PowerPoint can be thought of as saturated by invisible ethnographic work. The slide set becomes an object that not only constitutes the ethnographic analysis but also acts as a way to enrol (or exclude) others in wider collaborations around the research. In her ethnography of design engineers, Kathryn Henderson talks of design sketches as 'conscription devices'. As one form of visual object they "not only shape the final products … but also influence the structure of the work and who may participate in it" (1999:27). Just as sketches become a way to include people and ideas, so do PowerPoint. Of course there are other forms through which communication of ethnographic results takes place. In our collaborations often these have been informal (such as chatting in the corridor, telephone conversations). Nevertheless even in informal communications, PowerPoint is often requested as the real object of value. The set of slides are what are assumed to be transferable, even when they have been constructed primarily for on-screen show to be supplemented by face-to-face interaction. Despite our potential ambivalences, it is this function of PowerPoint – as a conscription device – that means we should spend more time, rather than less, thinking about how we create slides.

From Cognitive Styles to Thick PowerPoint Events

One problem of thinking about a PowerPoint slide set as a unitary object is that it tends to corroborate a view that this discrete set of visuals can be improved with on-screen editing to ensure accurate representations. There is now a burgeoning industry of how to better, more engaging PowerPoint (e.g. Cliff Atkinson's *Beyond Bullet Points: Using Microsoft PowerPoint to Create Presentations that Inform, Motivate and Inspire*). An early and continual critic is Edward Tufte whose pamphlet "The Cognitive Style of PowerPoint" (2nd ed, 2006) is polemically subtitled "Pitching Out Corrupts Within". For Tufte, PowerPoint is almost always the wrong way – sometimes, citing NASA disasters, dangerously so - to present complicated information. At the heart of his concern is that evidence should be presented so it can be read accurately, and that on the contrary the hierarchical defaults of the PowerPoint template encourage a cognitive style which is convenient to the presenter but ignores the needs of both the content and the audience. The costs include:

> *foreshortening of evidence and thought, low spatial resolution, an intensely hierarchical single-path structure as a model for organising every type of content, breaking up narratives and data into slides and minimal fragments, rapid temporal sequencing of thin information rather than focused spatial analysis…[etc]* (2006:4)

But Tufte, in his distress about the effects of incorrect presentation of evidence, fails to acknowledge the social nature of PowerPoint slides and hence their flexibility. In his

discussion PowerPoint slides are thin graphical objects that appear to float free of any sets of social relationships. This is perhaps unsurprising for an author who has always been concerned with statistical graphics. However this perspective reflects a wider trend that treats PowerPoint as a mechanism that holds out the promise of immediate and transparent knowledge transfer. Comments such as, "The more elaborate the hierarchy, the greater the loss of explanatory resolution" (Tufte, 2006, p16) reinforce the view that the information needs only to be structured or presented in a different way – he provides a table of diseases from 1662 (ibid, 25) as exemplary – to achieve a more adequate means of representation. In sum, for Tufte, PowerPoint dilemmas are cognitive problems, to be fixed by better alignment of the slides with our cognitive capacities, which are naturalised and ahistorical.

By contrast, for corporate ethnography researchers, PowerPoint slides appear to be 'thick' rather than 'thin' phenomena, to borrow some familiar anthropological vocabulary. In the anthropological sense, corporate ethnography PowerPoint become thick because not only are they context-sensitive and locally informed, but they also often require a huge amount of descriptive work. As this description, often ad hoc, is carried out during the presentation, PowerPoint sets are not only singular objects but also thick events.

The contextual and local 'thickness' can be illustrated by describing my own experience –my interviews suggest that it is not atypical – of presenting to a small group within a large corporation a set of slides on some initial findings from fieldwork with a set of European new media artists. This presentation occurred in windowless room with a data projector, set on a table around which 12 people were gathered. Others were able to join by telephone conference, each joiner signaled by a beep on the telephone speaker. Unlike presentations at a conventional conference, or perhaps in a university department, audience members interrupted freely as I progressed through my slides, meaning I twice flicked back and forth through my slides to try to respond to a question which could be addressed by a slide further forward in my set, or by referring back to an earlier slide. Several of the audience had brought laptops and typed into them during my presentation. They were able to connect to the internet from the room. The audience came and went freely, both from the room and the telephone conferencing system (their departure signaled by two beeps).

Although for Tufte the PowerPoint slide set is the focus of attention, I was constantly aware that the presentation was actually much more about generating and sustaining engagement and engrossment (terms associated with Goffman's analysis of interaction) by drawing on the mutability of the PowerPoint as an object which was performed rather than just transmitted. Blomberg points out that the Project Rooms used by E-Lab and then Sapient were flexible arrangements of material goods, human labor and social relations (2003:69). In the same way my PowerPoint presentation became a flexible arrangement of these same factors. The material goods included my laptop - which went to sleep twice during questions, provoking me to pay attention to it and break off my train of thought – as well as the laptops of the audience, one of which was used to Google the website of an institution which I was describing during the talk. The material aspect of the PowerPoint also included European magazines aimed at the group of users I had been

interviewing, as well as other visual printed material that was passed around while I was talking. The human labor did not just include my work, but incorporated a lively dialogue throughout my talk from audience members who came from social science, humanities and engineering. When I subsequently checked my email I realised by looking at the time on the message that one of those with the laptop open during my talk had emailed me during the event suggesting that I interview her about the topic under discussion. The fact that audience members in this technology setting frequently email and instant message during presentation was highlighted when as I was leaving the room another individual approached me and said "Don't worry, I was making notes on your talk. I wasn't doing my email!". Her desire to reassure me about her attention emerged in the context of the relationships generated through long-term collaborations with several of the audience, but also reveals normative behaviour.

Another factor had a large impact on my experience in this instance. For this presentation I had been asked to prepare a set of slides that could be circulated in advance for those not able to make the meeting. Some of these individuals had become part of the meeting by phone conference call, although others could download the slides without being part of the gathering. This requirement required me to create two PowerPoint sets, as the subjects of some of my photos had asked that their pictures not be circulated electronically, although they had given permission for them to be included in a presentation. Therefore the audience in the same room as myself could see the photos, but I also had to describe the missing photos to those who were on the telephone link, thus drawing attention to this other form of participation.

These factors are a reminder that in the actual day to day use of PowerPoint to report research results involves much more than the layout of each slide. Such events are profoundly social and often involve bodily gestures and heightened attention to physical elements of the performance. One of my industry colleagues told me that when talking about fieldwork she was expected to 'channel the user'. I've highlighted above some factors of the interactional context of my presentation, including potentially competing elements. Nonetheless I do not want to suggest that this context can be completed separated from the slide content. In interviewing corporate researchers about their experiences of PowerPoint, many spoke of the ways in which it was the nature of the ethnographic content itself that led them to devise specialized strategies for using PowerPoint. This points to the specificity of the ways in which PowerPoint has become normalised within corporate ethnography. In formatting terms this tends to be a combination of photographs taken during fieldwork, and text captions or bullet points relating to these photos. Many such slides were shown at last year's EPIC conference. However in contrast to Rosenthal and Capper's suggestion that it is the visual accounts which persuade non-fieldworkers of the veracity of the research, in the day to day practice of corporate ethnography the power of the visual is enacted via generating narratives of 'being there' which have many precedents in anthropology. In other words, PowerPoint can only function as ethnographic because of the ways in which the corporate ethnographer puts themselves in between the slide (e.g. photo + text) and the audience and in this way makes the PowerPoint slides into evidence.

There is now a longstanding concern within anthropology about how the actuality of the ethnographic endeavour is rendered via writing. Clifford Geertz points out that this has nothing to do with theoretical framing. Rather it is about persuading the reader that something has happened "offstage". He states:

> *The ability of anthropologists to get us to take what they say seriously has less to do with either a factual look or an air of conceptual elegance than it has with their capacity to convince us that what they say is a result of their having actually penetrated (or if you prefer, having been penetrated by) another form of life, of having, one way or another, truly "been there". And that, persuading us that this offstage miracle has occurred, is where the writing comes in.* (Geertz, 1988: 4)

Accordingly the use of PowerPoint becomes another way means by which the ethnographic miracle can be shown to have happened. Corporate ethnography demonstrates that this does not depend on writing. Rather this occurs in the whole PowerPoint event that typically incorporates fieldwork anecdotes that go beyond what is seen on the data projector. There are well known writing styles and agendas in ethnographic monographs a sample of which Geertz characterises as "Malinowskian experience-seeking, Levi-Straussian rage for order, Benedictine cultural irony, or Evans-Pritchardish cultural reassurance" (p143). My suspicion is that already there is a huge variety of ways in which Geertz's "rendering of the actual" takes place in corporate ethnography, but that they all share this characteristic - often implicitly - of dealing with the relationship between author and content. This is perhaps why there is very little use of stock photography.

Although PowerPoint slide sets in corporate ethnography are rarely comprised only of photos (a noticeable exception being slide sets devised by two of my interviewees which were intended to be shocking precisely because they had no text attached and therefore heightened the necessity for interpretation), I think the history of photography provides useful parallels in considering how PowerPoint events become used as evidence. John Tagg reminds us that "The notion of evidentiality, on which instrumental photographs depended was not already and unproblematically in place; it had to be produced and institutionally sanctioned." (1991:55). Historically, the expectation of photography as universal and a suitable means for neutral seeing, and therefore as a tool for science, was not an inevitable development. It was the product of discursive struggle.

In corporate ethnography this struggle is still underway. There are instances where attempts are being made to resist PowerPoint or unsettle its normalising force. One of the industry researchers to whom I spoke had several strategies to avoid the re-use of her photos in what she disparagingly called 'random PowerPoint' generated by others. This is a common problem reported by commercial fieldworkers. One of her strategies was to try to generate a set of photos that she thought would be difficult to interpret without explanations, rather than to circulate a PowerPoint set of results. Although such tactics may succeed in subverting individual demands, I suggest that a more effective way of continuing to keep a discursive struggle ongoing is to recognise and use a framework generated in STS that

examines the ways in which hybrids are created and dissembled. If thick PowerPoint events can themselves be seen as a process of mingling different kinds of actors and properties, perhaps these properties could be highlighted rather than obscured in our use of PowerPoint itself.

PowerPoint and Hybridity

Drawing on the writings of Latour and Haraway, Mike Michael has examined the notion of hybridity in terms of the generation of fieldwork data, with particular attention to the processes by which sociological data is produced in a qualitative interview (Michael, 2004). He recognises the hybrid as a way to theorize the intermingling of human and non-humans, and in common with other STS scholars is keen to point out the contemporary proliferation of hybrids that cross the nature-society divide such as frozen embryos or gene synthesizers (2004: 9). Although debunking of the nature-society dualism via the identification of hybrids seems far removed from the discussion of PowerPoint, Michael claims that hybrids can be recognised in numerous kinds of interactions and relationships, even in mundane fieldwork encounters. He is interested in both identifying and constructing heterogeneous entities that will function as ways to think about everyday routines. To do this he has developed the idea of the 'co(a)gent' (2000), an analytic formulation which enables us to see the complex heterogeneous interactions that make up social ordering processes. He explains:

> *Co(a)gents thus serve as heuristic probes with which to examine and explicate relations, connections and interactions that are barely apparent but nevertheless serve in the (de)structuring of everyday routines. In this respect the value of particular co(a)gents rests not so much on their empirical 'accuracy' as on their capacity to illuminate otherwise hidden processes* (2004:10)

Michael intends that the terms co(a)gent and co(a)gency signal both the cogency of a hybrid, which he describes as "its convincing power and its unitariness", and also show that agency is distributed. In other words hybrids involve co-agents. The methodological imperative is to 'follow the co(a)gent' and at the same time recognise it is an analytic fabrication. As an example Michael suggests the 'couch potato' a co(a)gent through which "it is possible to interconnect…literatures on govermentality, consumption, body, technology, design, emotions, gender, globalization" (2004:10).

Michael's recent work focuses on the social production of social data. He relates the experience of a 'disastrous interview episode' in order to show the way disruption to smooth social routines which are assumed to take place during interviewing highlights the normally obscured nonhuman elements. His claim is that in order to make the production of social data possible nonhumans are 'disciplined' even though they are contributors to this production all along. The interview in question was conducted as part of a research project on people's understanding of radiation. As the interview began, the respondent's dog sat on the interviewer's feet. Soon it was difficult to divert the interviewee from talking about her new job at a fast food restaurant, and a cat appeared who was intent on playing with the tape

recorder. In a passage that is painfully familiar to anyone who has done extensive interviewing of this kind, Michael recalls:

> *As the cat played with the recorder, it got further and further away from the interview, which was rapidly turning into a monologue about Burger King, a monologue which I could neither halt nor redirect, being too distracted by the disappearing tape recorder and the pit bull's liking for my feet.*
> (13).

The level of interruptions of nonhumans in this case seems extremely high. Yet Michael points out that in order to be seen to be gatherable, these relations – for example his relationship with the tape recorder, or the cat dragging it away – must be screened out. It is this screening out which makes the data 'social'. He suggests we should think rather about the processes that led us to think that the tape recorder or the interviewer is a singular entity in the first place. The hybrid version might be the 'intercorder', a hybrid of the interviewer and tape recorder.

If the 'intercorder' hybrid is a useful heuristic probe for the interview situation, it is possible to see that the PowerPoint event, incorporating the speaker, the slides, the audience and the (technological and other) infrastructures, might also be seen to include hybrids that might be useful heuristic devices. From my example the most obvious of these would be the co(a)gent of the presenter plus the projected PowerPoint slides plus the presenter's laptop. Another might be the downloaded PowerPoint slides, the conference telephone speaker and the remote listener dialing in. I've not been able to arrive at any single word to sum up these hybrids, with all my imagined possibilities sounding faintly ridiculous (Powerlapresent, etc.) The point, as Michael insists, is that we can generate numerous possibilities of hybrids. Yet some hybrids more than others will help to illuminate potentially obscure social ordering and also enable novel connections between discourses. Identifying hybrids when dealing with interactions around social research means that we might begin to think that the researcher speaks 'with', 'through" or 'as' the identified co-agents. In so doing the status of data becomes more relational (2004:20). This seems to fit with accounts of how PowerPoint events unfold in practice, although it does not in itself point to means by which we can resist their normalising tendencies.

Conclusion: The Crafting of Social Data

Gillian Rose's commentary on the photos taken by Lady Harwarden revealed the transformation of her objects of study from postcards in which she found inspiration to pictures which were fundamentally troubling in terms of what they suggested about the dynamics of their production. Could we think about shifts in our own orientation to PowerPoint? I've suggested that PowerPoint slides are not merely visual objects, but rather should be seen as part of thick PowerPoint events, which themselves could be seen as hybrid entities. Nevertheless I think it would be naïve to propose that such reframing would fundamentally change our ambivalence about PowerPoint as a tool for corporate

ethnography. Rather, what I would like to put forward is the suggestion that we explicitly work within our ambivalent relationship to presentation software and use thick PowerPoint events to create hybrids that keep in focus the relationship between the researcher and the slides. Following Michael's claims about how information that enables data to be seen as social is screened out, these thick PowerPoint events might be explicitly worked on to leave in some of the messiness of the social. PowerPoint could involve the crafting of social data, a crafting that might leave traces of its own (our own) work.

How might this be done? Here are some tentative thoughts. Given the predominance of photos from fieldwork in corporate ethnography (see Anderson & Nafus, this volume), my first suggestion would be to think about transforming this photographic practice so that as fieldworkers we are present with our participants in our photos, and that these photos perhaps highlight something of the (multitude of dynamics) between researcher and participant. Do photos always need to be taken by us? Could they explicitly be discussed as representations of the participants during our encounters with them? Would these discussions themselves need in some way to be recorded or represented? Second, in order to put into question the standard use of digital photography and digital video, we could explore the use of other, older, materials and media production. Jay Hasbrook (2000) used both 16mm and Super8 film in his study of a rural gay community, a choice influenced by the desire to bring to the fore the issues of time and memory which he was discussing with his participants. Compared to the clean look of digital video, earlier film formats such as 16mm and Super8 often show scratches and tramlines. Even though video can appear to have been deteriorated through technical effects, these films appear rougher, their grainy texture is in stark contrast to the sleekness of video. Could such properties of these media be used to create different kind of hybrids? Might they be integrated into our thick PowerPoint events? Would there be risks in romanticizing the effects of filming certain participants in older formats? – after all, Margaret Mead used 16mm film as well as still photography in Bali. Third, and beyond a transformation of our image-led practices, perhaps we could begin to consider how text and writing within the thick PowerPoint event might be transformed. This is not a call for written reports or journal papers to necessarily part of the hybrid (although these forms do have their own advantages). Rather my suggestion is that we create texts that highlight questions about evidentiality, and therefore counter the idea of the unambiguous and straightforward truth of the bullet point or heading. The rise of blogs as a form of writing has enormous public visibility at the moment. Might blogs be used either alongside our PowerPoint or somehow embedded within them? Are there other forms of narrative or storytelling that highlight the problematics at the heart of the ethnographic enterprise? (EPIC 2006 included Dori Tunstall's performance of a highly non-normative text, accompanied by soundtrack and video). Additionally we might think about foregrounding our own participation in the formation of PowerPoint, using techniques such as handwriting scanned into slides.

Although the bulk of this paper has examined the use of PowerPoint with reference to the theoretical literature, I have concluded with these suggestions that might be explored by EPIC interlocutors in a practical manner. In so doing I recognize that the

opportunities for keeping thick PowerPoint events as open, possible venues for such exploration may be extremely limited and sometimes impossible, particular in contractor/consultancy work where client templates may be forced upon the researcher. However I hope some EPIC practitioners will take up the challenge of creating new co(a)gents for PowerPoint, both as heuristic probes, and also as ways in which we can think more rather than less about our invisible work.

Notes

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Web resources

Further details of the larger project "Beyond Translation", funded by the Economic and
Social Research Council, are available at www.studioincite.com.

Skillful Strategy, Artful Navigation & Necessary Wrangling

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This paper addresses three main issues: the fixation on the individual in corporate research, the emic need to privilege and represent relationships driving the political and cultural economic lived experience and the pressing need to find useful, effective ways engage corporate structures that otherwise are impervious to "views of the collective". That is, we argue for a reframing of ethnographic work in industry (in some instances) from that of the individual to that of sufficiently contextually complete relationships people have with other people and institutions, especially when working with "emerging markets." We rely on data and sources from comparative ethnographic work over time in several countries to identify what we need to study and to suggest new, more powerful directions for our research. We also suggest implications for how to navigate within corporate structures in order to liberate ourselves and our work.

Introduction

> *"…this close touch of the fantastic element of hope for transformative knowledge and the severe check and stimulus of sustained critical enquiry are jointly the ground of any believable claim to objectivity or rationality not riddled with breath-taking denials and repressions."*[1]   Donna J. Haraway

The entrée of ethnographic field methods and critical anthropological theory into corporate America has forced our colleagues in marketing and product development to more carefully think about their customers, who they are, what they do (versus what they say they do) and how to connect with them, be it through products, services, or marketing. We have brought customers, users and consumers to life for corporations, for better or for worse.

In the following pages, we assume these benefits of our work and instead take a hard look at our limitations, particularly as we join corporations in seeking out new communities to translate into new markets. It is this effort to tackle the "emerging markets" that challenges our established ethnographic research habits as well as requires a change of heart on behalf of our employers and clients, the corporations.

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[1] Donna J. Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991): 185.

Reflective Analysis of Ethnography

To do so we must leave behind some of our most valued tools of the trade, especially the individual that haunts our "personas," user case studies, scenarios and day-in-the-life timelines. Instead, we must find other ways to bring to life the ***collective relational*** lives of our research participants and capture the frustratingly complex local economies of their values, rights, knowledge and obligations.

The second, and by far more challenging, step is to then translate this knowledge into terms deemed valuable and actionable by our colleagues. Here we must face head on the problems of how corporations value research, ethnographic or user research, market research and more. Like it or not, we must make our work actionable within this latter field of meanings. Here we feel the pressure to distill our work into terms that work within corporations, such as users, consumers, market segments, markets, price and more. Call it the benign oppression of even well-meaning organizations: the pressure to translate the cacophony of what we see and hear in the field into terms no longer our own.

In the following pages, we call for new methods of distilling our knowledge, not into the handy frameworks of individual consumers and users, but into "ecosystems," a term we use to characterize the relationships that define complex local economies of values, rights, knowledge and obligations. We argue for a distillation of local practices into appropriately but only sufficiently faithful representations of those we study. With these we aim to challenge the corporate pull towards market models of consumers as collections of individuals and instead guide our colleagues towards consumers as collections of relationships within collective economies and an understanding of corporate value in both their and our local ecosystems.

We rely on data and sources from comparative ethnographic work in several countries over a long period of time. We also suggest implications for how to navigate within corporate structures and liberate ourselves and our work. Finally, we suggest ways to join with the local populations, offering what we can, while enabling them.

Foundation

There is a history to our predilection towards individualist accounts of culture and community. Malinowski wrote that that the point of ethnography was "to grasp the native's point of view, his relation to life, to realize his vision of his world [sic]."[2] Gender implications aside, it is clear that Malinowski was not talking about a communally fraught and locally rich intersection of local political and cultural economies, just his world (and we can leave open the question of which "his" Malinowski saw most clearly).[3]

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[2] Spradley, 1979.

[3] Here we refer to the concept of political economy put forward by Karl Marx and revised by so many others as well as the concept of cultural economy put forward by Pierre Bourdieu. By including them both, we nod our head to Bourdieu who argued that it was not enough to look at the material means of production, but also the cultural means of social production. And that the two did not always so simply map onto each other. Pierre Bourdieu,

We suspect that it is obvious to the reader when we say that people live their lives in the context of other people, places and institutions. And yet, a closer look at our work in-house reveals that many of our representations have focused on "personas", on the "voice the customer", on "the user", on "the consumer" – that is, on the individual ideally, but not always, in his or her immediate world.

This is where we as researchers fail to support corporate research, design and strategy. We might consider the interactions, exchanges and relations that animate people's lives. But we fail to grasp these as situated experiences that necessarily breach and indeed call into question the usefulness of the category of the individual.[4]

This failure is compounded by the fact that almost none of the extant categories into which corporate research organizes people, places and things, e.g., market segments, offer satisfactory explanations of people's daily lives. For example, we see "poor" families (poor by our definition) in China purchasing plasma screen TVs and attribute this apparent contradiction to a desire for face or social status. We see an extended Turkish family in a tiny apartment with heat enough for only one room in winter with a *laptop* computer running video Skype so they can keep in touch with their family and we wonder about their priorities. We see small business proprietors in Bangalore purchase a computer then sell it when it proves not useful and wonder, what went wrong?

We contend that our research continues to pay lip-service to the "individual" to the exclusion and suppression of the "ecosystem" as defined by relationships. Yet, in our work around the world, we find this latter characterization a far more faithful representation of the population with whom we are working. In fact, the individual, a construct, emerges as secondary or peripheral if relevant at all.

The Allure of the Individual, Part 1

It is worthwhile to spend a few paragraphs looking at the kind of individuals corporations crave. To do so, we'll wander through a few examples to see how ethnographic and user data from two "emerging markets" – China and India – were read in-house and how profoundly easy it is to take the complexities of collective life and render it understandable and actionable by making it look like the familiar individual, in particular one who desires, purchases and consumes the products we produce.

Distinction: A Social Critique of the Judgment of Taste, trans. Richard Nice (Cambridge, MA: Harvard University Press, 1984).

[4] The concepts of situated knowledges (Donna Haraway), situated action (Susan Leigh-Star) and others refer to shifting the frame of reference from isolated people to practices/actions in context. They differ in terms of what kinds of contexts are to be considered. We are borrowing most from Haraway, who requires we understand how knowledge is both created in our own terms/contexts as well as in the terms/contexts of those we research, and activity theory, whereby the primary unit of analysis is not a person, but an activity. Leigh-Star borrows from the latter to describe her term, situated action.

Perhaps the most disconcerting aspect of our work is that we, as sociologists, anthropologists and psychologists, may find ourselves fascinated with the machinations of human desire and praxis, but what concerns our colleagues, and understandably so, is what will make these individuals buy, buy more and preferably buy higher margin products. Our contention is not the corporate compulsion to sell more. It is simply that the point of sale should not be seen as an individual at all, but a person or community enmeshed in local practices.

Let us unpack this a bit more. Below is an example of how the persistent momentum on the individual consumer can lead us astray.

In a study conducted late last year, a farmer in southern China was asked why he didn't want a PC. He answered, it is useless. So did most of his peers and fellow town residents. The research report concluded "The main barriers to PC ownership are knowledge of computers, price and the perception that PCs are useless." Back in the office, our colleagues followed up with the following question: what price would have changed the farmer's mind?

1 Farming family in southern China

Digging a tiny bit deeper into this report, we see that the blame for the lost sale fell not on the PC, but the farmer himself. He not only did not buy the PC, he did not even want to buy one. [He, of course, is a proxy for a collection of individual "he's".] So, the report concluded, what can we do to change his mind, increase his knowledge, perhaps raise his consciousness to the benefits of the PC? The assumption being that the PC was not going to change, but the farmer could, would, should. But, you see, we are not talking about the thinking individual in the Hegelian sense. We are talking about an end-user, a purchaser and a point of sale. This poor farmer failed on all three counts.

So, as a corporation, we cut him out of the picture. In the corporate lingo, this farmer fit into the market category of "non-owner, unafford and undesire." And he didn't get much more attention after that. Bye bye farmer in southern China. And his town, too. His town didn't have enough of the "non-owner, afford and desire" or even the wistful "non-owner, unafford but desire" to merit further attention.

There are several issues here; we mention a few relevant ones. First, the farmer was the default participant. Not the family, not the town, not the local political party. Second, corporately our response required the farmer to want the PC as an individual – "what can we do to change his mind". We failed even in post hoc conversations to consider other potential

collective or communal values to PC use and instead sifted through the data for the desiring individual. We missed the forest for the trees.

It is much easier when consumers' evaluations of products match those of the corporation. When they don't, we fall back on what is called attribution bias, a sociological term for blaming the individual for something we found wrong. Here was our third misstep. The PC was not to blame, nor the farmer; our frame of reference was and that stunted our ability to imagine what might, indeed, improve the life and livelihood of the farmer, his family and his community and, in the process, sell another PC.

Blaming communities for failing to purchase our products or doing so but remaining poor often drops them from the corporate radar screen and exacerbates the problem dubbed the "digital divide." The problem as we see it is not so much of have's versus have not's but a frame of reference that takes the individual consumer as the norm and therefore desired owner, consumer, the one who "has." Those who don't fit these parameters, in short non-individuals, fall out of the scope of corporate action.

The Allure of the Individual, Part 2

There's a second problem. Not only are corporations predisposed to the individual consumer, we are too. Dressed in the form of personas, case studies and more, individuals are a highly persuasive means of communicating what we see in the field.

Let's face it, we are valued as story tellers. We go out, we "research" (they don't know what this means), we come home with stories that move people. And ideally these stories do something productive for our colleagues and employers. To ensure our success, we "objectify" what we see in the field with our strongest tools to date – those that have been accepted – personas, day-in-the-life-of, user case studies, etc.

Figure 2 Entrepreneur in India

Let's look at a second example. In Aurangabang, Maharashtra, India, a man running the local agricultural supply shop recently returned from time spent in the US. Among other things, he brought with him a computer to use at his shop. In India, a nation of more than one billion people that is a net food exporter, agriculture is tightly monitored. Each month government agents come by to pick up the required forms, each dutifully filled out in pencil. To simplify the process, our entrepreneur computerized the form, filled it in and printed it out. It looked like the paper & pencil form, only typed and printed out. To his dismay, the government agent rejected his form as not being proper. Our entrepreneur sold his computer.

At first glance, we expected the entrepreneur to find a utility in the PC and its capabilities. But there was none. The computer's utility was not embodied by the entrepreneur and instead it was rejected by the ecosystem, one in which a highly bureaucratic and not unsuccessful agricultural industry wanted its information handwritten in pencil on paper – PC or no PC.

Here's a third example: in coastal Haining, Zhejiang, China, a middle-aged inventor bemoaned the demise of his metal parts factory. In an effort to expand his business beyond the local region, he had mailed brochures advertising his latest invention, cold-called potential buyers, even traveled to northeastern China to pick up a backstreet deal that soured his taste for the business.

3 Frustrated inventor in coastal China

Down the street, a young thirty-something businessman with a constantly ringing cell phone, two computers and an expanding metal parts business made the leap from a regional business to an international company, selling stamped metal candleholders and doorstops around the world. Our research team argued through the night – why was the young businessman successful and our mad inventor not? We debated their educational backgrounds, business experience, computer expertise and psychological makeup. We lost ourselves in the battle of two men, one who succeeded (thanks to alibaba.com, we decided) and another who did not, and forgot about the vibrant local economic and cultural environments that fed the successes and failures of those who lived there.

4 Young businessman in coastal China

As storytellers, it is easy to favor such characters as the wronged entrepreneur, the mad inventor, the successful young businessman. We launch impassioned pleas on their behalf. As individuals with names and occupations and some compelling drama, they make fine story telling tools. They eclipse the need to muck around in the details. They are neat, powerful, sometimes even sexy. They do great PowerPoint. These individuals stand out in the endless drone of meetings and presentations, especially when compared with our fellow (market!) researchers who are bereft of wild tales and instead left with dry charts and figures (okay, our bias).

Yet, when we use individualized representations to breathe passion into our reports, be they personas, user case studies, or scenarios, they risk standing in for markets in the form of individualized desires and economies. Such representations handily move us and our colleagues to act because they are familiar and deceivingly interchangeable with

other individuals. It's an easy next step to ascribe to the values attributed to one individual to another, especially one who correlates with the former. Do the math and we emerge with a describable, actionable market. As the data collects around these individuals, our individuals gain an aura of objectivity, even though they are nothing but a dangerously bounded set of data that happens to correlate with other data.[5]

We need to challenge this objectivity of the individual. It is not simply that there is no such thing as "an average person" or even a fully representative one. Rather it is that in the corporate environment, individuals blur into each other and the critical information about people's ecosystems drop out of the picture. As individuals, they attract the kind of values and data that better represent our corporate ecosystem than what we saw in the field.

To return to our example of the farmer in southern China who argued that the PC was useless, it was not that he could not afford and did not desire a PC, it is that he became associated (as if a transferable data point) with other individuals who had similar responses to these few questions. The unique qualities of their environments, their different reasons for arguing PCs were useless faded against the objectivity of their status as "non-owner, unafford and undesired." Our southern farmer who lived in what one colleague commented was not "real rural China" because he lived in a two story home with a motorcycle and refrigerator was paired with his statistical compatriot, a young government cadre who lived in a thatched home in mountainous western Sichuan with dirt road access, limited power and running water (aka "real rural China"). With the loss of this data, their ecosystems, we lost the ability to imagine other scenarios, other possibilities.

No doubt, it is easier to interview a handful of entrepreneurs and introduce them to our colleagues than to track down and characterize the competing complex economies of an ecosystem. Intuitively, it feels easier to sell to a single entity with a measurable budget and means of purchase. Yet, we argue, as we venture into cultures unlike our own, we enter economies that don't easily distill into consumers, points of sale, and markets. Instead, commerce happens as but one face of the local, lived ecosystem, its politics, economies and cultures. So we must find research methods that can envision the situatedness of life in Aurangabang and Haining rather than find ourselves once again reunited with our familiar friend, the individual.

In Search of the Ecosystem

As trained social scientists, we do recognize the differences between a farmer in southern China with a motorcycle and two story home and a farmer in western China who lives on a hill far from even dirt roads. We are trained to consider the debilitating effects of poor transportation and the power of a thriving network of friends and family. We can – and

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[5] Haraway describes the danger of objectivity in bounding data at the same time stating its impartiality. As objective facts, then, these bounded data sets become effective objects, scientific facts, that change the world, like microbes, quarks and genes. Haraway, 183.

should – trace the fine webs of relationships between entrepreneurs and government agents, farmers and their families, mad inventors and their customers, even young businessmen and their alibaba.com accounts. Indeed, the tensions, resonances, resistances and complicities that define them are the stuff of the ecosystems in which corporate players, such as Intel, must play.

The question, then , is how to conduct research on an ecosystem, to study not only individuals but more importantly the links and obligations that link them on good days and divide them on others. This requires that we reframe our research questions to examine both how actors navigate the economies of their worlds as well as how these economies identify the possibilities of their identities and actions.

To do so means leaving aside time-worn truths. Think of radical feminism's refusal to believe that women really exist. Theirs is a refusal to believe that the women as a categorical identity must define how women – you, I, our colleagues and our partners – act. This refusal opened new vistas for understanding how gender poses possibilities for action, necessitates unnecessary wrangling, offers momentary opportunities and insists on obstinate glass ceilings.[6] We can do the same for the concept of the individual (especially in the corporate context). We can also shift our attention from cultural meanings to cultural distinctions. Here think of Pierre Bourdieu with a touch of Levi-Strauss' insistence on how differences never sit still.[7]

This kind of reframing shifts our attention not only during the research process but also during the analysis and reporting. Below we discuss some of our successes, many more of our missteps and some surprises along the way – all of these are learning in process. Finally, we suggest a few next steps towards productively collecting and communicating our insights to our colleagues and peers.

Method or madness?

Sometimes the imperative to focus on the collective realities of our research participants was, well, forced upon us. In short, we might have started thinking we were going to interview some familiar individuals, but once in field, we did something else. The fieldwork pointed us towards the collective realities of our research participants, whether we were prepared for them or not.

While advising some students at an Indian University in Hyderabad, India how run a trial of a particular technology, we agreed to interview the local elected official, the

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[6] Two particularly forceful examples of this argument include Donna Haraway's essay "A Cyborg Manifasto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," in Haraway 1991: 149-181 and Audre Lord's attack on white-washed feminism in Audre Lord, *Sister Outsider* (Freedom, CA: The Crossing Press, 1984)).

[7] Pierre Bourdieu, *Distinctions: A Social Critique of the Judgment of Taste*, trans. Richard Nice, (Cambridge, MA: Harvard University Press, 1984) and Claude Levi-Strauss, *Tristes Tropiques*, trans. John and Doreen Weightman (New York: Atheneum, 1978)

sarpanch, of a rural area comprising several villages. Two students were ostensibly involved in this "training" interview. Yet things began to slide at the get-go. We were picked up at the hotel by three students, only one of whom was expected. On the way to the village, 11 more met us there and the "interview" was held with, at various times, from 12-25 of the local population. At one point, one of the lead students asked: "What do you expect the 'computer' to do for your village?" The sarpanch answered: "We are not sure what "computers" do, so we are not sure what to answer." The student began to explain and suddenly, to our ears anyway, the room erupted into what seemed like all 30+ people – standing, sitting, hanging on in windows and open doorways – speaking simultaneously. At one point, several minutes into this, the other student, sitting near us leaned over and said "this is getting out of control". Then, just as suddenly the tumult quieted and the sarpanch indicated the room now understood what "computers" could do. They then proceed to provide excellent responses to the original question.

5 Fifteen "interviewing" twenty-five

The point of this story is that we certainly would never have imagined planning an interview of that nature. Second, had we, it would have been exceptionally difficult to muster the sheer number of "interviewers" the students were able to bring. It also didn't lend itself to a lecturific discourse by an eager engineer on "what 'computers' can do'" as the means of "informing" our hosts. Third, the "interview" certainly did not lend itself to transcription or the sort of analysis we were used to conducting. Finally, it did not lend itself to the sort of synthesis we had imagined. Who was being interviewed? Who was answering the questions? How could we attribute the sarpanch's answer to him as an individual?

And yet, the notion of "collective interview" is alive and well. Recent work we did with Mart, a company in India, integrated insights from the collective interview into the analysis. During the research project in a rural village in Northern India, a small advance team from Mart approached the village quietly to ask permission to talk to people there. Later, we "interviewed" all the men of the town who wanted to be there. We did not select these men, they selected themselves, with an average of 50 of wide ranging ages joining the "interview" over the course of the day. Remarkably, a group that spanned from 15 to 30 participated as a group in several tasks over a span of hours. As in the prior example, they talked, argued, debated, convinced and laughed – repeatedly, but cordially – as the researchers from Mart led them through the various conversations.

From this research emerged several consensually produced representations of their everyday lived realities, maps of the shared village environment as well as examples of the where social consensus ended and dissent began. As researchers, we had no opportunity to pin down the experience of these realities onto monadic individuals, but instead it handily illustrated the social dynamics of shared knowledge in these communities. In the end, we

got more than answers to our questions, we witnessed how local economies of knowledge played out in these communities.

In search of the ecosystems

In other cases, we started with familiar research methodologies but quickly shifted our analytical from focusing on the individual in the community to analyzing socially situated practices. Here we drew on a wide variety of literature, from activity theory (s.a. Vygotsky, Le'ontev) to early studies on situated action and the workplace (s.a. Engestrom, Leigh-Star) to more recent work in science studies (s.a. Latour). With this analytical shift from individual agents to situated activities, we found ourselves mapping flows of people, resources and practices with particular attention to how these flows intersected and diverged. What emerged were economies of knowledge and action.[8]

For example, in a recent study of rural internet bars in villages and towns in China, we began with the familiar carefully scheduled interviews with internet bar owners, customers and even IT staff. We used these interviews as touchstones to track down the webs of social relationships, intersecting business interests and even monumental government obstacles (not just the policies, but the practices that made these policies real and more often than not, surreal). We looked for the intersections of activities and practices that made these businesses tick, despite it all. We were on the hunt for an ecosystem (or two).

To be honest, there was little new about our research methodology. We started by talking with people then fanned out to trace the contours of how people made their actions meaningful (or how they were rendered meaningful – positively or not). Think of Clifford Geertz seeking out the turtles upon turtles upon turtles of meaning. [9] Only we were starting

6 Kids in internet bars in rural China

with online gamers and 20sth IT staff and looking for the day-to-day practices that made internet bars a simultaneously vibrant and illegal enterprise.

Our days looked like this. We chatted with customers, ran into local officials, discovered the occasional internet bar business association, tracked down the nosy old ladies sent by the Ministry of Culture to snoop on the businesses, even sought out the rare geriatric online game player. We listened to owners gripe about rapacious local power suppliers,

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[8] Yrjo Engestrom has experimented with representing complex economies of activities. For a more concise explanation, see Yrjo Engestrom and Virginia Escalante, "Mundane Tool or Object of Affection?" in **Context and Consciousness: Activity Theory and Human-Computer Interaction**, eds. Seth Chaiklin and Jean Lave, (London: Cambridge University Press, 1996) 64-103.

[9] Clifford Geertz, **The Interpretation of Cultures** (New York: Basic Books, 1973).

parents spin horror stories of how online gaming turned other people's children into hard nosed criminals, and eight year olds brag about their online gaming exploits. We played the games, we tried out the chairs, poked around, coughed in the dust, photographed the toilets and suspicious backrooms (chock full of under-aged gamers), collected tall tales and even unwittingly inspired one taxi driver to open his own internet bar. In short, we did what ethnographers do. We talked to all the people we could find, and followed their leads to others, to government offices, to opportunistic local policies, to town and county planning directives, to the local monopolies of electricity and ISP suppliers. We hung around people's offices, work places and online game sites until the talking ran out, the stories ran dry and we thought we had found all that we could find.

Like most ethnographic research, these findings did not lend themselves to neat Powerpoint presentations. We struggled with how to represent the richness of all what we had seen. Amongst ourselves, we shared tales of this internet bar owner, that customer who beat us at CounterStrike (yet again), and the parents who frantically searched for their missing child (presumable next door in the other internet bar). We drew maps of where the internet bars were located as well as the schools and the massage parlors and the factories the employed the more frequent customers and more.

We went beyond Geertz to emphasize the relational dynamics of how meaning and action emerged. In short, we looked for the artful navigations, the skillful strategies, the necessary wrangling where people juggled their day-to-day obligations and values. Here we found ourselves in unfamiliar cultural realms, ones handily described in local terms, such as "上有政策,下有对策" (China, "above there's policy and below there's counterstrategy") or with a different cultural twist, "fahlawa" (Egypt) and "крутиться" (Russia,"twisting").

To render these dynamics visible, we shifted from developing personas and case studies to crafting representations of the complex links between family-run businesses, the cultural value of education, central government policy on information dissemination and local government economic interests. We struggled to illustrate the tensions, the risks and the profits, the spheres of interest that met uncomfortably at the door of the internet bar as well as those meeting behind closed doors. We began to map out the fraught networks of intersecting practices and interests.

I'll be frank. It was fun, but we bored our colleagues to tears. Our colleagues did not want all the stories, charts and maps. They wanted the ones that moved them forward, that gave them an action plan. We described an ecosystem. They just wanted the next step, one that pointed towards a product development strategy and spelled out a go-to-market plan. Here we missed the boat. We had faithfully represented what we had seen in the field – we found our ecosystems. But we described, rather than prescribed, and as a result failed to deliver a recipe for corporate action.

Here then is our a second hurdle. In order to have any effect in the corporate workplace, we must have mutually intelligible conversations with our non-researcher

colleagues. For them and for us, the individual is a recognized entity – a designable entity. It matches the expectations of our colleagues as well as their data. In contrast, political and cultural economies don't. They aren't very sticky, to borrow Malcolm Gladwell's term.[10] And we need to be a lot stickier, especially when representing less familiar emerging markets.

Representing Collective Realities

We must find the tools, representations and methods for honestly representing lived economies of life in the emerging markets. We must translate what we have seen into a language that our colleagues can understand AND on which they can act within the confines of corporate possibility. Here we must play with graphic representations of communal life, shared activities, patterns of social movement or interaction, etc as well as challenge what looks like and counts as actionable data.

In the case of MART, "the individual" did not emerge as the unit of analysis from our research. The methods and findings eclipsed "the individual" to reveal collective imaginings of home place, time, family and more. As knowledge and meanings pooled and social tensions divided the stories, we began to have a map of the terrain of daily life in rural India. From here we could begin to understand where ICT use could fit.

In the case of our internet bar research, we retained the explanatory power of the individual, particularly those whose stories mapped out the fault lines of local community tensions collecting around internet bar usage and operations. One such story was that of a young entrepreneur in a remote Chinese village who wanted to open up his own internet bar. He faced no small number of obstacles: government licenses traded at a high price in the local market and he would have spend the time, energy and money to maintain friendly, advantageous ties with the local cadres and village busybodies. Add to this the daily extortion of the monopolistic power industry and ISP providers.

But the real issue was his father. Like many of fellow residents, his father saw the internet bar as about as wholesome as opium dens and at their best on par with mahjong gambling parlors. He did not want his son or any other parents' children associated with such a place. Out of respect for his father's concern, the son waited for his father to leave on vacation before investing his savings into the purchase of 20 new PCs for his unlicensed (aka patently illegal) internet bar. So far, he is still in business, thanks to the daily juggle of family obligations, local official interests (such as preferring a rich local economic base over official business permissions), regional power and ISP monopolies, provincial Ministry of Culture concerns over the ideological health of its citizens, and the demands of the pre-teens

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[10] While Gladwell talks about how trends move in US consumer culture, it is not too far-fetched to consider how such trendsetting might work in our US corporate environments. Malcolm Gladwell,, *The Tipping Point: How Little Things Can Make a Big Difference* (Cambridge: Back Bay Books, 2002): 89-132.

and teenagers who flocked to his business to play Counter Strike, chat and otherwise hang out.

From this story we distilled a representation we could show our colleagues. It mapped out a recipe for a successful, for-profit internet bar complete with challengers of its particular brand of success. The map showed distinct constellations of people, organizations, local communities, government offices, online content providers that intersected across the operations of each internet bar. As we sketched out our results, our entrepreneur disappeared, but his daily juggle remained as the skeleton of an internet bar ecosystem.

It is worth noting that we designed this representation with very specific goals – to encourage brainstorming around a successful rural business model. Our hope was to communicate what was important about the internet bar both for our research participants and for our colleagues. We were not shy about our goals – to copy, improvise, alter only enough from the original ecosystems to build new market opportunities, ones that hopefully retained the vibrancy these businesses gave to their local communities (even including tense familial relations).

7 Internet bar ecosystem in China

In another example, Mateas et al., we moved from stories of how individuals spent time in their homes (with and without their PCs) to develop a representation of middle class American home life as a collective interrelation of time, space and social contact for the family as a whole. The familiar focus on the day in a life of a person at home faded as we highlighted the interlocking relationships of home space, computing and home-based activities.

Let's delve into this specific example: The framework we used encoded and juxtaposed three characteristics of life in US homes, with two-parent households and kids between 2 and 12 years old: time spent in the public space of the home (kitchen-family room complex), that time is broken into relatively small contiguous bits and that often when one person is in that space, at least one other is too. That is, people are together in the public space of the home seamlessly transitioning from one activity to another.

Again, the representation was developed for specific purposes – boosting design of home-based computing devices. It distilled just enough of the lived experiences of middle-

class Americans collectively in their lived home experience to simplify the research data and facilitate the design process.
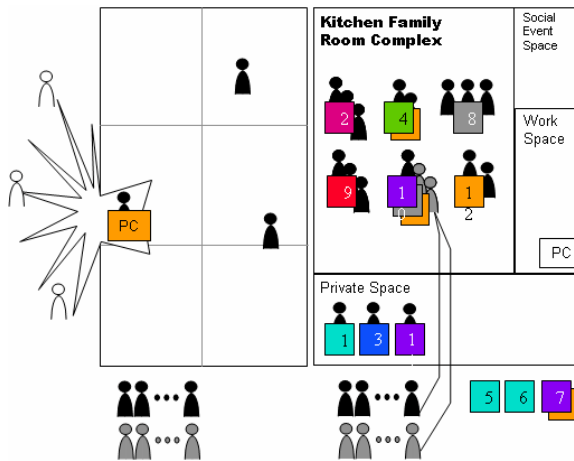

Figure 8 Generative framework representing collective family life. Left side: imagined home life based on PC design. Right side: home topology as described in text and relative placement of PC. Circa 1995-1996.

This is only one representation of the home experience. There are others. We found this one particularly generative within Intel. It's fair to the families, if a bit structuralist. Moreover, it is possible, if desired, to acquire aggregate sample statistics for these variables. However, the same statistics, unless considered in relation to one another would not "tell the contextual story" as well as this simple framework. And in fact, without the framework, the likelihood of asking these particular questions around this particular interrelationship would be low. The irony is that the people were also representative of the people in the corporation: middle class Americans with kids between 2 and 12.

As we experiment with how to represent these collective realities, it also becomes clear that we must distill our findings such that we present plans for corporate action, not complete thorough representations – in short, just enough data to lead our colleagues along to make them effective, but not so much so as to put them to sleep.

Each of these examples built from rich ethnographic research on shared lives to distill what we argue was a sufficiently faithful representation, one designed for corporate action. They accommodated corporate interests, but not, we argue, at the expense of the local. These representations, then, became the mutually generative representations, be they reports, brainstorming sessions or product concepts, that simultaneously supported the needs of the corporation and honestly addressed the tensions, needs and desires of local ecosystems.

A Call for Sufficiently Faithful Representations

We cannot give up the hope for more faithful representations of people in the context of their relationships – a form of knowledge forgotten or dismissed by the atomizing

corporate science of market research. We need to do more than bring anthropological field methods and critical theory into the corporate environment. We must actively engage in both the fields of our research and the fields of our work. We must play the role of the trickster to thwart the easy reduction of new communities of practice into markets of discrete purchasing individuals and their analytical tribes, the market segments. We must actively engage our colleagues with sufficiently faithful tales of the field so that we can bring about mutually beneficial products, services, solutions to the real worlds of those whom we study and those with whom we work.

Here is the difference between academic anthropology and corporate anthropology. We must make sufficiently faithful representations, over and over again. For this audience and that. And even in Powerpoint. We must distill what is faithful AND relevant to each of our audiences. And we must generate action of a different kind than theory making. Donna Haraway can stop at the call for radical feminist cyborgs. But we must build them, on Intel processors with high profit margins and in high volume. This is, in the end, the actions by which we are valued.

As we increasingly work with people whose lived experiences are ever more distant from ours, then appropriately and faithfully representing them and their ecosystems becomes ever more pressing. Our sufficiently faithful representations may depart from "the answer" commonly sought in corporations. They may also rely on holistically collected data analyzed both on behalf of the population and the corporation. Thus, we not only do "fieldwork in the field," we also do "fieldwork in the corporation". This interplay of the field with the forum of the corporation defines the synthesis of our work and creates structures that can support the generation of new ideas and innovations that should have mutual value.

And yet, in our experience, this work is very difficult. If it succeeds, it represents a classic Kuhnian paradigm shift, in which the prevailing theoretical view of aggregate sample statistics will wane. In the meanwhile, the continued corporate emphasis on the consuming individual unintentionally yet inexorably leads us towards a contracted, constricted and constrained approach to the development of technologies for the majority of the global population. The corporation, being larger, more prevalent, with extant profit motives and the means of acting on these motives, engages us in a benign oppression of the people and economies we seek to represent. It forces us to use its terms not only to understand what we have seen in the field, but also to communicate it to our colleagues.

This paper ends with a conundrum: As the lived experiences of those we research move farther from those in the corporation, our representations become increasingly vital to both communities. And yet, as this distance grows, the corporate pressure to regularize, categorize and normalize the lives of those we research into extant data structures also increases. As the tension escalates, so do the needs for mutually appropriate representations that as yet are in their infancy.

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The Yin and Yang of Seduction and Production: Social Transitions of Ethnography Between Seductive Play and Productive Force in Industry

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This paper examines social transitions in forms of ethnographic representation from seductive play to productive force in Industry. With a focus on the hi-tech consulting and marketing fields, I examine the eight strategies of ethnographic representation include, (1) informal conversations, (2) designed printed materials, (3) video, (4) electronic presentations, (5) personas and scenarios, (6) experience models and diagrams, (7) opportunity matrices, (8) and experience metrics. It addresses the use of these strategies within modal degrees of symbolic seduction and productive force as shaped by the theories of Baudrillard and Taoist philosophy. I propose that the combination of the concepts of Seductive Play and Productive Force and Yin Yang provide a way out of several challenges in ethnography's engagement with business decision-making, especially related to its role, mission, and power. I attempt to seduce ethnographers into seeing themselves as Taoist "scholar/warriors" able to maintain the human-centered balance in any Industry context.

Introduction

The purpose of the EPIC community is to develop understandings of the praxis of ethnography in Industry. By ethnography, I mean the philosophical orientation that says that knowledge about people's experiences should be represented from the modalities of the people studied. Because of my hybrid intersections across the fields of design and anthropology, I come to this understanding through the examination of the representational channels and forms that ethnography uses to communicate what it is/does in Industry. In the high-tech consulting and integrated marketing sectors with which I have been most intimate, there are eight representation strategies used:

1.   Informal conversations
2.   Designed printed materials
3.   Video
4.   Electronic presentations
5.   Personas and scenarios
6.   Experience models and other diagrams
7.   Opportunity matrices
8.   Experience metrics

This paper addresses the use of these representation strategies within modal degrees of symbolic seduction and productive force as shaped by the theories of Baudrillard. I select

Reflective Analysis of Ethnography

Baudrillard as an intellectual interlocutor because of (1) his clear articulation of what is at stake in productive and symbolic modes and (2) the similarities of his thinking to Taoists ideas in Tai Chi Chuan. Through my practice of Tai Chi Chuan over the past five years, I have learned that applying Taoist principles to the business contexts reduces my perception of sharp dualities and my protective disengagement with dehumanizing processes[1]. My proposal is that the combination of the concepts of Seductive and Productive and Yin Yang provide a way out of several challenges in ethnography's contemporary engagement with business decision-making:

- The effective communication of the value of ethnography to business decision-making
- The underlying assumption that ethnography has to demonstrate its value to business-decision making
- Ethnographer's fears of cooptation within the structure of business
- The interdisciplinary jockeying for power among ethnographers, designers, engineers, business managers, etc.
- The articulation of a mission of Ethnography in Industry

I present this proposal in a series of "songs" in order to seduce ethnographers into embracing a role of, what Deng Ming-Dao calls, "scholar/warriors" who can effectively use techniques of symbolic seduction and productive force to maintain the human-centered balance in business decision-making.

Contemplative Songs of Seduction

The Song of the Universe of Production

> *We now live in a universe of forces and relations of forces... A universe of production, investments, counter-investments and the liberation of energies, a universe of Law and objective laws, a universe of the master-slave dialectic.* (Baudrillard 1990: 177)

As ethnographers, you now work in a universe of production. As explored in the work of Baudrillard, production transforms objects into products by rendering visible "their positive identity (as 'this' not 'that')" and releasing them "into domain of economic exchange" (Grace 2000: 16). Production has as its defining principle "indefinite accumulation" (Grace 2000: 16). Quoting Baudrillard (1990: 84) directly, "Production only accumulates, without deviating from its end." Business recognizes that it operationalizes the universe of production. Management guru, Peter Drucker (1992: 98), states it plainly, "In every business in the world, production and distribution of goods or services is considered the ultimate good."

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[1] Although I will address this more in-depth later, some key Taoist concepts are that of the lack of sharp dualities among forces and that one must yield to any situation. To yield means to connect and follow a situation (i.e. go with the flow) until you can redirect its path.

As ethnographers engaged in business, you participate in the supporting of the purpose of business. You are part of the process by which air, water, heat have all been given a positive identity of radio band spectrums, Disani, and oil and released into economic exchange. In the universe in which you work, speculations on indefinite accumulation or growth on a quarterly basis impacts decisions to hire or layoff people. In the universe of production, business is the mechanism by which people are provided the means for the indefinite accumulation of products or now even productized experiences. The universe of production supports an investment mentality of uneven reciprocity (ex. ROI equals "I give you $1 if I will make back $2."), legal structures that protect it, and binary self/other oppositions (ex. Management/worker). Resistance is futile, for Baudrillard (1990) tells us that the force of production co-ops resistance. Drucker (1992: 100) tells you that if you do not concentrate on the specialized task of business then you will cause confusion. Although it may not seem so, perhaps it is wiser to yield to the universe of production and its forms. Perhaps in yielding, you will find the means to neutralize production's powers and thus can redirect its energies. By yielding, the ethnographer does not sell out or end up co-opted, but rather the ethnographer engages with the business force to open up possibilities for change. What forms of change? Perhaps, it will result in greater balance among business, worker, customer, and environmental values. It has been foretold that the younger generations[2] are "less tolerant of one-sided profit" and will require new rules for business (Parrish Hanna, personal email communication, August 7, 2006).

The Song of Productive Representational Strategies

> *On inspecting any one of these Charts attentively, a sufficiently distinct impression will be made, to remain unimpaired for a considerable time, and the idea which does remain will be simple and complete, at once including the duration and the amount.* Thomas Hankins (1999:1) quoting William Playfield.

To yield, one must first understand the force to which you are yielding. In the business universe of production, the two main representational strategies that business decision-makers use to enable the production and distribution of services and products are (1) the chart and (2) the spreadsheet. These are strategies of both the abstraction and simplification of mostly numerical data to aid in business decision-making. Charts and spreadsheets abstract in the sense that they take concrete events, peoples, and objects and deal with them as numeric ideas of production and distribution, providing distance. They also simplify in the sense that make these events, peoples, and objects easier to understand and thus decision-making easier to do. The chart and the spreadsheet are indicators of economic performance, the primary data of business decision-making. But as Drucker (1992: 99) points out,

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[2] In marketing parlance, this specific group is referred to as generation Y, echo-boomers, and millennials. Peter Rose of Yankelovich, Inc. (2006) in a recent presentation to the United Way Community Leaders discussed how commerce follows social engagement for the younger generations.

Reflective Analysis of Ethnography

"…economic performance is not the only responsibility of business anymore than educational performance is the only responsibility of a school."

In this context of abstraction and simplification and responsibilities beyond economic performance, ethnographers have engaged with industry. Originally, you served to correct the blind spots in abstract representation by providing the concrete, the grounded, and the "real." You address business's responsibility to the "…employees, the environment, customers…" that it touches (Drucker 1992: 99). Your role has been that of the storyteller and your tools have been those of seduction.

The Song of the Storyteller

> *The storyteller demands respect because only she can hold the different stories in one narrative, chart the connection and development between them. The storyteller promises to reveal the hidden meanings of the everyday; we see strange things, she explains what is going on. This ability shows that she herself is more than we can see.* (Bhuttacharyya 1998: 10).

A professor once said to me that ethnographers are "merchants of exotic tales." The currency of ethnographic exchange has historically been narrative. In the world of Discovery Channel and the Internet, ethnographers are not the only storytellers now, but their role is still a powerful one. Stories have the power to open the mind to new possibilities for action. In 1001 Arabian Nights, Shaharazade tells the King 1001 stories of women to open the King's mind and change his actions. The women in her stories are clever, loyal, virtuous, witty, courageous, stubborn and beautiful. The exposure to many kinds of women displaces the image of women as treacherous that led the King to behead his new brides. The power of her storytelling also changes the King's actions. He listens to Shaharazade's stories for 1001 nights, thus sparing the lives of 1001 women including Shararazade herself. (Bhuttacharyya 1998: 34).

Stephen Denning (2006:1) tells business decision-makers "…that narrative [storytelling] is central to addressing many of today's key leadership challenges." The purpose of this storytelling is not to entertain, but rather to spark action among diverse groups of stakeholders. These actions include igniting organizational change, communications, capturing tacit knowledge, transferring knowledge, innovation, building community, and enhancing technology (Denning 2006). Ethnographers tell business decision-makers stories to result in these actions and more. You tell stories of employees and/or customers as clever, fickle, inventive in extending the use of products, making work-arounds of products, and sophisticated in their processes and tastes. You tell these stories to displace the images of customers rational choice decision makers. You tell stories of workers' value. You tell stories of possible futures. It is the play of seduction that reroutes the ideas about people from their primary course as passive consumers of goods and services that they need and desire. It is the play of seduction that breaks down the distinction between producers and consumers.

The Song of the Play of Seduction

> *Seduction's enchantment puts to an end to all libidinal economies, and every sexual or psychological contract, replacing them with a dizzying spiral of responses and counter-responses. It is never an investment but a risk; never a contract but a pact; never individual but duel; never psychological but ritual; never natural but artificial.* (Baudrillard 1990: 82-83)

Both Robert Greene (2001:xxiv) and Jean Baudrillard (1990:1) begin their examinations of seduction with an observation on how seduction starts a feminine power against male brute force. Greene (2001: ix-xx) describes the genesis of seduction in depth:

> *In the face of violence and brutality, these women [Bathsheba, Helen of Troy, I Shi, Cleopatra] made seduction a sophisticated art, the ultimate form of power and persuasion. They learned to work on the mind first, stimulating fantasies, keeping a man wanting more, creating patterns of hope and despair—the essence of seduction.*

The key to seduction is the human mind. It is in the human mind where all things are illusionary. As Daniel Gilbert describes in *Stumbling on Happiness* (2006), the mind is unreliable because it fills in the blanks incorrectly, chooses only the exciting parts, and ignores patterns of previous failure. The brain's pre-selection for excitement and ignoring of past failures finds itself in the selection of high tech products. In the HBR article "Defeating Feature Fatigue," Roland Rust, Debora Thompson, and Rebecca Hamilton (2006: 5) studied how consumers select models with shiny new features, but whose poor usability causes customer dissatisfaction. Even when embodied in objects as opposed to narrative, seduction is about working the mind. The play of seduction requires playing with the mind, which is capable of even seducing itself.

According to Baudrillard (1990: 46), the play of seduction is about the "reversibility and disaccumlation" of the "real" back into its illusionary forms. Victoria Grace explains how for Baudrillard, "Reversion is rather an annulment of pretences to establish and fix the truth, real, desire, power" (1990: 164). It is meaning deflected from its truth. The mental playfulness of seduction is both serious and important because it opens the possibility of all meaning, which is crucial in ethnography's engagement with Industry. Since the early days of Xerox and Bell Labs, ethnographers used the play of seduction as a strategy to address their concerns with the effects of the force of production on people. When you tell stories about workers whose knowledge is crucial to the bottom line or customers whose lives are complicated by technologies, you challenge the truth and inevitability of a layoff or the development of the equivalent of an electronic pet rock.

The force of production exists in duality with the play of seduction. It creates and codifies the "truth, reality, desire, and power" of objects and identities to ensure their accumulation or growth. Through productive force, the business organization transforms empty signs, such as a 10% drop in quarterly profits, into the truth of an economic decline, the reality of workforce redundancies, the desire for brand experiences, and the power to

shape national policy in the name of wealth accumulation for an organization's shareholders. Against the brute force of productivity, ethnographers have primarily challenged for example the reality of workforce redundancies and the desire for brand experiences through stories of workers and customers. Yet as ethnographers, you take the strategies of "the subordinate" and the "intermediary" who controls through persuasion and indirection, never directly challenges the productive brute. It is possible that this is no longer enough to extend business's greater responsibility beyond the economic performance?

The economic downturn in the high-tech sector in the early 2000s ushered in a focus, by business decision-makers, nearly solely on economic performance. At places like Sapient, ethnographers were forced to adapt to the new business environment or were laid off. And adapting to the new business environment required not just learning the modalities of business, but co-participation in productive force through the packaging of ethnographically-informed service offerings. It is not an accident that my position at Arc Worldwide was one of experience planner not experience modeler or researcher. Some ethnographers were resistant to these processes for moral or economic reasons and opted out. Yet, for those who remained, the reversibility of the play of seduction requires constant vigilance and creativity to keep meaning in annulment, thus in play.

But Baudrillard cannot guide you completely on this path. Richard Vine (1989:1) critiques what he considers the whole of Baudrillard's philosophy as a desire for absolute childhood, "…a craven exemption from thinking, responsibility, and physical effort." One could be tempted to levy this critique against ethnography in its seductive play, but I am not. What Vine assumes in his critique is a fixing of a negative sign of childhood. I argue that Baudrillard finds childhood as a way of engagement because there is no duality between nature/culture, work/play in children. This notion is featured in Taoist philosophy as well. Baudrillard (1990: 114) indicates his familiarity with Taoist ideas when he speaks about the "subtle art of the turnaround which appears in Sun Tseu's Art of War or in zen philosophy and the other oriental martial arts." The Taoist idea of Yin Yang serves as a better guide to helping ethnographers really engage with shifting business contexts and the representative forms that communicate its engagement.

The Song of Yin Yang

According to legend, early Taoist formulated this idea [Yin Yang] from looking at a hillside. Where the sun struck the southern side, they were called yang; where the hill was in the shadow they named Yin. There was no sharp line of demarcation between light and shadow…Neither could exists without the other; they defined each other…As each moment passed, the edges between light and darkness moved—a graphic display of yin and yang (Ming-Dao 1990: 189). See Figure 1.
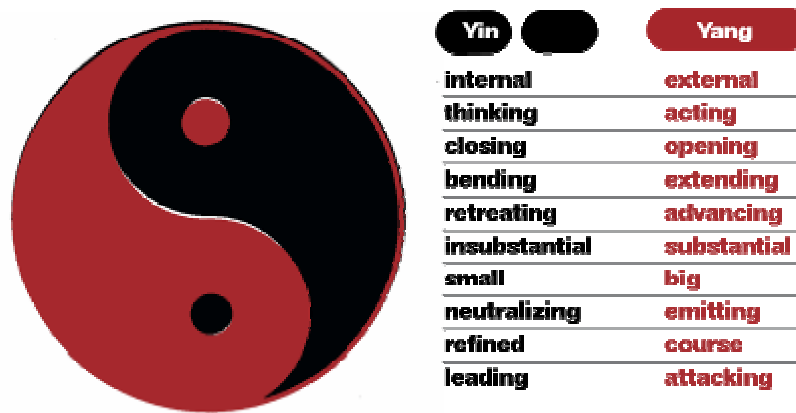
FIGURE 1 Yin Yang symbol from the Tao

Like the play of seduction, Taoist ideas of Yin Yang start with human mind. In Taoist teachings, the human mind has two minds, Xin (i.e emotional mind) and Yi (i.e. wisdom mind)[3]. Providing the passion and direction to formulate ideas, the two minds are responsible for all human creations, which first start in your imagination. (Yang 2003:10).

Yin Yang results from the action of the human mind. When the two minds turn to internal thinking, Yin results. Yin strategies relate to internal contemplative phenomenon and processes of closing, bending, retreating, etc. Yang results when the two minds turn to external action. Yang strategies relate to external active phenomenon and processes of opening, extending, advancing, etc. (Yang 2003: 19). Like the relationship between light and shadow, Yin Yang insists on the relativity of all things. Even Yin can sometimes be Yang and vice versa. (Ming-Dao 1990: 189). This closely relates to Baudrillard's idea of reversibility. Yin Yang is never in balance for that is stasis and thus stagnation, which is the opposite the Taoist "view of change that nothing is permanent" (Ming-Dao 1990: 191). This resonates with Baudrillard critique of the "fixity" of production. The alternation of Yin and Yang in cycles is another principle that is key[4].

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[3] In neurobiology and evolutionary biology, there exists the concept of two minds as well. According to psychiatrist Dr. David Servan-Schreiber (2006: 10) in *Instinct to Heal*, there are (1) the limbic structures "responsible for emotions and the instinctual control of behavior," and (2) the cortical "cognitive" brain that is "responsible for language and abstract thinking." Dr. Sevan-Schrieber's intervention in psychiatry, based on his exposure to Tibetan, Indian, and Chinese medicine, is to expand clinical treatments so that they address the emotional brain not just the cognitive brain.

[4] According to an email from Parrish Hanna of Arc Worldwide and Samsung, Ying Yang exists "…in different forms in all Asian countries and manifest themselves in the core attributes and operating policies of the largest Asian companies. Korean's enable *Cho GamSung,* while Japanese employ *Kansei,* each trying to achieve balance a deeper level of meaning in their products and services."

The concept of Yin Yang is a useful guide for the praxis of ethnography in Industry for two reasons:

1. Contemplatively, it releases you, the ethnographer, from the fear of cooptation by productive business forces. By extending yourself actively in externalizing productive processes, you make moot the need to prove ethnography's value to business, thus enabling you to redirect the energies of business.
2. Actively, it provides a means by which to map out strategies of engagement along a range of seductive (Yin) and productive (Yang) techniques. The skill at which you use these strategies will enable you to compete with business decision-makers, even other designers and engineers sometimes, in harnessing productive forces in order to reverse them into seduction.

Active Songs of Seduction

The Song of the 8 Trigrams Ethnographic Representation in Industry

The Taoist eight trigrams are the result of taking the Yin Yang into the three dimensions of harmonious existence (Heaven, Human, Earth). (Yang 2003: 5). I use the Taoist 8 trigrams to guide you (see Figure 2), the ethnographer, through the intent, approach, and techniques present in the 8 strategies of ethnographic representation with which I am intimate:

1. Informal conversations
2. Designed printed materials
3. Video
4. Electronic presentations
5. Personas and scenarios
6. Experience models and other diagrams
7. Opportunity matrices
8. Experience metrics

Yin strategies – Informal conversations, designed printed materials, video, and electronic presentations are the four main communication vehicles of ethnographic representation. As communication vehicles, they yield in various degrees to the forms communicated through them. With stronger Yin energy, their strategic intent supports internal contemplation. These forms of ethnographic representation are more commonly used in academic ethnography and reinforce the role of ethnographers as purely seductive storytellers.

Informal Conversation – The earliest form of ethnographic representation is explained through the trigram of Yin Yin Yin. It demonstrates the softest most seductive strategy for engaging business decision-makers. At the highest level, the goal of the informal conversation is Yin, to induce internal contemplation in the business decision-maker. Its approach is Yin, to yield or bend to the ideas of the conversant to learn his or her weaknesses. Its technique is to keep the ethnographer's story Yin, insubstantial and thus

malleable. You allow yourself to be seduced by the conversant, so that you seduce them in return.
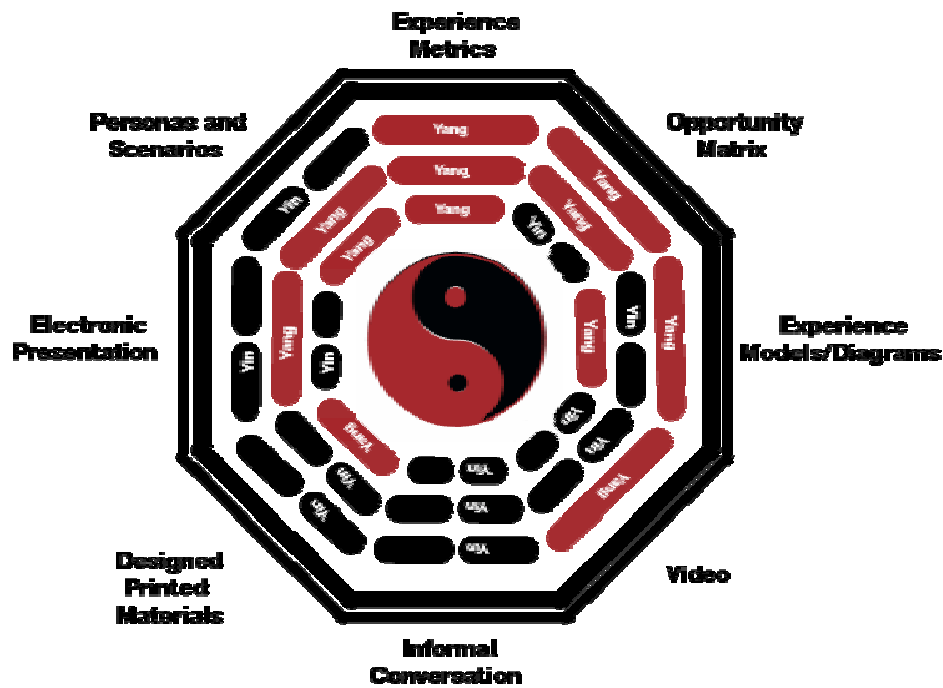
FIGURE 2 The eight trigrams of ethnographic representation

Designed printed materials – The earliest visual dimension of ethnographic representation varies according to its format and content. It is explained through the trigram of Yin Yin Yang. The intention of the designed printed material is Yin, to induce internal contemplation skillfully through visual communication. Because printed formats work best when communicating clear and simple ideas, the approach to their creation often yields to the key interests of the business decision-maker and is thus Yin. It differs in technique from the informational conversation because its paper format is Yang, more substantial and fixed.

Video – The introduction of moving sound and image is explained through the trigram of Yang Yin Yin. The intention of video is often more Yang, to affect more direct action on the part of the decision-maker. You strongly want to challenge their assumptions thus, you exploit the decision maker's weakness – a lack of a deep understanding of the employees or customers – by presenting to him or her simulated voices and images of employees or customers. Although video may seem to be Yang in terms of extending new ideas, its approach is more Yin because it neutralizes a decision-makers resistance with the storytelling

coming from the mediated experiences of people. Its technique remains Yin, insubstantial and thus malleable, through the potential editing of content in the vehicle.

Electronic presentations – Inclusive of PowerPoint and KeyNote presentations, they are explained through the trigram of Yin Yang Yin. The intention of the electronic presentation is Yin, but it seeks to induce contemplation within a group as opposed to an individual. Its approach is Yang because its linear format and story arc is often used it to extend or advance ideas, while allowing a relatively small opening for questions. Its technique is Yin because the rearrangement of slides allows the vehicle to remain malleable, thus insubstantial.

Yang strategies – Personas and scenarios, experience models and diagrams, opportunity matrices, and experience metrics all have stronger Yang (external) energy. These strategies are active forms resulting from ethnography's direct engagement with business. Although they are strategies for storytelling as well, they are direct in their participation with business decision-making through the adoption and adaptation of the two main productive representational forms—the chart and spreadsheet.

Personas and scenarios – They are explained through the trigram of Yin Yang Yang. The intentions of personas and scenarios are Yin; they induce contemplation in business decision-makers by reversing their ideas about who are their employees or customers. Their approach is Yang because you use scenarios to extend or advance ideas about the future, as opposed to yielding to current or past conditions. Their technique is Yang because their highly structured form is often substantial and fixed in time. It is their fixity that is often their weakness, although efforts to digitize and automatically update personas and scenarios will make them more fluid in the future.

Experience models and diagrams – They can be explained through the trigram of Yang Yin Yang. The experience model's intentions are Yang; it seeks to directly attack decision-maker's views of their workers or customers' experiences. Yet, its approach is Yin, neutralizing decision-maker's resistance by "naturalizing" the user's experience. Its technique is Yang in that it is substantial and fixed and derives its persuasive power from its fixity, although like personas efforts to digitize and automatically update them will make them more fluid.

Opportunity matrices – They can be explained through the trigram of Yang Yang Yin. Opportunity matrices are productive representation forms with ethnographic contributions to fill in the box. As such, their intentions are Yang, resulting in direct action by the decision-maker to follow one opportunity or another. Their approach is Yang, the direct advancing of new ideas. Their technique is Yin, for the forms of the opportunities are often electronically produced and thus insubstantial and very malleable in their content.

Experience metrics – The optimal production form is explained through the trigram of Yang Yang Yang. Whether in the format of feature/function requirements, innovation, and

brand value matrices, experience metrics[5] are often represented through cost/benefit spreadsheets with ethnographic stories contributing to the ranking of user and business benefit. Ethnographers may facilitate the ranking of technical and operational costs. Their intentions are Yang, resulting in direct action by the decision-maker to include or exclude features tied to business goals. Their strategy is Yang, the direct advancing of new ideas. Their technique is Yang, because the measurement equation is relatively fixed. In one white paper by Process Impact, the equation was "…priority = value %/ (cost % * cost weight + risk % * risk weight)" (Wiegers 1999).

An ethnographer's ability to effectively use each of these ethnographic representational strategies in various business contexts will determine its ability to use ethnography to fulfill its intention—how to balancing the responsibility of business to its economic performance with its responsibility to the employees, people, and environment it touches. Ethnographers must become Scholar Warriors.

Conclusion

The Song of The Scholar Warrior

> *Skill is the essence of the Scholar Warrior. Such a person strives to develop a wide variety of talents to a degree greater than even a specialist in a particular field. Poet and boxer. Doctor and swordsman. Musician and knight. The Scholar Warrior uses each part of his or her overall ability to keep the whole in balance, and to attain the equilibrium for following the Tao.* (Ming-Dao 1990: 10).

I conclude with a posing of what is a stake in theorizing about ethnographic praxis the way I have in my songs. Ethnography's contemporary engagement with business decision-making faces many challenges:

- It must effectively communicate its value to business, while undermining the assumption that it has to demonstrate its value to business-decision making.
- Ethnographers must overcome their fears of cooptation within the structure of business.
- The interdisciplinary jockeying for power among ethnographers, designers, engineers, and business managers must end.
- It must articulate an intention that engages with the mission of business.

Ethnography will be better able to meet these challenges if ethnographers understand themselves as Scholar Warriors. In other words, you must "master a broad spectrum of disciplines, to balance the two sides of everything" (Ming-Dao 1990: 18). By understanding the intention, approach, and technique of the representational strategies that

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[5] Experience metrics refers to the "experience economics" work found in articles and seminars by the Design Management Institute. I am most familiar with the work through the Decision Sciences and Database groups at Arc Worldwide and the writings and presentations of Dave Norton of Stone Mantle, www.gostonemantle.com.

you use to communicate who you are and what you do, you release yourselves from fear and panic in the business contexts in which you work. Then you can all focus on the ultimate intention, which is the cultivation of the understanding of "all the unknowns that haunt human existence" (Ming-Dao 1990:4).

Notes

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At Home in the Field: From objects to lifecycles

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In this paper, we explore how biographies of domestic objects are intertwined with the personal biographies of their owners and caretakers, narratives of household formation, and the life cycle of the family, and how we position the value of this work to business planners and engineers at Intel Corporation. By being curious and interested in objects in people's homes and listening carefully to the narratives people tell about them, we create moving pictures of culturally-inflected constructions of individuals' and groups' lifecycles which in turn demonstrates how 'objects' are not 'objective', but always constituted and given meaning through relationships with and among people. At Intel Corporation, understanding life cycle transitions mediated by domestic objects deepens our knowledge both of technology in domestic spaces and of our current and potential customers and is an integral part of the development of technologies that enable experiences people will value.

Biographies of Objects and Biographical Objects

Old theories are often good ones. While the idea that social lives, lifecycles and biographies are not limited to human actors is 'old' theory in the social sciences, it is not moribund. In this paper, we explore the ways in which we are successfully crafting a new life for the "social life of things" in an unexpected setting: Intel Corporation. Through examples from a current research project on a mundane and ubiquitous, yet often highly symbolically charged domestic object — the television — we explore how the biographies of domestic objects are intertwined with the personal biographies of their owners and caretakers, narratives of household formation (and dissolution) and the life cycle of the family. By being curious and interested in objects in people's homes and listening carefully to the narratives people tell about them, we create moving pictures of culturally-inflected constructions of individuals' and groups' lifecycles which in turn demonstrates how 'objects' are not 'objective', but always constituted and given meaning through relationships with and among people. At Intel, understanding the life cycle transitions mediated by domestic objects deepens our knowledge both of technology in domestic spaces and of our current and potential customers. Understanding how people live, how they want to live, what matters to them, how technologies are used, understood, and imagined in their homes around the world is an integral part of the development of technologies that enable experiences people will, and do, value.

Our argument draws on interviews, home tours, and photo diaries collected during a recently completed ethnographic research project addressing television as a social and

cultural object and practice in China, India, the US and UK. The research was sponsored by Domestic Designs & Technologies Research, a small, interdisciplinary team of ethnographic researchers (anthropologists, designer researchers and a documentary film maker) in Intel Corporation's Digital Home Group. We are interested in understanding practices of domesticity around the world and how technologies are embedded in the diversity of global homes. The research framework for this project was informed by anthropological models of exchange, consumption and material culture, (Appadurai 1986; Campell 1995; Csikszentmihalyi and Rochberg-Halton 1981; Douglas & Isherwood 1979; Kopytoff 1986). Anthropologists have long been interested in how the objects that inhabit people's daily lives not only accomplish practical ends, but express status and identity of their stewards and relationships among people, by giving physical form to cultural categories and social structure. As Kopytoff's concept of the 'cultural biography of things' (1986) suggests, such meanings are not fixed, but can change over time as objects are traded, exchanged, bought, sold, used and age. In this project, we focused explicitly on understanding the domestication and life cycle of televisions in urban, middle-class homes, employing Silverstone, Hirsch & Morley's tripartite model of the appropriation, integration and conversion of ICTS into domestic settings (1992). As one of the goals of the project was to understand how televisions, the content they run and dependent devices are appropriated and integrated into homes, we were interested in transition points in the life cycle of technologies.

In our interviews, we found the lifecycle of these objects were used to organize and mark transitions in the lifecycles of the individuals who used them and the families and households to which they belonged. We were reminded of Hoskin's work on biographical objects, domestic objects that "tell the stories of people's lives" (1998: 2). Our questioning about objects such as televisions lead to the unintentional collection of participants' autobiographies, assemblages of transitions in their lives they deemed interesting and significant to share with us filtered through the lens of the lifecycles of domestic technologies. As Hoskins suggests, such life narratives are not 'discovered', but co-created during the course of the ethnographic interview, shaped by the nature of the interaction and the types of questions asked by the researcher (1998: 1).

From Objects to Life Cycles

We were first clued into the elision from the lifecycles of TVs to those of individuals, families and households when we noticed how people referred to televisions in their homes when there was more than one present. In China, we met a 5 television family, several of which were named for life cycle, family and household formation events that necessitated their purchases: there was the set bought for the home when it was originally built 20 years ago; the set bought for the son when he reach adulthood; and the set bought for the son and daughter-in-law for their marriage. In the UK, we met a woman who was quite attached to what she called "my pink telly", a small, salmon-colored set she'd had since the 1970s and that had survived 3 children, a divorce, and competition from the introduction of new sets into the house. A 51-year- old woman in the US spoke of her "graduation TV"

and her husband's "bachelor TV", in addition to their "new" TV and the TV she won in a contest. Names like "bachelor TV" do more than indicate ownership or remind people of earlier periods in their lives; they mark transitions in people's lives, signaling what events are important in the construction of life narratives, what they want to remember and commemorate; in this case, marriage and the transition from bachelor to husband. Other events in an individual's life are best forgotten, so TVs may not be named with reference to them even when their biographies are closely linked. The only reference to a former marriage made by another study participant, 45-year-old Eliza[1], was to mention that the television in her living room was "inherited in a divorce" — which, in fact, meant *her* divorce. For her, a door had closed to a chapter in her life, the marriage deceased, and its material remnants bequeathed.

The lifecycle transitions most often experienced by televisions in the homes we visited included:

- Changes in their physical location; entering the home, moving within a room, across rooms, and — only occasionally — leaving homes.
- Changes in functionality; moving from a single purpose to multi-purpose devices or, more often as televisions age, vice versa.
- Renaming in response to: changes in physical location or functionality; the introduction of other televisions

These transitions were often closely tied to transitions in the lifecycles of individuals, families and households.

Childhood socialization: independence or safety

Childhood milestones are one of the most commonly referenced types of life cycle transitions tied to changes in the social status of televisions. Sometimes these were related to academic milestones, such as finishing high school or starting college, though usually they were much more vague, described as becoming 'old enough' or 'big enough' to warrant particular freedoms or responsibilities. Milestones of independence and maturity were often tied to the movement of television into children's bedrooms. For the Wang family in China, moving house from Mr. Wang's parents' apartment to a separate residence happened to coincide with his son reaching an age milestone (6 years old); the combination of both the household and individual life cycle transitions resulted in his son moving to his own bedroom, and receiving his own television. While in some homes, the appropriation and movement of televisions became markers of the transition children made from dependence to independence, other parents spoke of the appropriation of televisions as a means of preventing independence. In the US, the Philips dreamt of outfitting a basement level room

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[1] All study participant names are pseudonyms.

with a home cinema system to keep their soon-to-be teenage sons safe at home, "rather than have them hang out at the mall".

Formation and Dissolution of Unions

In our interviews, televisions and other consumer electronics were frequently mentioned as wedding gifts, and as problematic objects to be divested of at the dissolution of marriages or other stable relationships. In addition to the aforementioned 'bequeathed' television, two stories stand out from interviews.

In the UK, thirty-year-old Karina owned her own home and shared the space with a lodger. Almost every home electronic device in her home was tied to her relationship with Martin, her ex-boyfriend who recently moved out. Rather than describing her possessions as hers, she instead called them "Martin's", forefronting the transition in his life and in his relationships to Karina. In the division of household goods following the break-up, Martin took the 'best' (i.e. newest and most expensive) television, stereo, DVD player and computer, leaving Karina with multiples of older TVs and stereos and an old PC. The end of their relationship resulted in a change in her household structure and dramatic changes in the amount and average age of ICTs in her home. In India, twenty-five year old Shruti has recently received a portable MP3 music player as a gift from her fiancée in the United States. Though given to her as an acknowledgement of her love of music, in the photo exercise we left for the family to complete after our first visit, her 21-year-old brother, Vasa, regales us with the details of the music player's functions and a picture of himself holding it. His page-long description lovingly detailed the uses 'we' (Shruti and Vasa) had for the device. Though gifted to Shruti, the music player is not in the custody of an individual — 'she' —but of a group — 'we'. Once Shruti marries and joins her husband, it still won't be hers alone; it was chosen by her fiancée as something that would come back to his household after the wedding and be shared by them.

Household formation

Across all of our fieldsites, televisions and dependent devices figured prominently in the list of objects needed to properly outfit a home. Moving home, setting up a first home, or the addition of household members were all transitions in household life cycles that we learned about through asking about the lifecycles of technologies. In China, Mrs. Lu explained how having her parents join her and her husband and daughter in their 800 sq. ft. flat necessitated buying a new television to replace a 6-year-old TV. The new television was placed in her parents' bedroom, along with a new air conditioner "because it is important that old people live a better life" than was possible when they were younger. Respect was paid to the elder generation by placing the TV in their space, though they were then expected to curtail their own use of this area to accommodate the needs of their daughter and granddaughter to watch their preferred programming. In the UK, 48-year-old William Brown, a self-described "hoarder" housed 11 televisions in his 1200 square foot semi-detached home. With the exception of a single set, all televisions were bought second-hand or gifted from extended family that had bought new sets and wanted to dispose of older

ones. William's reasoning for taking in these televisions hinged on the need his youngest daughter Sarah, who had recently bought her own home, might have for a television. Williams explained, "a lot of things we tended to collect because Sarah might want this. Sarah might want that. So, they were being thrown away, we might as well . . . and we had, I think, four offers for TVs for Sarah. And you don't like to turn around and say, "no", so we took them."

Courting "Disappointment", Inspiring Innovation

Having gathered rich data about transitions in the lives of objects and people, we must make the value of this data clear to our employers. Ethnographic research affords various opportunities to collect data that are potentially easily deemed 'superfluous', or (worst of all) "interesting" but not "useful" from the point of view of our industry stakeholders. We've recently sat in a meeting in which a stakeholder to an external ethnographic research project he was co-sponsoring announced (in measured tones for extra emphasis) that it would be a "disappointment" to have findings that did not directly address a very narrowly defined research question that could be adequately answered through other qualitative research methods such as focus group discussions. Convincing our stakeholders that the 'superfluous' should not be deemed disappointing but useful — in fact, vitally important for making sense of answers to their narrowly defined questions — is an ongoing challenge, particularly when there is the misconception sometimes even within the company that the type of knowledge we produce leads ***directly*** to product ideas, rather than ***indirectly***, through combination with intelligence about markets, industry, and technology.

If ethnographic data does not stand on its own, but rather is part of a process for developing technologies that enable valued and desired experiences in homes, what do we gain from understanding how biographies of domestic objects are intertwined with the personal biographies of their owners, narratives of household formation and the life cycle of the family? Simply put, a deep understanding of context that we can't get through quantitative data or surveys, that helps Intel understand television not as just a screen for streaming digital content, but as an object and set of practices imbued with meanings, and embedded in complicated domestic spaces and sets of relationships among household members. We learn that you can't set up house without a TV; that TVs are embattled objects in household dissolution; that they punctuate the life cycle; that TVs are considered useful and collectible objects, thought of as dependable and good to have around 'just in case'; that TVs are embedded in household politics, practices of filial piety in ways that belie a facile definition as simply an entertainment device; and that definitions of 'personal' vs. 'social' technologies are not universal. Some of these findings may seem pedestrian from the viewpoint of an individual consumer, but fill a needed void in business settings; understanding how technologies are used, understood and imagined in the diversity of homes around the world.

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From Ethnographic Insight to User-centered Design Tools

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Wells Fargo

This case study illustrates how Wells Fargo, a leading financial services institution, builds user-centered online experiences on a foundation of ethnographic insight. The research maintains a shelf life of several years and findings are kept alive through multidisciplinary participation and reusable user-centered design tools.

> We want to make customer experience everyone's business by making the process of creating experience intuitive and repeatable.
> *Secil Watson, SVP, Customer Experience Research & Design – Wells Fargo*

Ethnographic Research at Wells Fargo

A five-year program to establish ethnographic research as a core competency in the Customer Experience Research & Design (CERD) team led to the development of user-centered design tools that now form a foundation for multidisciplinary collaboration in Wells Fargo's Internet Services Group (ISG). This paper traces the transition of ethnography from an approach used by outside consultants to inform discreet projects to a program that produces insights that extend across multiple design projects and strategy initiatives. This case study demonstrates the power of collaborative research participation to embed ethnographic insights into the corporate culture through the creation and use of user-centered design (UCD) tools. A key component of success for ethnographers at the bank has been their willingness to let go of findings so they can evolve to suit the needs of the business.

Outside consultants initially introduced ethnography as a means to explore discreet, project-specific questions such as '*How do people invest online?*' Previously, Wells Fargo project teams were typical in their focus on market research to drive business planning, new product development, and sales forecasting. Usability testing was often conducted late in the process to validate website designs. The introduction of ethnographic inquiry heralded a transition both from a reliance on numbers-oriented market research and task-focused usability testing. While market research and usability testing remain core to CERD's user-centered design practice, teams hungered for data that would illuminate the stories underneath survey

numbers and expose the "life context" outside of the moment when designs were tested in the lab.[1]

Internal researchers capitalized on the initial momentum created by external consultants and began to lead ethnographic studies with multidisciplinary teams of researchers, product managers, and designers. The scope of inquiry for these internally-conducted studies widened from project-specific questions to broader explorations of '*How people manage their financial lives*' and '*How finances affect and fit into notions of personal wellbeing*.' This shift to broader, project-agnostic inquiry marked a transition from a product- to a more customer-centric culture. This shift was becoming crucial as disconnects in customer experience increasingly arose not within the boundaries of the product and service platforms but in the transition and integration points between different areas of the Wells Fargo website.

Participation from a wide group of stakeholders and collaboration between researchers, designers and business people is central to ethnographic practice at Wells Fargo. Internal ethnographers act dually as expert researchers and as facilitators of a change process that prods us to challenge and question our embedded and emerging organizational assumptions. Distributed ownership of the findings empowers organizational members to evolve their meaning and use the insights in unique ways over time.[2] This ongoing process of mining research findings, baking the insights into UCD tools and repurposing the tools as they are reused in unique contexts are critical success factors of our ethnographic practice and is the focus of this paper.

Managing Finances Case Study

The *Managing Finances* study, conducted in 2004, was pivotal in providing a well of findings and insight that later morphed into user-centered design tools. These tools are used today in most strategy initiatives and design projects to explore and resolve problems from the customer's point of view. A deeper dive into the *Managing Finances* study will show how the collaborative process and the findings themselves provided the foundation for the tools.

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[1] As Gilmore (2002) notes in "Understanding and Overcoming Resistance to Ethnographic Design Research" market research provides a list of needs, without much depth or texture, whereas designers of experiences need to understand how the product or service is going to fit into someone's life.

[2] This model encourages ownership and integration of the insights deep into the fabric of the culture. As Forrester analysts Dorsey & Bodine (2006) report in their survey results of customer experience leaders, it is *culture* and *process* that drives the creation of better customer experiences, as opposed to other organizational factors, such as structure. They argue that to improve customer experience, firms must 1) build a shared understanding of how to think about customer experience and 2) put the process and skills in place to make improvements. The authors of this paper contend that wide participation in ethnographic research studies and ongoing use of the findings via user-centered design tools are core practices for understanding the customer and the means by which to create a customer-centric culture and processes.

Case Studies

The study focused on customers' financial management behaviors and online adoption and usage. Stakeholders from multiple business groups were asked to co-fund the study and in exchange were invited to shape the research agenda, participate in data collection and analysis, and use the findings to inform projects on their roadmaps. This approach created excitement and buy-in for the study from the beginning. Funding from multiple business units mitigated perceived risk and resistance to ethnographic research because the cost to participate was lower when shared. CERD established the expectation from the onset that the areas of inquiry would be varied enough to meet the requirements of all stakeholders.

One stakeholder group was particularly interested in understanding people's budgeting behaviors and tasks. Wells Fargo had launched an online tool called *My Spending Report* that enabled customers to see how their spending broke down into categories such as utilities, groceries, and transportation. Business proponents wanted to know more about people's budgeting habits to inform future iterations of the service.

Sixteen research participants kept a one-week journal of all of their financial management activities and also made collages or drawings of their attitudes and emotions toward money and banking. These journals grounded the in-home visits. We found that only two people kept a formal budget but all of the sixteen participants reported tracking their balances and account activity several times per week, if not daily, via the phone, website, and ATMs. Constant tracking indicated that customers lived in a reactionary, present-time mode with regard to their finances and most were not engaged in planning, organizing, and forecasting modes associated with budgeting.

Researchers asked participants directly during the interview if they kept a formal budget. Often the person would look sheepish and say something like, "Well, I have a feeling for how much money I have,' or, "I keep a budget in my head." The two participants who did keep a formal budget tended to be more financially savvy and enjoy interacting with numbers. But for most, the term "budget" carried a negative connotation mixed with guilt, like the feelings associated with needing, but not wanting, to go on a diet.

> *"It's terrible but I don't do a budget, I just keep track of balances."*

> *"I budget in my head. My wife wants to have these meetings where we go over the books. We don't have them."*

> *"Generally, budgets aren't all that interesting to me."*

Corporate anthropologist Barbara Perry, Ph.D, teaches her corporate clients that ethnographic research findings result in two kinds of learning – "out there" and "in here."[3]

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[3] This concept was introduced to the authors through a Wells Fargo Ethnographic Training Manual prepared by Barbara Perry Associates, which contained a reprinted article from *The Journal for Quality and Participation* (November / December, 1998) with a discussion of the two types of learning. The concept of the two types of learning is core to Perry's consulting practice.

The first kind of learning – "out there" – occurs from listening to people describe their experience and observing them in their own environment. The distinction between tracking and budgeting is a fine one that we would have likely missed if not for the close attention paid to the mundane details of the frequency with which people checked their balances, their bill paying routines, and where and for how long they stored their bank statements. [4]

The second type of learning that Perry refers to as "in here" is also what she calls "the real gift" of ethnography, which is that it prods and prompts the business to articulate the internally held assumptions about customers and then go out and see if they hold up in the real world. Personal and organizational assumptions are articulated when planning the research and making decisions about which kinds of people to include and what we want to learn from them. In the *Managing Finances* study, business proponents wanted to learn about customer's budgeting activities and routines because they assumed that 1) customers did indeed engage in formal budgeting and 2) these findings would reveal opportunities for making better online budgeting tools.

Designers and business people participate in data collection and analysis for the usual reasons of enabling non-researchers to get that "being there" experience and creating ownership and buy-in for the findings.[5] But participation is also crucial when organizational assumptions collide with data collected in the field. In the case of the *Managing Finances* study, not only did we find that people didn't budget, we also found that most didn't particularly enjoy managing their money, as the following journal picture and interview quotes from one of our participants illustrates.

Participant journal entry

> *"I don't like to manage finances. I find it really tedious. I am a creative person and the more energy I put into stuff like that, the less time I have for things that I really care about. I need 'Bookkeeping for Idiots.'"*

> *"The load that my wife carries because of my theater company really weighs on me. It's not like we will ever see that money again…the best we can hope to do someday is break even. It's a labor of love but we haven't had a family vacation in 3 years. But I couldn't be happy if I wasn't doing art."*

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[4] In fact, a quantitative market research survey was conducted in parallel with the ethnography and the survey contained a question about *tracking* and *budgeting* together, thereby conflating these terms and leaving us wondering which activities respondents were referring to in their answer.

[5] In fact, internal researchers have come to regard this participation as critical to interpreting and analyzing data in studies where our audience has highly specialized needs, such as our Small Business Customers. The contribution of subject matter experts on the business side leads to more accurate and specific analysis and more compelling findings.
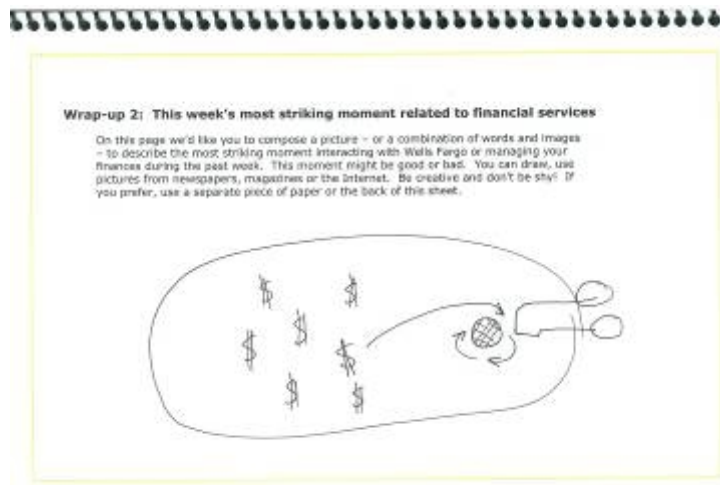
Figure 1

The fact that many people regard managing finances as tedious and anxiety-producing may not seem particularly earth shattering to you and me, but to business people who spend their work life thinking up new ways the bank can engage and deepen the relationship with their customers, this is a finding that bore explicit representation because it ran counter to the orientation of the business.

A dedicated project room and open analysis sessions encouraged designers and business people to grapple with and make sense of the data. In these sessions, we covered the walls with sticky notes, drew diagrams on the whiteboard about what we thought the data meant, and ultimately summarized the findings in the Managing Finances experience model.

Managing Finances Experience Model

The smallest circle shows the current reactionary mode that drives customers to track day-to-day balances constantly and to periodically make payments, record activity, and archive documents. The next circle displays activities that require more engagement, which many customers reported that they didn't do. This led to feeling guilty or embarrassed regarding their lack of an organized financial plan. The "engage" space is where the business's assumptions lived and the "actualize" sphere is where people want to be; to feel in control of their finances and to be free to attend to other priorities in their life.

FIGURE 2 Managing finances experience model

We recommended to our business partners that they conceptualize their product ideas in terms of the control and freedom our participants described as their ultimate goal and to help them to achieve this state. The key was not to attempt to convert customers into budgeters or more detail oriented bean counters, but rather to empower user actualization by helping customers to:

1) Know what they had in terms of types of accounts and their balances
2) Know what they need – and 'need' could be thought of from a task perspective – *'I need to transfer $300 from savings to checking'* – or from that of life stage – *'I'd like to buy a house, how much can I afford?'*
3) Know what they need to do by providing easy-to-use online functionality, as well as relevant and helpful advice.

These recommendations continue to influence decisions for how we evolve site functionality. For instance, after the study, the mantra for future phases of *My Spending Report* became 'make it automatic' so that customers could track their spending without the effort of creating and updating a budget.

User-Centered Design (UCD) Tools

The Managing Finances ethnography had far wider implications than simply thinking about experience from the perspective of the customer, their goals, and their tasks. More significantly, it set a precedent for using ethnographic research to achieve a depth of understanding about financial life, enabling us to use a common lexicon and to develop shared understanding. This lexicon is represented in our User-Centered Design toolkit and consists of two core elements:

I. Modeling tasks: The User Task Model

II. Understanding people: Enterprise Profiles & Scenario Starters

These tools act as the interface through which organizational members can consider and absorb the insights from ethnographic research.

I.   Modeling Tasks: The User Task Model
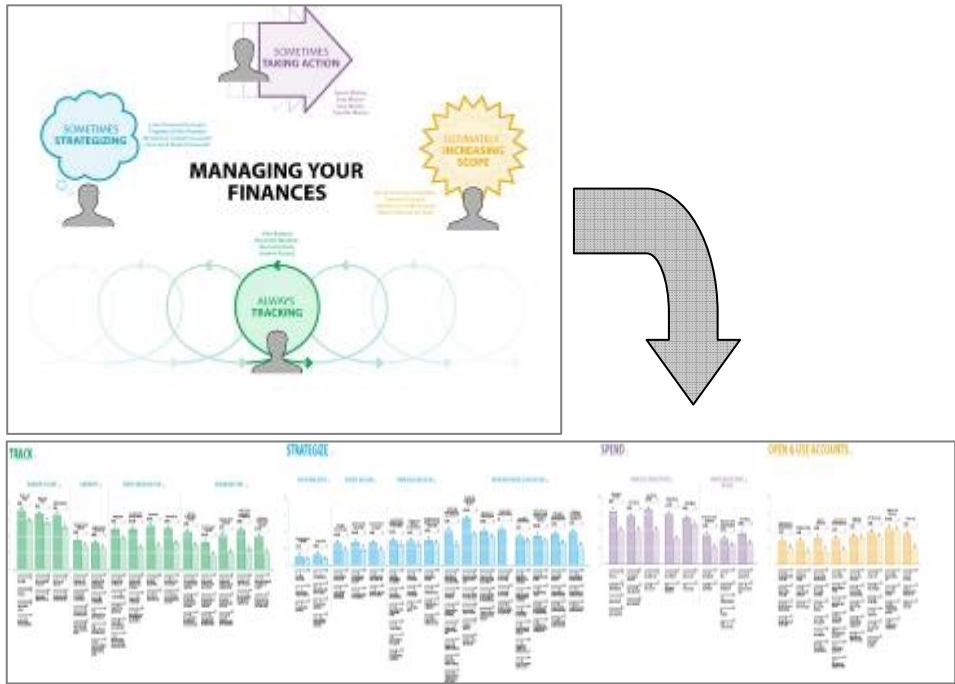
FIGURE 3 The user task model

The Managing Finances experience model evolved as researchers sought participation from strategists and designers. The different financial modes became more finely drawn out conceptual spaces through cross functional collaboration. The 'Always Tracking' mode encompasses daily activities whereas 'Sometimes Strategizing' refers to tasks that involve learning, researching, and comparing. The transition from Strategizing to 'Sometimes Taking Action' acknowledges that transactions sometimes result from strategizing, but not always. The last mode in the mental model, originally titled 'Ultimately Increasing Scope' refers to opening and setting up new accounts and has been re-labeled in our current Task Model as "Control."

The model served effectively as a high-level framework from which to view how a given product or feature may fit into users' overall financial world view but it did not adequately represent the complexities of financial life. We again turned to ethnographic

findings, with their focus on the details of everyday life, to develop a more robust taxonomy of tasks. The User Task Model now represents a map of all financial management tasks a user could perform throughout his or her life. While mapping all tasks into a taxonomy is inherently useful in terms of conceptualizing how modes and transactions relate to each other, the Task Model's true value emerges when used in conjunction with our Enterprise Profiles and Scenario Starters to showcase how life events and circumstance drive users to formulate goals and complete tasks that can, and often do, span mental modes, areas of the website, and on- and off-line channels.[6]

II. Understanding people: Enterprise Profiles & Scenario Starters

Our Enterprise User Profiles were created on a parallel evolutionary path with the User Task Model, becoming increasingly grounded with ethnographic insight along the way.[7] Our earliest profiles often varied from project to project and lacked consistent defining parameters. The Managing Finances ethnography provided the real-life data and images to create 'Enterprise Profiles' containing core "truths" about key customer segments; enabling the profiles to be reused from project to project by adjusting details like account types or online behavior.

FIGURE 4 Enterprise profiles

Three Enterprise Profiles were created to represent a wide span of needs and life stages. "Philip" represents the student segment and is distinguished by a relative lack of

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[6] The "channel" refers to the preferred mode of engaging with the bank, including in-person at a branch, using an ATM, calling customer service, or using the website.

[7] We choose to refer to user "profiles," instead of "personas" as business partners seemed to accept the former label as more concrete.

experience with financial management and a need for support as he establishes credit. "Jane" reflects the next life stage where monthly household expenses and debt management are a primary concern; retirement planning and investment are also on the horizon, but "Janes" typically need help getting started. "Harry & Sue" have the greatest degree of financial complexity in terms of types of financial products and needs; they are often grappling with competing priorities, like simultaneously planning for retirement and saving for their children's education.

These three profiles are regular "participants" in design sessions and have become so engrained in our lexicon that questions about the appropriateness for a given feature or a new product will often begin with "what would Philip want?" or, "would Jane really do that?" The ability to converse with our business partners using the profiles keeps us grounded in the user's experience rather referencing our own unique perspectives.[8]

FIGURE 5 Scenario starter worksheet

Scenario starters[9] are worksheets that connect the Enterprise Profile to the User Task Model. The purpose of the scenario starter is to weave in via fieldwork data the users' life events, financial goals, and their barriers and motivations associated with accomplishing tasks. When used in concert during a facilitated working session with our partners, we are able to humanize the activities of project prioritization, business case definition, and experience design by keeping real people and their stories at the center of the problems we work to solve. In collaborative working meetings, we co-create scenarios for the Enterprise Profiles and then take these through the entire process of trying to complete a task, or series of tasks, in order to meet their goals. We literally walk our profiles through the Task Model and our website simultaneously to see where the experience breaks down for our customers

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[8] We are currently developing Small Business profiles based on an ethnographic study of small businesses in 2004. A Student/Parent ethnography planned for this summer will enable us to expand on the "Philip" segment by identifying key sub-sets of students.

[9] Through experimentation, we found that scenario starters work better than full-blown narrative scenarios because they are co-created with the project team and they provide just enough detail to generate a realistic situation and likely tasks without too much extraneous information.

and emerge from the session with a clear understanding of the tasks germane to the experience and the problems to be solved.

Conclusion

Theory thus becomes instruments, not answers to enigmas, in which we can rest. We don't look back upon them, we move forward, and, on occasion, make nature over again by their aid. (James, 1907, p. 46)

Wells Fargo's user-centered design tools act as theoretical frameworks that describe and predict our customers' financial management goals, behaviors, and attitudes. It is important to note, however, that these tools are flexible and in continual transition toward greater specificity and usefulness; they are "boundary objects" for collaboration as well as repositories for ethnographic knowledge (Star & Griesemer, 1989). The User Task Model and Enterprise Profiles keep the human stories and research findings alive over the course of several years and multiple projects precisely because researchers invite our business partners to change, extend, and evolve the tools over time – this metamorphosis is critical to moving forward as William James underscores in the quote above.

To expand on the point of continual evolution, several developments provide further evidence that user-centered approaches are seeping deeper into the Internet Services Group's culture. In 2005, market researchers conducted a quantitative study to validate the task model. The survey-based study largely confirmed the soundness of the original Task Model but it also revealed a few important distinctions, one being that people organize tasks slightly differently when in an ***investing mode*** than when conducting their day-to-day banking. Now that each task is quantified to show the frequency, importance, online criticality of tasks, and channel preferences, we can score tasks to ascertain their potential return on investment, which makes the Task Model that much more useful as a strategic tool for project identification and prioritization. The business groups in ISG now organize their annual project roadmaps to reflect the key task modes – Track, Strategize, etc. – which helps to quickly place the project within the context of what it is helping the customer to accomplish.

Additionally, we are engaged in efforts to overlay the Enterprise Profiles currently used for design onto to ISG's traditional customer segmentation model so that the ways in which we design for and market to our customers interrelate.   We see even more evidence that our work is spreading across the organization in the presentations created by product strategists. These strategic planning documents contain both typical business-case-building content such as site metrics and displays of quantitative information but, increasingly, they also include pictures of customers, their stories in quotes, scanned images from their journals, and video clips.

The UCD tools enable designers, researchers, and business people to make meaning together and this meaning is co-constructed such that no one functional area holds all, or

even most, of the knowledge on a project.[10] The willingness to invite full participation in the research and then release the findings so they can evolve within the organization are key factors that continue to push the Wells Fargo culture to become increasingly customer-centric.

Notes

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[10] The idea of co-creating meaning in corporate ethnography is detailed in (Jordan, 1997)

Between Cram School and Career in Tokyo

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In a series of studies (including interviews, observations, surveys and focus groups), we explored the leisure practices of young adults in Tokyo. After initial fieldwork with a wide age-range of participants, we narrowed our focus to 19-25 year olds, who have more leisure time and for whom leisure activities hold greater significance. In this paper, we briefly characterize these transitional "golden years" between cram school and career in Japan, and illustrate how a grounded understanding of leisure preferences and patterns can help suggest issues and opportunities for design.

Introduction

This paper provides a brief discussion of a set of age-related findings from a series of studies exploring the daily lives and leisure practices of young adults in Tokyo. Our primary interest was in exploring practices around discovering, planning and engaging in leisure outings, to inform the design of new mobile leisure support media for the Japanese context. Tokyoites are highly mobile and travel overwhelmingly via public transport. Coordination of leisure outings can be quite complex, with groups of dispersed friends who might each easily live over an hour's train ride apart. Young people in Tokyo also have a plethora of leisure resources available, from traditional leisure magazines to new mobile internet sites offering such leisure-relevant information as restaurant recommendations and movie listings on the ubiquitous mobile phone, or "keitai." Most keitai owners subscribe to a mobile Internet service, which also provides mobile email.

Our initial fieldwork with a wide age-range of participants (16-33 year olds), showed patterns suggesting that we narrow our focus to people between the ages of 19 and 25, a period sometimes referred to as the "golden years" in Japan. Most Japanese high schoolers must supplement long days in the classroom with extended evenings in "cram schools," in preparation for the all-important college entrance examinations; and the prototypical *salaryman's* career is still expected to be one of selfless loyalty and 70- hour workweeks. But once accepted into college—and until they begin working in earnest—Japanese students enjoy a unique time of freedom from external constraint as they transition between cram school and career (White, 1993). While this transition occurs in all cultures,

the Japanese "sociotechnical experience" is unique in several ways: the marked relaxation of constraints even while living at home with limited personal space, the context of high urbanization and mobility (via public transport) and the ubiquitous presence of advanced mobile technologies (see Ito et al, 2005).

After describing our methods, we briefly characterize our findings concerning this transitional "golden age" in Japan. We then quickly sketch two examples of how a grounded understanding of leisure practices during this period can suggest opportunities for design.

Methods

This research was done in collaboration with a large Japanese printing company; our interest was in gaining a grounded understanding of the resources and practices Japanese youth currently use in discovering, planning and conducting leisure outings, and to then explore implications for the design of new mobile leisure support media. Only a very brief description of our methods and general findings can be given here; please see Schiano et al (2005) for more information.

As background research for this project, we read leisure guide content on- and off-line, made informal field observations of popular youth "hangouts" in Tokyo, conducted interviews with editors of major leisure publications, and held discussions with technically savvy university students. Next, we conducted the first phase of formal fieldwork. Twenty participants from the Tokyo area were recruited by a market-research firm, and completed an initial survey with about 30 open-ended and multiple-choice questions about typical daily schedules, leisure planning resources, leisure activities and technology use. Everyone then participated in individual in-depth interviews. In the interviews (conducted in Japanese and translated into English), we further explored how leisure time was spent and why, and then asked for descriptions of specific recent leisure outings and the details of how they were planned and executed.

In analyzing the results of the first phase of field studies, we decided to revise our recruiting to focus on 19-25 year-olds, because they have more leisure time and leisure activities hold greater significance for them. In the second phase of the research, all participants were in this age-range. Five studies were conducted: 1) an online survey with questions like the first phase, 2) an in-depth interview study with 12 participants conducted in a naturalistic setting of a restaurant or café rather than an office, 3) a follow-up focus-group with all interviewees 4) a focus-group study specifically on mobile phone use, and 5) a mobile-phone diary study in which 10 participants recorded their leisure activities throughout one day, sending their responses hourly via mobile email.

Results and Discussion

Our initial fieldwork suggested that people in the "golden years" show very different leisure patterns than those of the other age groups. For example, the daily patterns of high schoolers (16-18 years) and older "young adults" (26-33 years) are in some ways more similar to one another than those of either group are to those in the "golden years" (19-25 years). The younger and older groups had more regular schedules, woke up earlier and had longer commutes and longer work or school days than the middle group. Both the younger and older groups tended to stay home during free time, especially during the week. Nineteen to 25 year olds kept more variable hours, devoted more of their income to leisure, and described going out with friends more, on weekday evenings as well as on weekends. They also estimated spending much more time in leisure activities (43.1% overall) than did the younger (28.2%) and older groups (28.7%).

In addition, the leisure priorities of the three age groups differed markedly. In the initial survey, 16-18 year olds chose "Communication" as their top priority; 19-25 year olds chose "Companionship" and 26-33 year olds chose "Relaxation" (although Relaxation figured highly for all groups). This pattern was supported in the interviews; high schoolers mentioned communicating with friends more, the middle group mentioned going out with friends more, and the older group mentioned watching TV more. Moreover, our interviews with lifestyle magazine publishers suggested that this middle age group is their prime readership, since it is a time when people are developing a sense of their own style and preferences that they will carry with them into adulthood. After age 25, people are less likely to seek guidance on leisure opportunities and are more likely to simply know what they want and search directly for it online. These factors contributed to our decision to focus the remainder of our fieldwork on 19-25 year olds, the age-group most motivated to use leisure resources and most likely to provide useful challenges for the design of new ones.

Our findings suggest that leisure outings tend to be undertaken by small groups of friends (2-6 people). Typical outings include: shopping, window-shopping, going to a café/restaurant, going to movies, karaoke, bowling, sports events, concerts (or other live music) and hobby or club-related activities. Somewhat more special activities include: visiting friends "back home," a hot spring or spa, Disneyland or other amusement park, ski trips, music concerts, school or club field trips and tourism.

Generally speaking, the initial discovery of leisure opportunities seems fairly effortless, with leisure topics tending to "come up naturally" in conversations with friends or family, or while TV is playing in the "background." Personal recommendations are especially valued, and ads are viewed with some suspicion. Once an interesting option is encountered, however, planning and coordinating a specific outing can be a very active, effortful task. One person in a group tends to take on this task, usually on a PC. The mobile Internet seems to be rarely accessed for information, with the occasional exception of train schedules and weather reports. Discussion and co-ordination of schedules with others tends to be done in email, typically via keitai. Arranging group schedules and commutes can be

difficult, so plans tend to center around an initial meeting place (often a train station), close to a planned primary activity (e.g., going to a movie). This also provides options for the common addition of secondary, more serendipitous activities (e.g., going to a restaurant or café) to supplement the planned primary one. Still, even in serendipitous browsing for a place to eat, there's a marked tendency to rely on personal recommendations, choosing a place that someone in the group had been to before or had heard about from a friend.

The emphasis on personal recommendations seems especially strong for those in the "golden years." With increased leisure time comes more opportunities to "go out" and explore, but there is also a strong tendency to seek guidance first—recommendations from people they know, and also from "experts" or people whose taste they appreciate and want to emulate in forming their own sense of identity (as in magazines articles). This emphasis on both peer group feedback and aspiration fits well with the psychosocial stage of identity construction marking the emergence from adolescence into adulthood (Erickson, 1968).

We also note that keitai contact (largely via email) was described as a "necessity of social life" by our college-age participants. The keitai clearly serves not only to help co-ordinate leisure activities, but also as a form of leisure activity in itself. The keitai is an always-available, always-on personal technology; people feel lost and disconnected without it. Moreover, it provides something to do when feeling "lonely" or "bored". Most contact is with a few (2-5) well-known intimates; brief "check-in" emails tend to be sent spontaneously and in rapid succession, similar to SMSing in Europe (see also Ito et al, 2005; Ling 2004). This effectively provides a continual sense of virtual companionship with a few important people in one's life, while also facilitating instant access to an expanding social network. For those in the transitional college years, "hyperconnectivity" with a small group of friends and family members can provide an ongoing sense of security while one is also extending oneself outward into the world. The keitai can thus help mediate the transition to adult independence by providing a sense of social connection transcending physical boundaries, whether one is connecting to friends while at home or family while away.

Our fieldwork findings were rich and extensive, with compelling convergences across studies. In a series of discussions we explored emergent themes and potential design implications. We now sketch two broad design opportunities suggested by this work.

First, our findings on leisure activity discovery and planning suggest a "division of labor" in which PCs are used for intensive Internet search in planning activities and keitai are used for discussing and coordinating them in email (supplemented perhaps by mobile checking of train connections). This may partly reflect that Internet access is cheaper on a PC, with easy access to much wider content than proprietary keitai carrier services currently allow. However, it is also clear that when one is not on the go, a larger screen is likely to be more convenient for researching things to do. Further, some participants explicitly complained that using the Internet on the keitai is currently very unwieldy, perhaps due to poor interface design. Facilitating easy transfer of information researched and gathered on the PC onto the keitai to allow using that information in combination with phone

capabilities is intriguing from a design perspective, and could help support both advanced planning and serendipitous discovery of leisure activities.

Secondly, the increasingly advanced capabilities of the keitai, its ubiquity, and central status as an always-on personal technology suggests that it is a natural platform for advanced mobile leisure support technologies. Yet people do not seem to want to learn about leisure options through effortful information search, especially on the mobile Web. Instead, the strong emphasis on natural communication and personal recommendations suggests a different approach. As methods for aggregating the thoughts, experiences and recommendations of multiple people online are refined, end-user generated content–particularly on the keitai–could prove an especially welcome leisure resource. The striking success of moBlogs in Japan lends support to this view; careful interaction design focusing on sociality, communication and ease of use would be essential. Imagine, for example, easy, secure access to personal recommendations in context—perhaps from one's social network or perhaps from lots of "people like me"—while browsing in an unfamiliar place. This could make finding good leisure options on the fly more effective and more fun, whether one is in the "golden years" or not.

Acknowledgments

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Transitions/Translations/Gaps: Ethnographic Representations in the Pharmaceutical Industry

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Like all research in the corporate world, ethnographic research must move between different domains, translate between differently situated social actors and risk misinterpretation. In product development, this misinterpretation can result in gaps in the complex chain of information that comprises a product pipeline. This work shows how anthropologists' use of the concept of personhood to analyze and understand corporate clients and people that use pharmaceutical products, can minimize the risk of misinterpretation, allow ethnographic data to move more smoothly throughout the product development process and enhance possibilities for successful product use in the lives of those who use pharmaceutical products.

Introduction

The process of bringing a product to market involves the transition of ideas and knowledge between socially differentiated actors. These actors play prescribed roles in pushing a product through the pipeline towards the marketplace. We position this pipeline as a "chain," with ideas and knowledge that need to be translated as they move between the different groups or "links". Also, "gaps" can develop in the chain where translation is less than perfect, potentially resulting in failed products. In this case study, we show that by viewing domains of the pharmaceutical industry and their subjects of study through the lens of concepts of personhood, we are able to show how attention to specific "links" of the research process can allow construction of a more coherent "chain." We feel that this approach may be useful for helping to explain ethnographic findings across domains of our clients' worlds, and potentially prevent the difficulties that may arise in these many transitions. Further, ethnographic data in the form of visual documentary reports allow us to bring our concept of a whole person in context to view in each link of the chain, challenging abstracted and domain specific views on personhood and bodies.

Most anthropological discussions of personhood typically begin with Mauss' (1938) essay, where he questions the supposedly innate nature of personhood and instead shows how it has taken different forms over time and in various places. Mauss' argument was that earlier societies had a more socio-centric concept of personhood premised on relational bonds of kinship and clanship, which differed with the concept of the "individual" in the West. Personhood entails specific notions of the body and how it relates to the self

and the larger society. In our analysis of pharmaceutical research, we draw on notions of the body, and literature on anthropology of the body to explore how members of each link in the chain perceive of consumers of pharmaceutical products. Secondly, these concepts of personhood are models that people use to make sense of their worlds, and can be in viewing the ways that people adhere or do not adhere to the model.

In the US and other western nations, the dominant model of personhood involves the notion of the "possessive individual," the person as the "proprietor of the self" negotiated through property relations[1]. The possessive individual is thus the prototypical consumer in the Western imagination, as well as the self-actualizing subject in a political climate where people are responsible only for their own actions, free from social constraints.

In this work we show that paying specific attention to link specific notions of personhood regarding the body, and social contexts can help ethnographers be more deliberate in uncovering the assumptions our clients make about their customers, as well revealing how those customers do and do not "match up" with the notions of personhood ascribed to them by our clients.

Background: Gaps in the Pipeline

Our discussion about concepts of personhood and the body in the pharmaceutical industry begins with neither a person nor a body. Instead, our story begins with what is called a recombinant human platelet-derived growth factor, created by placing human DNA into a type of yeast. This disembodying process resulted in a pharmaceutical wound care product that those in the pharmaceutical industry generally term a "dog" – a poor selling product not fulfilling its promise as a novel and needed drug. Our role as ethnographers arose when another company had begun early-stage development of a product similar to the product currently on the market. A market research analyst called on us to conduct ethnographic research after a disagreement between the clinical developers ("the scientists") and product management ("the marketers") at the company over how to set up Phase III clinical trials. Looking back, we interpreted this disagreement as having its roots in the different concepts of personhood and the body apparent in the two groups' (or two links) constructions of the end users of their potential product.

Our client informed us that these disagreements arose in discussions between the two links, whereby the clinical scientists stated that they wanted to structure the Phase III clinical trials exactly as those of the competing product, following tried and true pharmaceutical practice in developing a "me too" (or copycat) drug. The marketers, however had expressed some concerns with this approach. They felt that maybe the competing product's lack of success was related to the people using it, rather than any

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[1] This concept was most fully developed by C.B. MacPherson (1964)

inherent lack of efficacy with the product itself. Importantly, neither group identified physician prescribing practices or instructions as problematic.

From past experience conducting research on clinical trial design, we were aware that scientists have a very specific and narrow task in bringing a product to market. They are responsible for producing extremely structured and constrained sets of data needed to fulfill FDA requirements for drug approval. The Phase III trials are the most stringent and important, being the final stage needed to actually market a drug to physicians and patients. As a result, the scientist's perspective on the body begins with a highly abstracted view of skin, body parts and biochemical reactions, which only later become attached to human "subjects." They may perceive of potential users of the product as a "bag of chemicals," or measurable endpoints needed to fulfill FDA requirements. Here bodies are abstracted to separate body parts that function on their own, often removed not only from a system and other parts, but also from the people with whom they are associated. This economically driven, compartmentalized model of the body allows for an abstraction of parts that are not "surplus" parts, but parts that have specific value based on their reactions to certain drugs.[2] So in the case of a product that deals primarily with a pancreas, for example, scientists may view potential consumers only as a pancreas and all possible associated physical side effects, isolated entirely from a person with a lifestyle, socioeconomic standing, social networks and everything else which may affect how people understand, use and experience a pharmaceutical drug. In one sense it could be argued that clinical trials are set-up to remove the "messiness" of real people from the equation of producing pharmaceutical products.

Once a drug makes it through Phase III clinical trials, marketers face the challenge of providing materials and instructions to ease the transition between physicians and patients when administering the drug. While marketers do think about social worlds to some extent, many view physicians and consumers, or users as "possessive individuals." Interestingly, physicians also view themselves as possessive individuals during more traditional market research stating in some way or another that they choose products based on science and "evidence based medicine," rather than economic or social factors, for example. Users also may imagine themselves as possessive individuals when asked in quantitative research.

Findings

Since our client's drug had not yet received FDA approval, our research focused on the use of the future rival product. We observed physician-patient interaction in the exam room and also went to the patient's homes to talk about and observe how they cared for their wounds and used the product. By viewing our findings through disjunctures in concepts of personhood, we were able to connect the disparate aspects of the consumption "chain" of those we studied.

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[2] This perspective on the body draws on the work of Nancy Scheper-Hughes and others who research how people construct notions of the body in specific political economic contexts.

Our clients were surprised to find that physicians completely disregarded the tiny and meticulous detailed instructions for using the product that were included in the product insert. The process for using the drug (a gel) involves patients painstakingly measuring their wound (using a mathematical formula that could be calculated in either centimeters or inches), then squeezing out onto a clean surface a specific amount of gel which would exactly fill that specific surface area measurement. Then, using an "application aid," the gel would be applied to the wound to "approximately 1/16th of an inch," and there was yet another mathematical formula to calculate how much the amount of gel actually weighed, which was calculated in grams.

Why did the physicians ignore the instructions? After conducting research with physicians and patients, we found that physicians understood the on-the-ground use of the product in a different way than scientists or marketing professionals. Physicians did not view their prescribing practices as insufficient. Instead they considered the social context of their patients as they made choices around how to administer and instruct them on how to use the drug. In practice, physicians realized that demographics also made the application process problematic for many users of the product, who were elderly, obese, low income, had poor eyesight and were physically unable to reach many of the areas of the body where they were supposed to apply the product. Many needed help to apply the product and would enlist family members and visiting nurses; however economic limitations of some the people and their families left them with few options for assistance. Further, when we observed professionals dressing wounds, we found that the sheer awkwardness of the process was apparent, as they often struggled to dress the wound after application of the drug, dropping scissors and sterile gauze on the ground as often as the patients and their family members. Given these limitations, it was unrealistic to expect users to measure and apply the gel in the most sterile and precise way, and essentially, the most effective way. Further, some physicians would resist prescribing the product at all if they knew the patient had a lack of social networks, realizing that without assistance, a bed ridden, obese, elderly patient would have little to no chance of applying the costly drug in an effective way. Many physicians also considered the insurance status of their patients or their ability to pay out of pocket or enlist people in their social networks who could purchase the product for them. Physicians knew that misuse of the drug due to such limitations might result in misuse of the costly drug, removing its efficacy altogether and leaving the patient with an untreated wound.

Patients themselves then did not view their wounds as an isolated part of their bodies either. Instead, many considered the use of this product to be one step in their complicated health care related and troublesome lifestyles. Dealing with hardships of everyday life often trumped their ability and their desire to take the time and energy necessary to thoroughly learn the intricacies of "correct" product use. Even in cases where patients experienced extreme concern and anxiety over the care of their wounds, they were overwhelmed by the realities of dealing with other life threatening health issues, insurance companies, social services, transportation options and basic needs. Scientist and marketer expectations—that wound care occurred daily in a sterile and concentrated vacuum in which

the patient was focused directly on his/her wound as a separate object or part—were unrealistic.

Models of Personhood Exposed

Our analysis of the wound care process allowed us to reveal concepts of personhood on the part of users and physicians that aided the client in developing and marketing a product that would achieve maximum efficiency and usefulness in people's lives. We introduced video footage of people attempting to dress their own wounds, and stories of people using the medicine logically (for their lifestyles) but incorrectly (for the efficiency of the drug). Such stories present alternatives to clinical scientists who, given the demands of the FDA, often remove the person from their consideration, reducing the patient to a clinical endpoint, a small piece of skin to be measured and quantified. Our video footage and narrative report also presented challenges for marketers who had positioned "users" as quintessential "possessive individuals," "owners" of their bodies able to rationally and methodically measure and apply the product regardless of external circumstances. We also demystified physicians' worlds and revealed that they were, in actuality negotiators in a complex transaction where they realized the limits of their abilities and viewed their patients' world as comprised of complex social networks, not objective clinicians communicating scientific information in a formulaic way.

Conclusions

At the conclusion of our project we presented analysis and video clips revealing the underlying assumptions of personhood inherent both in the client's world, as well as that of the physicians, patients and their families that would be their eventual target market. Through considerations of notions of personhood, and video footage of real life client worlds, we were able to bring people who use pharmaceutical products to life for representatives client domains. While it is always necessary to consider client needs and client language when designing a project and resulting deliverables, including an ethnographic approach to these domains allowed us to conduct research and resulting analysis in a language they could understand. Our attention to client worldviews is important for the benefit of such findings for scientists, marketers and potential users of pharmaceutical products for the future efficacy of the product in the lives of patients who use their drugs.

Notes

The ideas presented here are solely the responsibility of the authors and do not reflect the official position of Integrated Marketing Associates.

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CULTURAL TRANSITIONS – WWMD? Ethical Impulses and the Project of Ethnography in Industry

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We are at an early moment in the formation of an ethnographic project in and of the corporate world. I suggest that the work of ethnography in industry would benefit from being conceptualized as project *in its own right. This paper seeks guidance inspired by earlier practitioners and scholars of ethnography and design as to how to think about the potential of this project and attempts to tease out some of the ethical impulses that underlie this project. This consideration is particularly timely in light of a current interest of companies in the motivations, practices and behavior of the people through which they achieve their goals. This interest is especially relevant in the context of services–an area of particular growth and attention–in that with services what is being sold or exchanged is the performance of the people, often acting with or through other resources. In light of the fact that ethnographers in industry are actors in services systems and are both subject to and influencers of the dynamics of the service economy, it is apt to explore our own practices and impulses at this point in time.*

> The importance of image for service work means that, increasingly, such work should be conceptualized as involved with cultural sign vehicles, transmitting commodified messages that can be deciphered in the process of symbolic exchange. In this visual age, the workplace is conceptualized as a stage upon which employees…must execute an aesthetically pleasing performance.
> Bryson, Daniels and Warf, *Service Worlds*, p. 110

Introduction: Services The Project of Ethnography in Industry

The performative play of peoples, products and processes currently occupies a particular place in the corporate gaze. The reasons for this are many, from the post-Enron regulatory environment to the search for new sources of competitive advantage and the attendant focus on "experience". Transitions (conceptual and otherwise) related to the growth and pronouncement of the services economy is yet another reason. Services involve the performance of activities by one entity for another. This performance often unfolds through the integration of human labor and material artifacts: a haircutter employs scissors and styling products while an IT outsourcer employs combinations of people, management practices, processes, computers, servers, communication networks, and so forth. Both employ know-how, experience, and social capital. Services are exchanged through networks of relations that can be simple or complex (hairdresser to customer or IT providing firm hiring temp workers who interact directly with the customers of the client), and fleeting or long lasting (a 45 min. haircut, the ongoing provisioning of call center). Most importantly, a

hallmark of services is that value is co-produced; all partners in the engagement act, to varying degrees, as both producers and consumers.

For this reason, companies appear to have a particular interest in the motivations, practices and behaviors of the actors in their system, particularly in service contexts where what is being sold or exchanged is the performance of the other. A 'good' performance creates a good experience. So to the degree that a person actually performs the services, that person becomes the product.

One need only invoke "call center" and "India" to understand that transitions attendant to economic, political, sociological and cultural articulations of the services economy are potentially transformational and significant both in the largest senses of global change and in more individual senses of self-hood and identity. In off-shore call centers, for instance, cultural training, the encouragement to adopt Americanized names, providing tools and guidance on how to create a kind of virtual localism through commenting on the caller's local sport team or weather, and so on, act as evident means of directing or influencing the performance of people. The papers by Jones (2006), Rangaswamy and Toyama (2006), and Jones and Ortleib (2006) all point to aspects of services—personal medical care through combinations of expert and self-servicing, local IT service provisioning in rural India, online services for personal expression and connections—and the transformational impact of these.

Ethnographers in industry, too, act as service providers offering our expertise and labor to inform everything from product design to long-view organizational strategies. Our own practices also remain in transition, requiring, for examination, a reflexive gaze. This reflexive gaze is engaged by Nafus and anderson (2006), Hasbrouck and Faulkner (2006), and Greenman and Smith (2006). These authors explore how the epistemologies, practices and impact of ethnographic praxis can be understood in the context of the demands of work in and with business enterprise.

Elsewhere I have argued that a new canon of ethnographic work in industry is emerging (Cefkin, forthcoming). Here I wish to make a more particular (and modest) proposal: that the community of ethnographers in industry—a community productively built from multiple and intersecting disciplines, backgrounds and practices including but not limited to performance, computer science, various fields of design, business and of course anthropology—would be well served to conceptualize our efforts as a project in its own terms, a project, a labored undertaking, that is something more than the application of techniques of observation or the additive sum of a series of field research efforts for corporate products or in organizational settings. In this paper I attempt to tease out some of the ethical impulses that underlie that project; I do not attempt to delineate the scope, form or content of the project. (See, for example, Robinson (2005) for the ongoing work in this effort.)

What Would "M" Do? Seeking Guidance for What Ethnography in Industry Is and Could Become

My route to starting to identify and name some of the ethical impulses that underlie the project of ethnography in industry is by way of asking, WWMD, or what would M do? The term "WWJD?" or "What Would Jesus Do?" became popular among Christians in the 1990's "as a reminder of their belief that Jesus is the supreme model for morality, and to act in a manner of which Jesus would approve" (Wikipedia; WWJD). (It is worth noting that at least as much space in the Wikipedia entry was allocated to describing "Parodies and Variations" of the term as was dedicated to description of its origins and usage by Christians.)

As an anthropologist I cannot fully separate the project of ethnography from the domain of anthropology, and thus to explore this question, I draw heavily, though not exclusively, on other anthropologists. Following the kind of reflection jogged by a glance at a woven bracelet, as I imagine disciples of the WWJD experience, I do not seek evidence of direct commentary on this topic. Rather I look for guidance and inspiration for asking what ethnographic practice in industry is and could become. So I ask myself, what would Malinowski do?

What would Malinowski do? There is a project of ethnography

> "To pause for a moment before a quaint and singular fact; to be amused at it, and
> see its outward strangeness; to look at it as a curio and collect it into the museum
> of one's memory or into one's store of anecdotes—this attitude of mind has
> always been foreign and repugnant to me… It is the love of the final synthesis,
> achieved by the assimilation and comprehension of all the items of a culture and
> still more in the love of the variety and independence of the various cultures that
> lies the test of the real worker in the true Science of Man." Malinowski *Argonauts of the*
> *Western Pacific*, p. 517

Bronislaw Malinowski (1884-1941), the Anglo-Polish anthropologist who provided the seminal treatise on the Kula exchange among the Trobriand Islanders, is typically regarded as having set in motion the defining standard and dominant paradigm for ethnographic research for anthropologists. Long-term ethnographic research throughout the duration of at least one complete social (e.g., agricultural, ritual) cycle, daily interaction with members of the community in their language, the aim to understand "the native's point of view" all made their emphatic appearance with Malinowski's work.

This framework is hardly the one followed by ethnographers in industry today, so what does that have to do with the here and now of ethnographic praxis in industry? Many are familiar with (if not tired of) the current debates circulating the hallways of the EPIC conference, online, at other conferences (such as that provoked by Paul Dourish's presentation and paper for the 2006 Computer Human Interaction conference), in cubicles and offices, not to mention in publications and print, around the questions "what is

ethnography? And who is an ethnographer?" We discuss. We define. We defend. We critique. We challenge. We insist. We go on.

While as ethnographers in industry we are caught up in our own questioning of what ethnographic work means to us we would be well served to recognize that people engaged in ethnographic work in positions other than as practitioners in industry, including those in the academy, are faced with many of the same questions. Our counterparts in departments of anthropology, sociology, science and technology studies, and policy, for instance, pose many of the same questions. Is 'being ethnographic' a question of time, a matter of duration? Is it a question of place, a matter of locations? Is it about subject, a matter of people? Or perhaps about approach, a matter of mindset (the "love of final synthesis"?) and practices?

The particularities of the scope and content of the project of ethnography and the methodologies for getting there have been and continue to be debated. The conventions of the Malinowskian project have been challenged, both in terms of its methodological demands and its claim to being a complete and total systemic description of cultural difference as a part of a Science of Man. Yet Malinowski reminds us of the value and aim of a *project* of ethnography. It is a project that requires "synthesis" and "comprehension" and it is a project that goes beyond exposing and interpreting isolated, or "quaint and singular" facts and is indeed bigger than any given study or application.

What would Mead do? The project of ethnography is also a project about ourselves

> "As this book was about adolescents, I tried to couch it in language that would be communicative to those who would have most to do with adolescents—teachers, parents, and soon to be parents. I did not write it as a popular book, but only with the hope that it would be intelligible to those who might make the best use of its theme, that adolescence need not be the time of stress and strain which Western society made it; that growing up could be freer and easier and less complicated; and also that there were prices to pay for the lack of complication I found in Samoa, less intensity, less individuality, less involvement with life." Margaret Mead, preface to 1972 edition of the 1928 *Coming of Age in Samoa*

As we sort through questions of what ethnography is and who ethnographers are in the business and organizational worlds we inhabit, we might do well to ask what Mead would do? Margaret Mead (1901 – 1978), arguably the most popularly-recognized anthropologist to this day, is known for her clear and broadly assessable portrayal of the seemingly casual and unworried sexual life of Samoan adolescents, shocking in its publication in the 1920's and explicitly directed as commentary of the anxious lives of American youth. Thoughts of Mead invite a consideration of the nature of our investigative practices and the ends towards which they proceed.

I wouldn't be surprised if others have been greeted, as I have on several occasions, upon introduction to the field or the eyeing of my notebook or video camera with a

comment along the lines of "the Margaret Mead of the corporate world!" I've also been amused to have the comparison made instead to Dana Sculley, the TV-character FBI investigator of *The X Files* (these days one might expect the comparison instead to any of the *CSI*-franchise leads).

A comparison between the approaches and foci of the investigative practices suggested by Mead and Sculley offers a playful means against which to examine the nature of our investigative work in organizational and corporate contexts.

	Mead	**Sculley**
Subject	Native	Alien
Time orientation	Present	Future and past
Data sources	Empirical	Uncertain
Modality[?]	Demystification of the foreign Defamiliarization of the familiar	Mystification of the known Understanding of the unfamiliar

FIGURE 1 – Comparative frames of investigation

This comparison might further provoke consideration of the frames of the project of ethnographic praxis in corporations. In that many of us have had our research stem across 'real' and 'virtual' worlds, that avatars may be legitimate actors in our studies, and if we substitute "user, "customer" or "employee" for "native", I'd hazard to say that many people feel their work, at different times, crosses all these categories. We are not just trying to understand the present, but we are innovating for the future. We are committed to the empirical basis of our work as a way to achieve understanding, but also turn to creative and imaginative sources (themselves culturally derived) for innovation and experimentation. Sensitively attuned to underlying assumptions of our interlocutors, we constantly toggle, I suspect, back and forth between making foreign things more familiar and making the familiar less so as a way to get the attention of and bring understanding to our clients and colleagues.

Mead's guidance appeals strongly in her gentle persistence regarding the aims of our work. Mead's efforts were directed not just at an examination of the other in order to understand them and add to the corpus of social scientific data (or, for us perhaps, the corpus of ways to market to them, design for them or make them more productive). Rather it was specifically to provoke thinking not about 'them' but about us. She claimed the ethnographic project as a project through which we think critically about ourselves. To look again, to look sideways, as Catherine Anne Bateson (1994) reminds us (she knew, after all, what Margaret Mead would do), is a powerful part of the ethnographic gaze.

And that we might see ourselves in that glance, our arm supporting a video camera, ourselves prosthetically embodied in a signed consent form lying between us and an interview participant, our voice captured and played back again and again in the act of transcription, should not worry us. What Mead suggests to us is that reflexive consideration

of ourselves is in part the point of the project of ethnography in industry and not a matter of idle navel-gazing.

What would Mok do? The project is not only about what we produce, it's about the process and why we engage in it

> "We need to move away from talking about the things we produce toward talking about what it is we actually do. If you ask a doctor, for instance, what he does, he says I perform heart surgery or brain surgery. If you ask a lawyer, she says I prosecute criminals or I litigate cases. They describe their work as activities. But if you ask designers what they do, most often the answer is a list of deliverables: annual reports, brochures, Web sites, or posters. We describe our profession by tasks rather than by their underlying ethos." Clement Mok 2003

The debate about the aims, techniques and boundaries of the emergent practice of ethnography in industry do not stem singularly from the side of anthropology and questions of ethnographic practice. The debate is also a debate about what is being created and produced and how the acts of production and consumption unfold. It references questions and quandaries expressed squarely within the world of design. Indeed, the "designer, digital pioneer, software publisher/developer, author, and design patent holder" (as official inscribed in this biographical note (www.clementmok.com), Clement Mok, recently suggested that the profession of design is itself in a state of "incoherent disarray" (2003). Mok, a former creative director at Apple, the founder of Studio Archetype, the former Chief Creative Officer of Sapient and a past president of the American Institute of Graphic Arts (AIGA), asserts that "designers exercise immense unacknowledged control over the public discourse" (ibid.) and yet are not doing enough to advance and invent new services of value to business and society, particularly in light of the mainstreaming of design (Mok, IIT Strategy Conference). Describing a dynamic driven by defeating acts of self-preservation, Mok articulates a concern less for the contested nature of the representations created through design and what they stand for than for how to understand the process of design and who it represents: "Its not about designers per se. It's about the fundamental phenomenon of design, which has many participants—and most of them aren't designers" (2003).

The terrain of the work of ethnographers in industry is made up not only of the content, subjects and objects of our studies—examinations of how medicines are being transformed, for example, or of where and how identities are being created and recreated— but also through the infrastructures, processes, tools, and contexts of our endeavors. Simon Roberts quotes a remarkably dense list compiled by a researcher into commercial research firms of surely no less than 100 different articulations of techniques of our practice from "accompanied interviews" to "experience audits" to "visual ethnography" (2006; 88). And these focus primarily on those we might use for data gathering, saying much less about those employed in analysis, concept formation, design, interventions and other activities common of ethnographers in industry. Also a part of this terrain are the social and cultural worlds we inhabit and take action in, global processes of capitalist production, markets, labs, agencies,

clients, and regulators of our work. What we are debating when we debate, I believe, is less the specific questions about the details of this terrain, though they can and do serve as vehicles for our questioning, and more what defines the ethos that underlies it. Following Mok, it is a debate less 'about ethnography per se' and more 'about the fundamental basis of the project of ethnography in and for industry'.

I personally welcome this debate. Once ethnography becomes a mere technique of looking, a kind of instrumentation of observation that contains the act and the rendering of the act all in one, it ceases to be ethnographic—relational, human, dynamic and alive. Through our performance of the debate we engage the ethnographic and in so doing can hope to save ethnography from transactional definitiveness and potential obscurity—the designer describing her work by the tasks accomplished and deliverables produced rather than motivated action and what's accomplished by it. Mok calls for an engagement, a re-engagement, with the project of our efforts, for going beyond recycling old work, and for not losing site of striving for a deeper ethos.

What would Marcus and Fischer do? The project is a changing project

> "Experimental strategies to alter the standard forms of anthropological accounts are expressing, on one hand, a new sensitivity to the difficulty of representing cultural differences, given current, almost overriding, perceptions of the global homogenization of cultures, and on the other, a sophisticated recognition of the historical and political economic realities which, while not denied, have been elided or finessed in much past writing." George Marcus and Michael Fischer, 1986, *Anthropology as Cultural Critique*, p. 4

The project of ethnography continues to be transformed to attend to the questions we want to ask of the world we live in today and according to the contexts from which we now work. On this, the 20th anniversary of the publication of the landmark work *Anthropology as Cultural Critique* (1986), I find myself wondering, what would Marcus and Fischer do?

Anthropology as Cultural Critique lays out a strong claim for an ethnographic project of today (a point that has often been misunderstood). Examining the project in light of the conditions and concerns of more recent times, George Marcus and Michael Fischer, in that work and in numerous works since, continue to argue for a commitment to an, albeit changed, project of ethnography. It is a project that takes place both here and there; a project that goes beyond simplistic reductions of subjects into overly discreet and bounded categories; a project that demands a rigorous approach to an empirical understanding of social reality, a rigor that doesn't allow for easy simplification and that stems from a view that knowledge and understanding are best attained through always-open processes of questioning and commentary; and a project that offers this understanding to the social sciences broadly, many of which are facing crisis's of the limitations of the tools and methods of their trade for rendering an adequate understanding of complex social reality.

Gesturing towards an area that may help to delineate the scope and content of the project of ethnography in industry, Marcus and Fischer argue for the need to reconceptualize the ethnographic project as a "multi-located" (Marcus and Fischer, 1986) or "multi-sited" (Marcus, 1995) one. The contexts, resources, networks and infrastructures which make up and surround peoples' social and cultural lives are made up of and exist in multiple "sites" of action and discourse. A term much in vogue, "multi-sited" has unfortunately been applied to describe a study that focuses, for example, simply on two physical locations—a Best Buy and a Computer City, a development lab in one region and one in another. The notion of multi-sitedness, however, is much richer and offers up much more than to describe these statements of fact. Afterall Malinowski himself moved around; that ethnographers traverse different physical locations is nothing new. But what the notion offers, and is moved towards in the papers presented as a part of the Cultural Transitions session of EPIC, is a claim to a strategy to follow the connections, associations and relationships that intersect in the cultural productions we are interested in understanding. "Sites" here include not just varying physical settings but also the players and institutions through which differentially powered discourses operate. Rangaswamy and Toyama (2006), for example, explore the world not just as seen through the eyes of rural PC kiosk operators in India, but also point to the perspectives and roles of multi-national corporate and national state interests.

Ethnographers in industry are afforded the advantage of working ***from within*** systems and networks of cultural production and accessing the processes, players and (often back-stage) scenes of the making of many of the bits of this production. While we may also face additional obstacles in pursuing multi-sited agendas (i.e., our business sponsors and stakeholders may resist a broader frame of study for a number of reasons), we are also offered a special opportunity in the sites of our labor that we should try to claim and recognize as a dimension of the project of ethnography in industry.

Marcus and Fischer also inspire us to view the project of ethnography in industry as an experimental one, experiment not in the sense that, if it fails, we'll stop, but in the sense that it provides a set of tools and an approach, as Fischer has suggested, for "mak[ing] visible the difference of interests, access, power, needs, desire, and philosophical perspective" (2003; 3). Here too ethnographers in industry have the potential to realize a unique construction of this experimental play. As invited participants in the business and organizational worlds we inhabit, we are actively positioned to produce tools for the making visible of difference (i.e., understandings, designs, challenges, concepts) and to see that they are mobilized across boundaries and audiences.

Marcus and Fischer remind us not just ask after and remain attentive to the changing nature of the ethnographic project; they encourage us as well to seize the opportunity facing us to bring value from the life of the experimental effort.

Conclusions

The world inhabited by ethnographers in industry requires that we ask after our duties and accountabilities to the businesses and organizations we operate through and to the clients of those businesses. It requires that we bring into focus the doing of design and our roles and actions in building things. So there is more to be considered. But what I believe underlies the core of our collective effort is a commitment to parsing out just what it is that we offer specifically as ***ethnographers*** involved in business and design.

Towards that end, I have attempted to tease out some of the ethical impulses that underlie and may help guide the work of ethnographers in industry. Following Malinowski, I've suggested that what we are involved in—or should be, or has the potential to be—is more than applying a set of techniques to a way of doing business but rather is a project in its own right, a project larger in scope than to expose meaning behind singular facts and a project concerned with the synthesis, comprehension and a making visible of differences of all kinds.

Drawing inspiration from Mead, I'm led to embrace the notion that it is a project about others to be sure—users, consumers, producers, and stakeholders in their particular sites and forms—but that it is also a project about us and the nature of our practice and the understanding it renders. Self-reflexive examination of our concerns and practices legitimately and productively should fall within the bounds that the project.

Mok prods us to not get lost in itemizing the tasks we perform and foreshortening our vision to focus only on the things we produce. He points us to recognizing and calling up the underlying ethos of our efforts, an ethos that should invoke how we participate in the process.

And finally, Marcus and Fischer inspire a recommitment to the project of ethnography and an embrace of the reality that the project is changing. They suggest particular considerations—multi-sited and experimental perspectives and approaches—that gesture towards delineating the scope and content of the project. As our practices, our behaviors and performances, continue to unfold in the service worlds we inhabit, we must continue to push at what it takes to provide an ethnographic understanding that truly attends to the complex worlds that we attempt to grasp and in which we act—worlds very much under the gaze of the corporate and organizational entities through which we work.

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From Ancestors to Herbs: Innovation According to the 'Protestant Re-formation' of African Medicine

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Lodestar

This paper argues that popular healthcare practice in urban South Africa bears little resemblance to the essentialized descriptions of 'Traditional African Medicine' (TAM) that abound in the literature. It defines several key transitions that have occurred in African medicine, outlining how it can be re-formed on another basis which better matches both the pluralistic-syncretistic logic of current medical practices and the less deferential 'spirit' of those enacting them. We present the search for 'embedded innovation' formulated with Procter & Gamble as a recommended approach for cross-cultural product development (in healthcare and more generally).

Prologue

For EPIC 2005 I wrote (in completely partisan fashion) that ethnographers working on commercial projects are in prime position to break new ground on emerging phenomena because they are often thrust into such areas before they register on academic radars. I then stated this held especially true for areas within "the socio-technical nexus" since new technology products are usually planned and launched before their wider social uses are apparent. (Jones, 2006) This attention to technology was consistent with the project I was writing about (a new media offering by the BBC) and a majority of that conference's case studies (not to mention its sponsors).

However, this paper indicates I may have tried to focus the positive halo effects of the applied ethnographic gaze too tightly. For here we discuss how research into a very different product area (over-the-counter medicine) for a global consumer goods company (Procter & Gamble) equally delivered unexpected insights into an emerging area of cultural change - the transitional nature of African medicine.

The Project and the Paper

This paper proceeds at a slight angle from the project that gave birth to it, since our research was not specifically concerned with theorizing a transition. Our mission for Procter & Gamble was to help guide new product development in over-the-counter (OTC) medicines for the Southern African region. As such, we were interested in learning about the fullest range of responses, beliefs, and current treatments comprising household healthcare (with special attention to colds & flu and gastro-intestinal issues). We took a practice-led or

treatment-focused approach, so were initially agnostic regarding which medical tradition a treatment might be assigned to (if any). Nevertheless, when we discovered that 'Traditional African Medicine' (abbreviated TAM) in township South Africa was undergoing a process of transition akin to that which characterized the medical landscape as a whole; we took it as a positive case for believing the synthetic model for product innovation we were developing would resonate well in this context.

This paper is an account of current healthcare practice in urban South Africa. It details several overlapping transitions in the use of African medicine and its common logic (that we part-facetiously refer to as its 'protestant re-formation') and which we believe can form a new basis for understanding African medicine. We will then speculate on what macro-level determinants lay behind these transitions; and go on from there to ask, from a cultural perspective, if some Western allopathic and African medical practices have interpenetrated, what elements of TAM still remain that are in some sense 'traditional' and 'African' while not conforming to the definition above – or even remaining *within* a body of tradition. Finally we discuss how these insights contributed to the innovation strategy recommended to Procter & Gamble.

The project on which this paper is based was commissioned by an advanced research unit of Procter & Gamble in the UK charged with furthering methodological innovation. The method we inherited was designed to gain insights into 'personal healthcare' by making in-home visits; conducting 'audits' of medicine chests, as well as detailing any 'home remedies' they made for themselves. The understanding, as soon as Lodestar was hired for this project, was that we were going to do a 'deeper' version of the method. The anthropology-as-brand effect was clearly to the fore here (Suchman: 1998) as both consultants leading the project were former or current anthropologists (myself and the research manager who was fulltime in the field).

The ambition for Procter & Gamble was to go beyond the usual strategy of taking OTC medicines that had been successful in other countries and transplanting them to an emerging market aiming at whoever could afford them there. In contrast, they wanted to design new preparations specifically for Southern Africa (to fit Africans' tastes and habits) as well as target 'lower income consumers'. To achieve a mixed sample we made use of the largely-intact socio-spatial segregation characteristic of urban apartheid (Frescura, 2001) researching in (formerly official, yet still mostly) 'black townships' 'colored townships; and a couple other urban areas.

Plural Practices, Purist Model

The institutional view

In traditional African medicine healing is believed to follow from putting things right between an array of forces that go beyond the person of the sufferer. As a leading

commentator on the field puts it, "One characteristic feature of traditional medicine - wherever in Africa it is practiced - is the belief that serious illness can be caused by a supernatural agency, for example, ancestor spirit anger." (Okpako, 2006: 239). In this view, bodily health is largely a by-product of an intermediary successfully attending to the wider metaphysical causes behind a person's illness on their behalf.

It was only after conducting research into personal healthcare practices in South Africa (at mainly township locations in Cape Town and Johannesburg) that we learned just how far many people's everyday health narratives diverge from this traditional model. If we as researchers went into the field sensitive to the cultural influence of specifically 'African' approaches to healing, we quickly learned that in urban South Africa there was little privileged status accorded to 'traditional African medicine' compared to other forms of available healthcare. But while it therefore had no hegemony, it remained one resource upon which people could draw.

As I said, we took a practice-led approach in our research focusing on the actions these households took (both preventatively and reactively) to safeguard their healthcare. This often began by with looking first at the medicines or treatments used. These tangible artifacts served as prompts for more detailed descriptions of their healthcare practices (as well as the institutions they interacted with). As these narratives unfolded we got access to any beliefs or ideologies concerning their healthcare situation or providers in the townships.

One of most striking things we learned was that most informants did not feel hard pressed in their health needs, but instead had whole repertoires for dealing with household health (involving medications, institutions, and practices). Within their considerable collections of medicines we usually found no less than four types: prescription drugs or remnants of these (often antibiotics or vitamins); western branded OTC medicines; Old Dutch patent medicines, and some kind of herbs or herbal-derived treatments (often located in another part of the house). This in turn gave insight into the institutions they were interacting with and what they felt about them.

The state of affairs described by much of the published commentary (Dunlop, 1975), (DeJong, 1991), (Hewson, 1998), (Gilbert and Gilbert, 2003) is one in which the majority of the non-white population have practically no access to Western-style physicians, or biomedicine, (and thus were said to depend on traditional African healers). By 2004 in township Cape Town and Johannesburg this was no longer the case. In fact "The Clinic" or free government health service emerged as the main healthcare institution that was not only within reach for our informants, but appeared to be (in marketing jargon) their 'first port of call'. Clinics had the virtues of being a "drop-in" service and of dispensing free prescriptions on the spot. However, the highest status was reserved for "Doctors" (meaning private doctors) who required an appointment and charged a hundred rand fee for a consultation (bundled with medicine). Doctors were preferred because believed to be more efficacious. One informant explained, clinic medicine is "weaker" whereas with Doctor's medicine "you notice an improvement in two days". An important backup to these institutions were

"Pharmacies" where prescription refills, or OTC medicines could be obtained between clinic visits along with advice; and "Supermarkets" or street stalls, where these items could be purchased when advice wasn't needed.

Only four of the households described treatment by traditional healers: two giving favorable accounts; two rejecting any further such treatment. In contrast, almost all of the households had herbs in their medicine collections, yet there was usually no practitioner guidance or institutional support corresponding to these. It was this notional 'gap' which started us thinking about the transitional role of traditional African medicine.

Doing it for ourselves: DIY Pluralism

But to understand the South African healthcare landscape from this institutional perspective over-simplifies the situation. Because probably the most important healthcare 'resource' (outweighing even the primacy of the state clinic) was our informant's wide knowledge of ailments and treatments, of the practices of 'folk medicine', and of how to 'work' the different systems. [2] This was actually the household's first line of defense for their health. All of them, when faced with an illness, started not (as typical now in the West) by asking 'Where can I go'; but 'What do I know' and 'What can I do about this'. This is why at their relatively modest level of income these families had such large amounts of medicine – because to a large extent they were their own healthcare. But equally important to prepared medicines was the practice of making 'home remedies', an original focus of our research method which proved highly significant. These families kept ingredients such as ginger, garlic, aloe vera on hand; or collected special ones like gum leaves or alse herb to treat colds, fever, pain, diarrhea, cramps. One woman in Johannesburg made her own cough syrup by combining Dutch patent medicines and fresh ingredients. When symptoms presented themselves, the initial response was to check the medicines, mobilize these recipes, make and administer a preparation, then watch the response (all before any 'expert' is consulted). The most influential source for advice on illnesses, all maintained, was friends, family and drawing on their collected experience. Now all this may seem to quaintly reference old notions like 'peasant wisdom' or equally what Giddens calls the "knowledgability" (1984:281) that underlies all societies able to act for themselves [3]. But in this study these practices can not be overemphasized, because this tendency toward self-help or DIY treatment can, in effect, be considered both as a '4th tradition' in South African healthcare (to be added to Western scientific medicine, traditional African medicine, and old Dutch remedies) or as the crucial missing 'layer' in the institutional or 'systems' perspective from which most healthcare planning is done.

This DIY 'tradition' of course has its own characteristics or even 'spirit'. What animates this approach (and influences these township dwellers views on medicine overall) is a vigorously pragmatic orientation to healthcare that values only what works and whatever works without bias. [4] This almost 'empirical' attitude based on trial and error (and the accumulated experience of others) means that our informants took a non-ideological

approach to medicine. Just as they would play one institution off against another; going to the clinic only if OTC or 'home remedies' failed; then escalating to a private doctor (or considering a healer) if relief was not forthcoming; so to they were also playing one 'tradition' off against another to get the most effective treatment (again showing little ideological or cultural preference relative to their own background). [5] This was results-driven healthcare with the main basis of 'preference' being outcomes (always really the perception of outcomes). Except, unlike what we may be used to in the West where health (or diet) choices are increasingly identity- (and thus ideology-) laden; preferences here were not generalized to a tradition, but specific correlations between an illness and a remedy. We never heard anyone say "Western medicine is best, so that's what I use." [6] Instead; one Colored informant quite representatively said "For some things (like chest infections) you *must* have antibiotics" (not linking these drugs to type of medication). But the same woman also advised that when picking the alse herb (to prevent diarrhea) you had to be very careful to do it before sundown. So we discovered the healthcare situation, in urban South Africa is one of overwhelming 'medical pluralism' (Dauskardt, 1990) (Gilbert and Gilbert, 2003), a term we were using even before we found it in the literature:

> *Many patients seek care from several different systems of care simultaneously or at different stages in an illness episode. These choices often represent highly rational responses to the constraints and opportunities people face.* (DeJong, 1991)

This statement perfectly matches a focus of our debrief document. And while I know that understanding behavior as "highly rational" is not considered sexy at present –when it is not *your* theoretical precept, but something immanent in the social action, you have to go with it. Consequently, we did hear about many rational 'strategies' being pursued. People would go to clinics for a free diagnosis then go to a pharmacy to get the "stronger" drugs if they knew they could buy them under the 100Rand charge for private doctors – thus getting the best drugs *and* saving money. (Over this cut-off point they might as well go to the "Doctor" and get the consultation and drugs together). A Colored mother switched treatments when she realized the psoriasis crèmes she traveled to get her daughter from the Red Cross Hospital (which they used for emergencies and trusted deeply) were not really improving the condition. Instead she started buying African herbs (comfrey and wild cannabis) from nearby Rastafarian street traders (achieving better results *while also* saving time and money)

A key point here is that this rational action went *across* medical traditions almost as if there were no boundaries between them (as if our township dwellers were healthcare nominalists for whom only the particular is real). I believe the spirit of pragmatism drove the pluralism, then the pluralism reinforced the pragmatism; having more options for treatment (balancing efficacy, time and money) means there was no sense in committing to one tradition to the exclusion of another – playing across borders can turn constraints into advantages.

What's Going On Out There?

Purist Model

Yet, set against these myriad practices, we have the discourse of 'Traditional African medicine' with a more unitary logic. We have already mentioned how Okpako (2006: 239) said traditional African medicine -wherever in Africa- ultimately has a metaphysical basis. If we are to believe further commentators TAM also has a common aim and ontology: "For traditional healers, healing involves an attempt to remove impurity or disequilibrium from the patient's mind and body" (Hewson, 1998) Hewson goes on to give an account of her research with six traditional healers in Southern Africa. This account is useful because it describes healer practices rather than purely the 'philosophy' of traditional African medicine where many writings focus. It is significant however, that while most of her informants lived in South Africa, she chooses as her paradigm case Julia, a Shona-speaking woman from outside Maputo, Mozambique:

> *Once, a man came to see me who suffered pains in his legs and many other places and could not walk. First, I talked to him and I asked about his life, what life had given to him and what he had given to life… I had to throw the bones many times, until I could make sense of this person and his problem. The bones did not want to talk to me at first, so I asked the man to come back another day…This didn't work either, so I took him to my own compound. Every day I got up before sunrise, washed with herbs, put on my ceremonial clothes, and beat the drums. I sometimes took muti (medicinal potions) so that I could talk to the ancestors. My patient participated in these ceremonies while he lived in my compound. Then I would go alone to the bush to hunt for herbs to make muti for him and other patients...This man stayed at my compound for 2 weeks.*

This account is also instructive because it links the two terms of the transition discussed in this essay (ancestor spirits and herbs) and reveals part of the traditional conceptual model behind their relationship. Going deeper on this, Hewson relates how "healers prepare and prescribe therapeutic medicines, believing that every disorder has a corresponding plant or animal product that neutralizes its effects" (1998). What Hewson neglects to describe is that these functions were not 'traditionally' preformed by the same person. There was a crucial division of labor between 'diviners' (*sangoma)* and 'herbalists' *(inyanga*) (Ngubane, 1981; (Hammond-Tooke 1989). The diviner, who acted as an oracle to the spirit world (as well as observing the afflicted body) came up with the fundamental metaphysical diagnosis, the herbalist then prepared the plant or animal treatments to redress the ailment. It is important for us to emphasize this distinction because it is precisely here that we believe the current fault line in African medicine lies. But again in the 'traditional' model there was a unifying overlap between these professions because the use of herbal medicine had its own metaphysical element, being accompanied by a ritual practice known as 'incantation'. "Incantation is medical poetry…a collection of carefully chosen words used to bring out the healing effect of the medicine." (Okpako, 2006:239). It appears in this purist model herbs really only work if 'activated' through the auspices of the traditional herbalist. So far, so tidy.

Transitions from a Tradition

If the discipline of anthropology (and doing ethnographic research) teaches anything, it is that time, shifts in context, and different social actors play havoc with even the most solid institutions and representations. One of the great global transformations emerging from the European industrial revolution has been migration from rural hinterlands to urban centers. The history of South Africa has its own painful version of this story. The historian Robert Ross has even written that the whole rise and fall of apartheid hinged on its ability to deal with the issue of urbanization, or "attempts to control the numbers and behaviour of Africans within South Africa's cities, and by resistance to such control" (1999:116). As part of this attempt 'townships' emerged toward the end of the 19th century (becoming official policy after 1948). A township was an area on the outskirts of established cities where members of non-white groups were encouraged (or forced) to live in racially distinct zones. Since their formation townships have been the entry point absorbing most of the migration from rural areas, so even if racially prescribed, they remain extremely diverse environments composed of people and customs from across South Africa and beyond. Nine of the households we studied lived in townships, three in urban areas of equal diversity; and one of the questions their health practices helped us answer was: *what happened to 'traditional African medicine' once it moved to the city?* In our ethnographic research for Procter& Gamble we discerned four key transitions in the use of medications from the way it is 'traditionally' described for African medicine. We summarize these as *from ancestors to herbs*:

– *from the power of 'ancestor spirits' to that of the body*- People talked and understood their health in terms of bodily symptoms (pains, chills, aches, fevers) and furthermore described treatments as ways responding to the body. The cause or reason for sicknesses was blamed on; climate, heredity, diet, stress, unclean surroundings, or other people. Neither Black, nor Colored nor Indian seemed to have a supernatural disposition toward their health or ailments – even though many professed to have a religion. Even those who mentioned using traditional healers spoke of consulting them to address a problem of the body (in one case, a pain in the throat).

– *from mediated 'treatment' by experts to direct treatment (by people of themselves and dependants)*- The traditional model of African healing emphasizes an intense personal engagement by the healer with and for the 'patient' (as in the example above). The healer crucially intervenes both in the spiritual and natural world on the part of the ill person until their health is restored. In our urban research however, the household were very active in their own treatment, seeing their health as mainly there own responsibility. They kept considerable armories of medications to hand. The women especially could describe a wide variety of symptoms and how they would treat them without outside help. Clinics and Doctors were reserved for problems they could not self-diagnose or treat, (or for children needing careful attention). There was some resentment and a feeling that the traditional healers would not allow one to take charge of your own health.

– *from taking remedies composed of opaque mixtures to identifiable herbs*- In traditional African medicine herbal mixtures were specific to the person and the occasion and the way they were mixed or blended was kept secret. Often people who use herbs now know which ones work for what complaints and wish to be given them without going to a healer (possibly several times - if our account above is representative). They also seem to believe them 'effective' without being administered with an incantation.

– *from a reliance on healers for traditional medicines to use of pharmacies, street traders and other vendors lacking 'traditional authority'*- As many people know what they should use to treat particular symptoms, this opens up 'the market' to other suppliers who can supply herbal medicines simply as a product – often cheaper and conveniently free of ritual.

We had observed the results of such movements in their current-state but could only speculate about how and when these transitions occurred. Looking for background beyond our own research's scope, we found mainly timeless, ahistorical accounts like the expositors of TAM above. So we are indebted to a South African geographer Dauskardt (1990) who looked at the spatial flows of traditional medicine in South Africa over time. His most important contribution was the story of the growth of 'urban herbalism'; how the use of African plants (gained from sources other than traditional healers) spread during the last century in South African cites. [7] This provided some of the historical 'facts' needed to validate our analyses and help us realize these transitions had a trail into the past. We learned western OTC or 'patent' medicines became popular in the townships from the 1930's onwards at a time when access to actual western medical doctors was rare. So, combining these trends with the known lack of 'formal' healthcare in poor 'native' areas until recently (DeJong, 1991), (Gilbert and Gilbert, 2003) we arrived at the earlier impetus for the strong self-help tendency that we had observed. And given all these factors, we believe unlike the 'institutional' view would have it, the mass of urban dwellers had not simply resorted to the government's residual category of traditional African healing - but had been evolving their own DIY healthcare in a dialogue between TAM and western medicine, Dutch medicine and whatever knowledge of 'home remedies' they had brought from their native place or evolved there.

This self-care over time has given birth to a 'spirit' we discerned in the research; one of pluralism and pragmatic experimentation, as mentioned, but also a further attitude (that can be said to be a cumulative effect of the transitions above as well their encourager) of: *whatever increases my sense of personal power and control is desirable, whatever doesn't less so.* This combined with the specific transition towards people wanting to access herbs directly and not go through healer-intermediaries led us to proclaim "African medicine is undergoing a protestant reformation" in our original project document(Lodestar/P&G, 2004). And there are obvious conceptual echoes of that historical epoch. Certainly we mean it mainly as an ideal-typical analogy (following Weber (1930) but hold that this characterization matches

the phenomenology of experience gained from listening to our informant's comparing different healthcare traditions.

Recent epochal events linking the personal and political (or macro and micro) in South Africa reinforce the analogy. Just as Schama (1987) has shown how the Calvinist Dutch of the Golden Age had their creative energies unleashed once they threw off their colonial masters the Spanish; so the average South African has seen a huge increase in their real and symbolic sense of agency since the transition to popular democratic rule in 1994 (Deegan, 1999). In one of the few works to deal with this subject in South Africa in a way not predominately structural, Naidoo and Van Wyk (2003) (who are community psychologists) cite Serrano-Garcia's (1984) description of empowerment as involving:

1. The enhancement of personal power
2. Creating awareness of alternative strategies to problem solving
3. Accessing resources in society

Naidoo and Van Wyk (2003:75)

It is possible to make a case on all three counts that a primary reliance on traditional African medicine (or traditional healers themselves) would represent a diminishment in South Africans' experience of empowerment. First, TAM in its purist mode is very healer-led and opaque in its treatment regime, representing less agency than the self-help of DIY practices (or the pluralistic mixing of different institutions where the patient *makes the choice* which to use and when). Reliance on traditional healing could also represent for many South Africans a throwback to when this was their only expected source of healthcare (and they had less alternatives), also, arguably, going to clinics or private doctors feels like the attainment of a wider involvement 'in society' especially since it was formerly withheld. So maybe it is not surprising - given wider social and political history - that newly enfranchised, non-white, urban South Africans are not embracing TAM in its wholly traditional form, preferring to cleave off its herbalism and mingle it with other types of medicine available to them.

Towards a Non-Essentialist African Medicine: The Protestant Re-Formation

Critique

But it is just this kind of failure - to acknowledge the separate destiny of 'herbalism', from the tradition of African healing - which is typical of the literature on TAM. In this paper we had to theorize these transitions because of a considerable lacuna between our research experience and what we encountered when we tried to reflect on it. Focusing on the prevailing forms of health and healthcare in township South Africa it appeared that 'divining', or conferring with the ancestors, was declining in frequency (at least as a 'healthcare' practice) while 'urban herbalism' appeared widespread and on the rise. [8] Yet

most literature seemed not to acknowledge this divergence preferring to treat 'traditional healing' as a timeless unity (with the salutary exceptions of Ngubane (1981) and Hammond-Tooke (1989), cited by Dauskardt, (1990). This is an illusion I believe commentators on TAM have actually fostered by focusing on the 'purest' examples they can find. For example, Hewson also researched with a healer from the Eastern Cape of South Africa, "who practiced in a herbalist *store* that she co-owned with a white South African man" (1998: my emphasis) yet chose to highlight as her prime model of healer practice a woman who lived in a "traditional African compound" in Mozambique. There is only one word for this - essentialism - and it has had a prominent critique within anthropology and social theory for years. (Said, 1979), (Rosaldo, 1989) (Abu-Lughard, 1991) This tendency to treat certain chosen qualities of a cultural form as intrinsic, defining or unchanging (Sayers, 1997) has been seen as one of the weaknesses provoked by the 'culture concept' itself, leading Abu-Lughard to claim we should "write against culture" to uncover a more differentiated sense of the real (1991). We have already seen how (Okpako, 2006: 239) defined TAM as bound up with concepts of supernatural agency; and others (Hewson, 1998) (Gilbert and Gilbert, 2003) characterize traditional African medicine as a whole (from a cultural-ideological perspective) rather than as a set of practices that can be discretely deployed at different places and times by different actors.

Once we move beyond this essentialistic vision of TAM and place it back within history we realize its trajectory is typical of many traditions within 'a post-traditional society', (as described by Anthony Giddens in his notable essay on the topic (1994). He usefully connects the contextual nature of tradition with its ability to command authority, "The natural state of tradition, as it were, is *deference*. Traditions exist in so far as they are separated from other traditions, the ways of life of separate or alien communities" (1994:86) But a tradition becomes "disembedded" (1994:86) when it has shifted to a context "where pre-existing traditions cannot avoid contact not only with others but also with many alternative ways of life" (1994:96). Therefore, its sense of authority loosens, becoming something to be reflexively 'chosen' (among other alternatives) rather than simply adhered to. Township South Africa is such a post-traditional context, and in this setting you will remember our informants unanimously opted for a pluralist stance showing little *deference* to any of the medical 'traditions' they encountered; but much *deftness* in choosing to juggle them all. Taking Giddens' analysis further by adding the dimension of practice, we realize there is in fact a triple disembedding that a 'tradition' can undergo:

1. *A tradition can be disembedded from its context* (as traditional African medicine has been from its historically rural setting; as emphasized by Giddens when he speaks of time-space distanciation), but equally;
2. *A tradition's practices can be disembedded from its experts*, or traditional 'guardians' (e.g. for TAM, the growth of herbal stores and pharmacies, prepared herbs sold without input of healer), and;
3. *Practices can become disembedded from any tradition at all* (remedies and herbs as part of everyday life, little concern with origins or deeper explanatory principles)

From our research it appears parts of TAM have undergone all three senses of disembedding (particularly in the transition to the newer practices of urban herbalism), but these can also be used as a heuristic to evaluate any current medical tradition.

The third disembedding is especially important since it illuminates a key aspect of the self-help (or DIY 'layer') of urban healthcare described earlier. At this level there are really no 'traditions'; just treatments, regimes and strategies that respond to particular conditions. In this 'view from practice' all medicines and remedies are pooled together into one great repertoire of **competence**: ginger, Dipirin, alse, Grandpa powder, aloe vera, antibiotics, comfrey, Vicks Vaporub, gum tree leaves, verstek druppels, axel grease, Med-Lemon, and camphor oil. What unites them is that they can all be **called on**, are all ready-to-hand within practical wisdom waiting to be mobilized, and are all seen as somehow effective if they are to remain within the repertoire.

If we have already referred to this as the 4th tradition in African medicine, it is really more like the master; or meta-tradition that contains the others, and in so doing cannot be said to be **within** any tradition at all (except the catch-all of 'folklore' or 'folk medicine'). I do also believe from our research that this folk practice is the most responsive and relevant form of healthcare in urban South Africa; (without it there would be many more people miserable or dead in the townships everyday) and that for the herbalism of TAM to join this repertoire does not entail that it **as a tradition** is 'dying', rather, it shows that TAM can be resilient and adaptable.

However, from this viewpoint some of the **writing** on TAM (DeJong, 1991), (Hewson, 1998) (Gilbert and Gilbert, 2003) (Okpako, 1999, 2006) seems to amount to scholarly re-construction; or a reification of practice extracted from current social process in order to isolate a strong and intact African tradition (that can stand alongside the indigenous medical 'great traditions' of China and India) for the purposes of policy-making or systematic integration into state health systems. Okpako is a particularly strong proponent of this cause, even lamenting the fact that being an oral tradition "has hindered emergence of a generally accepted theory and hence the systematic development of TAM as a self-regulating profession" (1999:482).

I am reminded at this point of a trope from the anthropologist and potent critic of essentialism, Renato Rosaldo, who suggested we would be better off thinking of culture and cultural forms as more like 'garage sales' than 'art museums' (1989) I feel like I have just sketched out how one such garage sale can work for the healthcare needs of urban South Africans, yet we are in no short supply of would-be curators.

Construction

A deeper consideration of DIY health practices makes the project they have in mind seem all the more unpromising. Namely, there is a final transition we observed but have not

yet revealed*: from pluralism to syncretism.* Our research and analysis suggests that in township South Africa the 'medical pluralism' we described (different traditions or systems separately applied for different ailments or phases of them) is tipping over into a state of 'syncretism':

> *The attempt to reconcile disparate, even opposing, beliefs and to meld practices of various schools of thought. It is especially associated with the attempt to merge and analogize several originally discrete traditions…*and thus assert an underlying unity (Wikipedia, my emphasis).

This means that in practice 'Traditional African Medicine' is all the more inseparable (and functionally fused) with other practices and traditions. We noticed such syncretism on three different levels:

1. *Home remedies*: There was significant frequency of homemade remedies, made by our informants that literally combined Western over-the-counter medicines with fresh ingredients or traditional herbs to make new hybrid preparations. Examples - Boiling Dispirin, a soluble aspirin, together with fresh ginger (or ginger beer) to make a fever-reducing hot drink; another made the same mixture adding tea from gum leaves. This is syncretism at its purest and most literal, like the Christian Saints in Condomblé who are venerated after the fashion of Yoruba gods.

2. *Treatment regimes:* Often the manner in which something was used demonstrated a local cultural *'appropriation'* (Miller, 1991) of a product and a melding of logics. Examples - Vicks Vaporub (from P&G) was not merely used alone as soothing relief but as one crucial element in a whole regime (with other components) for "sweating out" a fever. In another example a popular headache powder was mixed with Vaseline and applied directly to the body as a poultice to soothe painful joints more (explained as more powerful relief than taken internally).

3. *Medical theory*: There were also signs of 'conceptual unification' typical of syncretism. Examples - The mother of our only known informant who was HIV+ spoke of using a traditional herbalist to get her son *muti* not in order "to remove impurity or disequilibrium" as in TAM (Hewson, 1998;), but, as she said, "to boost his immune system" - expecting the potency of a substance from one medical ontology to have an effect on an entity within another. In a non-syncretistic system these ontologies would be incommensurable, but is here illuminated by knowing her son was also taking the full complement of anti-retroviral for the same reason. This is how traditions of practice conflate; as different means toward the same aim - thereby pluralism begats syncretism. In other words, syncretism seems to be a kind of 'strategy' born out of an overwhelmingly practical orientation, rather than a confused or mystified one as commonly believed. Similarly, other informants said they used traditional remedies to combat "stress" and "psychosomatic" ailments – because that was what they had on hand.

The syncretistic mechanisms were put in place when western OTC or 'patent medicines were disseminated widely through the culture (at a time when there was little

access to western doctors in 'native' urban areas) and the only 'institutions' were traditional healers. But then as now domestic DIY healthcare was probably the mainstay and people began experimenting with the 'new' and the 'old' medicines at their disposal. From the 1930's onwards Grandpa headache powder and Vicks Vaporub have been pluralistically used alongside traditional 'African' medicines and 'home remedies; gradually interpenetrating into the hybridized 'folk medicine' that predominates in the townships today.

So rest assured, dear reader, if worried that nothing of 'local' or 'African' culture remained in township health practice; syncretism is not 'westernization', and both sides of such a pairing 'bleed' into one another. The strongest evidence for this is what our informants felt they needed to ***add to*** or ***take alongside*** the 'western' medicines they used. There was a systematic pattern here that we shared with our client; in Southern Africa medicines needed to be more experiential. It was good to know something would work (empirical criteria), but better to also ***feel*** it working (cultural criteria ***cum*** empirical evidence). And the form that the 'evidence' should take was highly shaped by South African culture and preferences. Soluble aspirin alone may work, but taking it as a hot drink along with the burning taste of ginger is believed to make it work much better (and therefore preferred).

Consequently, Dauskardt goes too far in speculating that Western pharmaceuticals have conquered "the consciousness of medicine" (1990:282) in urban South Africa. What they ***have*** done (in line with this paper's focus on practice over ideology) is capture a large share of medicine's ***modus operandi.*** Some practices of 'Traditional 'African Medicine', especially its herbalism, may seem to have been re-configured in the image of Western over-the-counter medicine. (But you could equally say herbalism had 'grafted' onto it after it was unloosed from traditional healers by 'internal market forces'). Whatever your choice of metaphor (military or botanical – though which has serious implications) herbs, like OTC remedies, are now something you can recognize a symptom for, conveniently buy, then administer yourself. In this one can also say that certain characteristics of western medicine dovetail with the spirit of the times and the more 'protestant' character of township dwelling 'consumers' - who in a shocking parallel to ourselves are indeed concerned with time and money. Which is not surprising given they all live in a big city, work 8, 10 ,12 or longer hours a day, commute some distance to work, and can afford little time off to be sick.

Given the current nature of urban healthcare that I have been describing throughout this paper, and the fact South Africa is now 57% urbanized and due to continue at 2.9% a year, (Unicef, 2004) we believe the 'disembedding' of TAM will continue. We would furthermore argue that the essentialistic construction of 'Traditional 'African Medicine', in leaning heavily on its metaphysical basis and the ministrations of healers (my title-transition could almost equally have been 'from healers to herbs'), fails to acknowledge the reality of everyday healthcare for a growing majority of the population, tying its practices to an imagined place in the rural past. Consequently, I believe TAM as a concept should be displaced in favor of an African medicine drawing more loosely on the following characteristics:

- *We treat ourselves whenever we can* (self-help/DIY medicine, OTC drugs, home remedies)
- We use whatever works – old or new; homemade or commercial; and mix them together (despite source or 'tradition' in a way characteristic of pluralism-syncretism)
- *We use local ingredients for remedies whenever we can*, especially. herbs "from the African soil" (as Rastas might say) or simply "things from the neighbors garden" (as one Colored family put it)
- *We want treatments in which we feel the healing* (other formats in addition to pills, such as; rubs, hot drinks, poultices – manifesting culturally favored sensations, e.g. burning taste, sweating out fevers)
- *We draw on treatments and recipes handed down informally*, from 'the elders', family, friends, and 'folk knowledge'; not only 'experts' (healers or doctors). (The sense of authority of our medicines can thereby be said to feel 'traditional' – even if not located within a specific 'tradition').

This is what we analogize as the 'protestant re-formation of African medicine'. It is revolutionary in breaking the misleading conceptual entailment between something being 'African' and therefore necessarily 'traditional'; it accounts for one of TAM's most vibrant constituent parts 'urban herbalism' where TAM cannot; it encourages an increased sense of personal power and agency in its users, making it in tune with macro forces in the culture and a good descriptive model of personal healthcare in South Africa today. Therefore, we believe this 'protestant re-formation' should be an effective reference for the development of over-the-counter medicines in the region.

Innovation According to the Protestant Re-Formation

What we uncovered in this project was a fascinating example of cultural change; when different traditions and practices rub up against one another altering each other in the process. If it appears that 'Traditional 'African Medicine' has been discarded, and then in part re-made by thousands of township residents along the lines of allopathic medicine, this picture would be overstated. Some of its metaphysical basis - at least for healthcare - *has* been marginalized, but herbs of African origin have also become more appealing and accessible to audiences (such as Coloreds, Indians or Whites) who have no background in African 'ancestor' theories, as well for many Black South Africans who would not believe they had the time or money to spend on traditional healers. [9] This arguably extends the reach of African medicine even while going beyond its 'traditional' basis. Purists might say it is the death of TAM, others that it's merely a transformation – a scholastic and irresolvable debate. On the other hand, we must add that most proponents of TAM want to reconstruct a more explicit model of 'Traditional 'African Medicine' from out of its oral culture in order to give even its 'diviners' *(sangomas)* something like the full treatment of Weberian rationalization (regulatability, calculability , predictability) (Ritzer, 1993). This is so that that it may serve as an alternative state health system standing alongside (yet integrated with) the western biomedical one. Arguably, turning TAM into such an 'art museum' (Rosaldo, 1989) would

wreck a more profound change on this historically local and situated practice than any of the bottom-up adaptations we have observed.

While officializing TAM may do something for the cultural pride of elite Africans, Africanizing political parties, or Western academics wishing to take "progressive" stances within their own fields, the only study I can find on the subject, looking from a community (not policy) perspective, suggests many at that level do not think their primary healthcare will improve if traditional healers are officially integrated into it (Van der Geest S.; Geest S; 1997). Our evidence would tend to agree that such a move would be unlikely to better serve its urban audience at least. This is because I believe the pluralistic-syncretistic amalgam of practices we have been describing already amounts to an integration between the Western and African traditions - and one that works like a kind of 'customized solution' for its 'users' who have in fact been adapting and appropriating it for generations (as historical agents effecting their own cultural change).

Thankfully however, our task was to inform P&G's OTC product strategy, not advise on healthcare policy to the South African government. And for this we realized our conception of a re-formed African medicine was a powerful guide. Unlike a strategy based on a scholarly view of different medical 'traditions' that are becoming increasingly 'disembedded' from the context that gave birth to them; we realized the principles we had observed at work within the transition from medical pluralism to syncretism amounted to a kind of "embedded innovation" framework that was still vital and emergent. Instead of innovating from the outside (say at P&G's headquarters in Ohio) then trying to "understand the local culture" and sell the product using knowledge of what they find 'appealing' (and hoping it will connect with actual product properties), we were turning this process on its head. Our method was in effect innovating from within the culture by borrowing its own principles of health practice innovation (as well as some of its recipes and formulations).

What we had stumbled across in this reversal was the contrast between two very different conceptions of innovation. For new product development the standard corporate model draws on Roger's 'Diffusion of innovations' theory (1962) which basically erects a 'black box' around the *emergence* of innovation (singular events from heroic inventors or companies) to focus on its main problem of how to spread new products through a process of persuading first adventurous 'innovators', then 'early adopters' etc. to buy and use. Opposed to this is a much less well-known tradition, inspired by the economist Joseph Schumpeter's (1971) writings on entrepreneurship and the anthropologist H G Barnett (1953) who sees innovation and diffusion as two stages of the same process; based not on persuasion, but on the rational fit of an innovation to meet actors wants and needs once they have encountered it – by imitation or accident. On this view, innovation is socially embedded, akin to anthropologist Stephen Gudeman's "peasant innovation" (1986, 1991) which relies "upon using existing materials, seeing them in a new way, drawing upon and adding to the store of cultural knowledge" (1991:147). This is an apt framework for understanding the dynamics of the 'folk medicine' we believe to be the core repertoire in urban South Africa. It describes both why it is so mixed across traditions; why it does not

have or need formalized experts; as well as how some of its syncretistic combinations came about. Reconstructing one case study, we imagine that after P&G introduced Vicks Vaporub into South Africa about 70 years ago, some found it was not merely a soothing topical decongestant (as the company intended); but that used in combination with other measures (hot drinks, being wrapped in blankets and going to bed) it was an effective catalyst for the 'sweating out' of a fever - the usual local treatment for flu. Word spread; it caught on, and joined the dominant 'cultural knowledge' as a treatment for *this* purpose. By the time of research, Vaporub was a well-loved mainstay in most of the households, provoking rhapsodies of appreciation. It is always encouraging when a framework can work in reverse to explain success (in this case the product also just happened to hit all the culturally desired experiential buttons, being both a rub and having a burning sensation). But since as Gudeman allows "such innovatory processes occur continually" (1992:147), we knew we could work these principles forward to generate new product ideas as well (inspired by the possibly newer and equally widespread practice of boiling soluble aspirin with some kind of ginger). By following the characteristics of African medicine's 'protestant re-formation' as our 'principles of combination', we came up with palettes of options for mating sensations and active ingredients; tastes and formats that referenced the cultural cues for healing with other medicines that delivered results; mixing the traditions of Western medicine with African herbs just as we had seen our informants do in their kitchens.

One of the advantages of ethnography is that it can powerfully connect you to this kind of embedded innovation if you follow the cultural transitions on the ground (over merely listening to the 'experts' or 'guardians' of traditions). We argue seeking these embedded frameworks of innovation will be particularly appropriate and successful for companies doing new product design in the developing world. For here, even though a practice may be 'proven' by intensive social use (people already doing it at home) often no provider will have yet brought out a product filling this 'market' gap – because no one else is close enough to its daily context to spot it.

If we had accepted much of the standard knowledge on medicine in Africa, the proposed OTC medicines would have more closely resembled those of the past. P&G would have felt less comfortable to draw on local culture and create hybridized products believing it had little authority to do so. Knowing how saliently Vicks Vaporub had inadvertently fed into the folk-medical culture of South Africa, instilled confidence and a spirit of innovation (as well as its process) that we could do even better by design. With the aid of our embedded innovation framework, by following the same principles of creation as our intended audience, a healing, burning-tasting, syncretistic (recognizably 'African') product was put into development at project's end.

Notes

recruiting and language assistance (Zulu, Sotho and Xhosa) in Johannesburg and Cape Town. For reviewing the paper further thanks goes to: Yvonne Sanders-Hamilton, Nick Harrington, Melissa Cefkin; and Nina Wakeford.

[1] Coloreds are a mixed race 'ethnic group' in South Africa descending in part from former slaves imported (initially to Cape Town) by Dutch colonial authorities from areas of present day Malaysia, Indonesia, India and other parts of Africa and South East Asia. Most speak Afrikaans as a first language and many in Cape Town follow Islam. 'Colored' was an official racial category in apartheid South Africa; and although now a contested term persists as the designation for a variegated assortment of historical communities. For more on the history of this 'name', those it refers to, and their current status see (Martin, 2001)

[2] Uncovering these deep layers of knowledge was an important realization we brought to our client: that although this new target market was 'lower income' and often not formally educated, they were extremely sophisticated healthcare 'consumers' who would critically evaluate any new products by making wide comparisons.

[3] 'Knowledability' or reflectiveness is a key foundation for Giddens theory of 'structuration'; as it is almost a pre-condition for the exercise of agency, "all social actors know a great deal about the conditions and consequences of what they do in their day-to-day lives" (Giddens, 1984: 281). Most of our informant's sense of mastery and competence over their healthcare was something that struck us profoundly in this research.

[4] 'Pragmatic' is to be understood here not in the colloquial sense of making compromises, but in the sense of the American school of philosophy known as Pragmatism, in which "the meaning of an idea or (in this case, treatment) lies in its observable practical consequences". *American Heritage Dictionary*

[5] In a noted exception which proved the rule, the single informant (a Black Rastafarian in Johannesburg) who did make overt ideological statements about healthcare preference showed more complexity in practice than in his verbal testimony. After stating "We need to get back to using what was here (in Africa) before Western Man brought his gripe water…" and describing remedies he made from local herbs; he went on to enthuse about his affection for Dutch patent medicine, how he had grown up with it in Lesotho, and then show us a wall chart from the leading company 'Lennons' which he frequently used to diagnose and administer these medicines to his children. (Lodestar/P&G, 2004).

[6] Rather we heard just the opposite from a Black female informant in Gugulethu Township, Cape Town: "You can't say what kind of medicine is best, everyone has their own beliefs about what works for them." (Lodestar/P&G, 2004).

[7] Dauskardt succinctly explains this change in supply, "The emergence of herbalist stores and of herbal pharmacies constitutes the major transformations within the organisation and structure of traditional herbalism in an urban area." (Dauskardt, 1990:281) However, he addresses the herbal side of the equation without analyzing its relationship to TAM as a whole.

[8] No one can estimate with much precision how many (or how often) South Africans consult 'diviners'; but as Hewson acknowledges most healers' work actually comes from "protecting" clients by offering "propitiation for real or possible offenses" (Hewson, 1998) e.g. by offering charms to ward off evil or bring love or success. This is a matter we might say is more concerned with 'fate' than their 'health', akin to what Ashforth has referred to as the "witchcraft paradigm" (2001). It is my contention that this paradigm is undergoing the transition of being subdivided off from a more physically-grounded understanding of 'health'. But neither here nor anywhere in this paper do I imply a teleology in which Africans are inevitably moving toward a rational-secular view of the world. I only note where these differing mentalités impinge on one another, overlap, or give ground.

[9] There was eloquent testimony from one household which embodied this theme as well as the transition focus of this entire paper. A Black woman in her 20's, after telling how she often treated flu and headaches with nearby herbs "Not quickly running off to the Doctor", responded thus to a question about traditional healers: "No, I wouldn't (see a healer) ever. I don't believe in them." On pressing for reasons why, her mother offered "They are very expensive, and they can tell lies sometimes."

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'Global Events Local Impacts': India's Rural Emerging Markets

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The paper attempts to analyse rapidly changing rural Indian socio-economic landscapes from a recent empirical study of rural PC kiosks. Rural contexts in India are essentially composite and digitally immature communication ecologies. Some of the questions we wanted to answer were as follows: How do computing technologies find their way into a rural community? Who are the people driving this technology? How technology is being received by the community? Breaking away from a committed long-term participatory ethnography in a bounded field, we consider an array of wider contexts and a repertoire of methods available for qualitative research to study societies in transition.

Introduction

Our paper attempts at subjecting rapidly changing rural Indian socio-economic landscapes to ethnographic scrutiny. Through a study of PC kiosks struggling to survive in an immature information and communication technology (henceforth ICT) ecology, we visit technological interventions in social contexts under the influence of a dynamic Indian political economy and the interests of multinational corporations. Rural India is a potpourri of villages and village like towns with varying levels of urbanity in them. Transitions in village India, can be cast in terms of exchanges between the rural and urban, the pre-technological and post-technological and from people-focused to technology-focused ethnography brought in by our own research agenda.

From our recent empirical study about rural PC kiosk entrepreneurs, men and women who run computer centers as businesses in rural India, we noted the need to go beyond standard ethnographic techniques and imperatives of classical anthropology. Not just to make our work relevant to industry, but to do justice to our study of the kiosk entrepreneur (henceforth KO). Some of the questions we wanted to answer were as follows: How do computing technologies find their way into a rural community? Who are the people driving this technology? How technology is being received by the community?

Disciplinary social anthropology began with a locational bias and continues to grapple with framing the local against the trans-local. Anthropology circles have recognized the lack of fit between problems raised by a mobile, globalizing world and the resources provided by a methodology originally developed for studying small societies. If we consider a repertoire of methods available to do qualitative research, a different set of research

questions present themselves compared to committed long-term participatory ethnography in a bounded field. In this paper we specifically address the question of how we manage this methodological repertoire and how we make choices to use these to suit our field.

In particular, the nature of our field underlines the fact that long amounts of time spent living in the field and observing "the other" as participant did not seem to be the optimal way to answer these and related questions. The method we adopted instead, was less longitudinally intensive, but broader in scope. In this paper, we discuss the geographic breadth that we needed to explore, as well as the breadth in terms of influencers who ultimately impacted an individual kiosk entrepreneur.

In terms of geographic breadth, we conducted ethnographic studies of 12 villages, each with a rural kiosk, and additionally expanded our scope to nearby towns and cities the kiosk entrepreneurs were known to travel. As for breadth in influence, what makes rural kiosks interesting is that dialogue about them exists among the most privileged and powerful people in India. The President and the Prime Minister of the country are on record discussing the applications of IT in rural areas, and leaders of India's booming IT economy are similarly engaged in discourse about rural PCs. As a result, it's necessary to take in as data, government policy documents, interviews with technology leaders, and so on, few of whom are anywhere to be found within the physical space of a rural village, when understanding the rural kiosk entrepreneur.

We note that in order for our work to be relevant to industry, we had to constantly consider the kind of insights that would be of value to a corporation like Microsoft. One point of interest is that, for a company the size of Microsoft, the organization itself contains many sub-entities, each with its own agenda and biases. Understanding these was also necessary when framing our research.

Finally, we go beyond generalities and average behaviour to understand how people in particular contexts cope with, interact and develop strategies for new technology interventions. Our geographic field expanded to accommodate wider contexts that are actively influencing the focus of our study. Here, we adopt arguments from Marcus on multi sited strategies '...of doing and writing ethnography as a response to studying cultures increasingly in circulation…'(Marcus 1998:5) The idea was not to critique doing ethnography but to reexamine its field practices to study 'unfolding' social processes.

Why India?

The truly dizzying array of geographies, cultures, religions, races, and tongues combine to create a human dynamic which is both a strength and challenge particularly to

> *marketers who want to achieve efficiencies with their product offerings and communications*[1]
>
> *The morphing of rural India beyond agriculture: Rural India has reduced its dependence on agriculture. A little less than half of rural GDP is from non-agricultural activities. This is creating a different kind of rural market. NCAER occupation data shows a decline in cultivators and there is enough evidence of dual-sector households. Add to this the exposure levels of the top end of rural society through television, and the rural market is becoming closer in its mindset to the urban market. This is already happening in the more developed higher-income states*[2]

For industry, India presents a good case study of communication technologies since there is much optimism in the country about their reception and integration into the everyday life of its citizens. The social consequences of these technologies are often dependent on several causal factors and have partial and inconsistent impacts on populations. By some estimates, there are 150 rural PC-kiosk projects across India. Such projects could provide the first computing experience for as many as 700 million people in India (Toyama et al 2004). In this paper, our approach to understanding kiosks focuses on the strategies of kiosk entrepreneurs to make small businesses out of kiosk operations. India's IT industry is seen as a singular route to opportunity and access to employment and livelihoods on the one hand and hip life styles and global cultural exchanges on the other. Reflections of these structural changes cannot but be felt in small village communities either through infrastructural changes wrought on by the demands of a developing economy and/or the direct arrival of digital culture in their midst.

In India, where ' language, context, culture change in every few kilometers' potential IT users belong to a very large and highly diverse groups of which many are illiterate, a close look at these populations to understand the social context of software technologies becomes imperative. (Nielsen 2006)[3] Contexts that are receiving this technology need special attention to be able to see linkages between them and the reception patterns in its 'every day'. Recognizing the complexity and diversity of Indian social landscapes were first steps to understand ICT applications in these contexts. Subject villages were one of the first recipients of ICT that arrived through a series of human interventions not exactly engineered by the recipient village or its communities. To understand socio-cultural contexts of these recipient villages we undertook profiling their social demographics and communication ecologies.

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[1] Fundamental country knowledge; India, CMRI-Emerging Markets Research, Microsoft internal report, May 2006

[2] "The new improved consumer… but the marketers are ready" Rama Bijapurkar, http://www.businessworldindia.com/Dec0803/coverstory01.asp

[3] Nielsen, speaks of ICT applications from an HCI, user centered design perspective, wherein context sensitivity becomes crucial while creating tools for cultures far removed from western social realities. This approach may help reveal cultural biases embedded in IT applications and may open up design and developments of new HCI methods and techniques

We limited ethnography to what it can say about the macro context through 'strategically chosen local determinants' (Marcus 1998: 46). To open up the larger field to diverse local sites in which they are relevant, we ventured to ask two sets of questions;

On village communication ecologies; It is evident that communication ecologies, especially in a developing region like India, are a composite mix of media, personal/impersonal, formal/informal and has many people, media, activities and relationships interacting and evolving over a period of time. It is important to map and record what is changing and partial in these ecologies. We were alert to the state and private initiatives differently impacting availability and access to media technologies.

On managing rural ICT businesses; Measuring or finding indicators for any phenomena, for example the business of running PC kiosks lead us to answer the following questions; what does it mean to do an ICT related business in a rural area/community? Its relationship with the larger structure/processes of the community that sustains it? Who are these business men? What forms do businesses take? What makes them good businesses? What are the survival strategies to keep these afloat? How are they organized? What are they most concerned with? Would/what technology make a difference?

Foregrounding Debates

Since our focus is the rural PC kiosk, its immediate social context, its functioning and the kiosk operator/manager became subjects of primary research. Conventional field work took the form of locating and mapping socio-economic lives of kiosks; record its monetary gains/losses, profile kiosk operators as social actors, and undertake surveys of communication ecologies and socio-cultural profiles of villages. The idea was to arrive at a comprehensive picture of rural contexts in which kiosks operate and ways in which operators develop a sense for business opportunities in composite and digitally immature communication ecologies. This breadth of study also affords a structural view of village communities, the interrelationships between village infrastructure and changes occurring from state policies and developmental incursions, and consequential impacts for socio-economic and consumption patterns (Rangaswamy 2006). Before we got to the field, it was important to scan several 'other' sites to foreground and inform data collection; We had to acquaint ourselves with on –going debates on rural ICT from state policy documents, interviews with technocrats and literature around development debates.

The spread of ICT's has added to the variety of media technologies available to people and debates around its impacts. Various actors have converged on the idea of communications technologies to augment development and business prospects for hitherto overlooked rural communities. One of them is information and Internet access through a PC kiosk. Rural kiosks are computer kiosks in rural areas with one or more computers, generally owned and run by independent entrepreneurs (Kurien et al 2006). We began by adopting an

ethnographic approach to make sense of the complete range of social processes that come within the range of managing the business of PC kiosks. Doing ethnography in these villages is to gain a perspective on the entire social setting and relationships seeking to contextualize these in wider social processes. The wider context, in this instance, can be eluded as a globalizing economy affecting the villages in western India and offers up front the methodological challenges of ethnography to map rapidly changing social landscapes.

Today's anthropological field in an interconnected world, when territorially fixed communities or stable local cultures are fast disappearing (the idea of isolated people living in separate worlds). A field site, however bounded, is also an active recipient of larger political and economic dynamism and their fall outs. This leads us to ask: what kind of knowledge ethnography produces – by what method? For whom? About whom? By whom? To what end? Is 'the field' an interlocking of multiple socio-political sites and locations, offering diverse forms of knowledge from different sources and locations? From the first jotted down observations to the completed book, several processes affect the way in which a social group is registered and analyzed to make sense to the larger audience (Ferguson et al 1998). How do we position varied sources providing knowledge/information on our subject to arrive at a logical ladder leading up, from India's changing economic polices to the running of a PC kiosk in a village?

Several socio-political discourses from diverse domains of knowledge gave key insights to frame our study of rural ICT markets. The state has a stake in ICT for development projects[4]. Influenced by debates around bridging the digital divide in resource-stressed ecologies it launched several rural projects. These efforts were also underscored by the vision of bringing employment opportunities, infrastructural growth and community well being (Jhunjhunwala 2000a)

The same debates around ICTs primarily driven by non-government organizations, focuses on ICTs for development and frequently point to shared access models as critical enablers of sustainable development and digital inclusion (Best and Maclay 2003, Corea 2001, Haseloff 2005, Keniston and Kumar 2004). In development discourses, communication technologies are viewed as development tools and technology becomes an agent of change leading to prosperity for a majority of citizens hitherto excluded from the fruits of progress. This vision of ICT's does not go unchallenged. Literatures have called attention to the challenges of national projects dedicated to digital equality for its citizens

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[4] 1994 was a major turning point for India's engagement with ICT's. The 1994 National Telecom Policy (NTP) laid the foundation of allowing private sector to operate Basic Services. This policy document attempted to clearly enunciate the goals of the liberalization process. In 1997, establishment of Telecom Regulatory Authority of India (TRAI) was a major gain leading to 1998 Internet Policy, Around the time, the Indian software and services industry grew from $12.8 billion in 2003 to $17.2 billion in 2005 -- a 34% increase (DIT, 1996-97, 2005). The IT industry was given a 'bureaucracy free environment' for prospective investors in the late 1990's after India's economic reforms took off the ground. This marked a shift from the era of state planning in industries and businesses to a new ideology of more local ownership and private initiatives (Nayar 1998). Following the development of India's national strategies for ICT, the government made a concerted effort to bring low-cost connectivity and ICT enabled services to the 'rural masses' (Pohjola 2002).

(Colle and Roman, 2003 Dragon 2002). Along these lines, a public-private collaborative effort has launched the ambitious 'Mission 2007-Every village a knowledge centre' for achieving a knowledge revolution in India[5]

Technology innovators are major players in this arena. 'Disruptive technology', seemingly, was the key word in shifting the debate on low cost/high-utility technology for emerging markets and consumers. Disruptive innovation suggests that existing mainstream markets are not starting places for waves of growth, and there is need to "incubate technologies from ground up rather than introduce top down" (Christensen 2001)[6].

One particular initiative was a joint effort by engineering scientists in academia and industry. Faculty members at IIT Madras of the Telecommunication and Computer Networking (TeNet) group took upon themselves to pursue such R&D and found success and recognition.[7] N-logue, a private company in league with TeNet, has introduced 'disruptive IT', setting up Internet kiosks in several rural parts of India. Bringing ICT into virgin territories, for TeNet and N-logue, is not a government/NGO supported/subsidized process but linked to doing business with new groups, creating a business environment wherein the local unit can afford buying power and use technology profitably. For them, disruptive technologies will target the poor, drawing them within the market economy such that the transaction is enabling and empowering, and will create active agents in the circulation of capital, cash and material well-being. The fact that rural India contributes significantly to the national GDP makes immense business sense to enable rural connectivity, while at the same time the Internet becomes an enabling technology.

Private corporations took interest with equal enthusiasm, driven by both, the business prospects of ICTs in emerging markets and the vision of positive impact through their products. The study has immense interest for Microsoft as it forays into emerging market economies making concerted efforts to engage with rural spaces. It is in the process of rolling out projects that take the benefits if IT to rural India to develop content and applications aimed specifically for the rural segment. The company is partnering with key players to accelerate the adoption of these services. The interest in rural India is aligned with the overall vision of the Indian state and technocrats about their role in viewing IT as primary driver for social development[8]. Microsoft India has decided to enter rural markets through a project called 'Saksham' (meaning self reliant) that will tap local entrepreneurs and

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[5] Enunciation of these ideals can be found here http://www.mission2007.org/mission/ and http://www.mssrf.org/

[6] According to Clayton Christensen, these are "simple, convenient-to-use innovations that initially are used only by the unsophisticated customers at the low end of markets".

[7] The group has developed the CorDet and the WLL telecom and Internet systems, which would cost about a third less than normal. These are decentralized access infrastructure technologies that would not only function in a harsh environment (high temperature and power fluctuation) but would also require significantly low initial investment (Jhunjhunwala 2001).

[8] A press report on the MS initiative, http://news.moneycontrol.com/backends/News/frontend/press_releases.php?autono=200736

help spread <u>IT</u> in areas that remain untouched by technology. Saksham will help people set up information kiosks, tie-up finances for entrepreneurs through banks and involve local people for developing relevant applications for mass use. The company would initiate 50,000 rural kiosks in three years. Currently, six lakh Indian villages have around 14,000 kiosks, according to a Microsoft research[9].

Thus, powerful but often faceless institutions – the government, NGOs, technologists, corporations – all have a stake in the rural PC kiosk, which of course means that any study of the kiosk entrepreneur is incomplete without an understanding of the motives and policies of those institutions.

The Field and Its Subjects

"Yahoo Messenger is probably the only means of communication other than physical travel"[10]

Our subjects of field study were the 12 internet kiosks in rural India. A kiosk typically allowed customers, to browse, send mails, chat, offer on-line health consultancy, agri-consultancy, e-governance and on-line university admission. Off-line activities include teaching basic computer courses, digital photos and web-astrology. E-governance services, often available in kiosks, issue relevant government documents and identity certificates to clients digitally, thus saving time, money and rendering the process transparent.

The social origins of these kiosks were shaped by the following agencies; India's stated IT policies, corporates that were engaged in rural tele-com markets and evangelizing, technocrats passionate about creating viable and affordable technologies for underserved populations and regions and developments pundits who were equally passionate about bridging the digital divide.

The 12 PC kiosks around Pabal village, Maharashtra, Western India, had a local person running each of its PC kiosks. The kiosks were linked to several players in the rural internet connectivity service providing tier. Vigyan Ashram, an NGO in the village of Pabal, operates as the of local service provider, LSP, for internet connectivity in village kiosks around Pabal, bringing ICT for the first time to these landscapes. A private company, n-logue, in partnership with Pabal LSP, builds infrastructure for wireless internet connectivity. Both players are responsible for ensuring appropriate hard ware and soft ware packages, timely servicing and trouble shooting and a worked out financial arrangements by which all parties share and manage income from kiosks. The partnership was the combined result of state initiatives bringing IT to rural regions, corporate vision to steer growth of

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[9] http://www.ciol.com/content/news/2006/106020111.asp

[10] Quote from a KO from a village with no telephones and his PC kiosk being the only tele-com presence(Rangaswamy 2003)

kiosk/internet user markets, and the desire of local entrepreneurs to pull technologies and make home villages tech- savvy communities.

Given the fact that technology arrived due to initiatives at a macro level, we found the business of running kiosks towards sustainability were largely driven by the KO's keen sense of business acumen and passion for computing technology. They also sensed acute constraints in the form of the multi-party dependency in ICT ventures on extraneous players and agencies. The internet becomes a very expensive and frustrating experience to both owners and clients of kiosks when hardware break down and a minimum of nine hour power cuts a day anywhere in rural India being the norm. The state, on the one hand, brings initiatives with much fanfare; make huge promises, dole out finance to kick start rural projects. On the other hand, they fail to persist to lend support or address the crucial goal of long term infrastructural assets for IT driven projects. All of these urged us to focus on the operators who were still holding on to their business and in some cases, finding creative ways of using kiosk resources.

Our initial work was around collecting base line information about the beginning of each kiosk, the motive behind investing in ICT, and the kind of financial and social support structures prompting this decision. We profiled KO's and social contexts in which they live and run their Kiosks. These include social positions of these individuals, family status, economic class/ landed status, educational levels and attitudes towards pulling technology into business. Apart from core interviews, we profiled the communication ecology and social demographics of villages hosting kiosks. This aided in locating the immediate and surrounding socio-economic contexts of kiosk business. We recorded existing social structures of community life including communication. Details of village geography, social structures, economic/agricultural patterns, water and electricity resources, migration, literacy/occupational levels and other demographic details were collected. Recording village communication patterns and presence of mass media were crucial to our study to give us a sense of the demand for communication, news, entertainment and opportunities for kiosk business. These included an actual count of telephones, land line and mobile, approximate readership of newspapers, cable TV connections, usage of postal services, estimates of audio-visual merchandise consumption and how do migrants keep in touch and transfer money. Data was also collected to get an idea of popular TV channels, soap operas and mega serials.

12 villages, home to 12 PC kiosks became our situated anthropological field. Six kiosks make healthy business, four struggle but stay afloat, and two were temporarily shut down. Healthy kiosks have specific social geographies intersecting with industrial/urban belts that bring significant floating population with a need for internet services. Two of these began by attaching kiosks to a flourishing business of teaching basic computer courses. One of these is a village bordering the outskirts of Pune city and four hours from Mumbai and part of a reserved green belt offering a unique opportunity for its residents to work in urban districts and live in a village. Most people in this village commute to work and it boasts of a railway station with 17 trains passing through in a day. The other village is again stationed on

the fringes of an industrial belt, is a religious location drawing devotee tourists. The third 'fringe' village with a busy highway splitting through is attached to a medical pharmacy. Around 4000 mobile phones, by rough estimates, are to be found amongst its population of 10,000-12,000.The fourth village of Kendur, needs special mention for its enterprising KO adapting to local demands, shifting kiosk services and tweaking technology to meet them. The fifth village, in the healthy lot, transformed its socio-economic profile after agricultural lands were annexed by the government to develop an industrial belt. In the wake of new employment, in-migration and floating population, the kiosk began making revenues from internet services, e mail and chat. The KO, enthused by the socio-economic boom in his village, has plans to develop real estate, a shopping mall cum movie multiplex, to attract temporary inflow of potential consumers of this space.

Elements of urbanity and porosity in village social contexts turn them to receptive agents of ICT's and create an organic demand for their services. Steady inflow of new employees seeking new employment, encourage cash based market economy bringing in its wake the demand for personal communication devices and mobile phones. KO's in these villages manage to adapt kiosk business to new local demands for communication technologies. Incidentally, on of the successful KO is a dealer in mobile hand sets.

Incidentally, all 12 villages have at least one computer housed in one of their schools, some having up to 10! They are in various states of use or disuse as the case may be with some schools having trained teachers. We noted a co-relation between healthy use of computers and dynamic village contexts: proximity to elements of urbanity and good transport infrastructure seemed to play a crucial role in mediating consistent usage of computers.

Mapping communication ecologies of subject villages, made us notice inflections of urbanity and mainstream popular culture weaved into the social fabric of village communities. All 12 villages show very high TV viewership with significant private cable connections. A village with no cable TV service provider had 50 families sharing a privately owned dish antenna[11]. Rural India's links with the mainstream (read urban) happens through social routes carrying popular cultural forms. Print, video and motion picture technologies aid and become prime mediating agencies. The internet is understood from a popular matinee idol hero surfing the net even before the local school gets one.

Technology Evangelists in Rural India?

If particular village contexts proved successful providing a toe hold for ICT's, KO's in these villages initiate and respond to the intermeshing of new technology and village

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[11] Here, we make an interesting assumption. Computers viewed as source of entertainment could be a dominant mode of associating with the PC in rural regions. The existence of significant satellite/ cable TV viewership and consumption of audio-video merchandise in each village validate the above contention.

context. They are primarily situated in a socio-cultural world, be it an urbanizing rural landscape or a mixed media environment with mobile telephony and satellite TV, affined to strong social networks as bearers and transmitters of information. It is becoming clear from our village ethnography that technology and social contexts feed on each other to shape landscapes. Much depends on receptivity and social costs of technology to feed imaginations, prod human agency to learn skill sets, open businesses or take technology further to meet atypical demands[12].

Operators find creative alternatives to keep kiosk business from sinking. KO's have shown immense enthusiasm in driving the PC kiosk business initiative and detecting commercial possibilities assumed non-existent. These individuals are unique to their village environment in the sense that they possessed certain rare qualities. All of the Kos hail from farming communities with both or one parent practicing active farming. Most possess graduate/post-graduate degrees and have either studied or worked in urban centers. Out of the 12, 4 KO's are post-graduates, 6 graduates and the remaining 2 non-graduates having a basic diploma in computing skills. They are the first generation in the family to attain a college degree. They have made decisions, in some cases giving up active jobs, and reverted to native villages to start self owned business. We soon recognized in these individuals, pulling ICT into their village milieus, some specific and special personal qualities. All of them are probably among the less then one percent of the village population who have a graduate degrees, worked in urban settings, have active socio-professional networks fetching them business and cheap infrastructural hardware and above all a tech-savvy sensibility that these personal/social experience provide to push them to adopt technology in underserved ecologies. Many of them articulated personal drive in bringing technology to their homesteads.

The more enterprising the KO the more is the business coaxed out of latent demands creating active markets out of them. They attribute persistence to a strong belief, glamour not with standing, in ICT's and their commercial visualizations. They managed business making most of what is available; car batteries, LPG cylinders are used to power the PC during frequent electricity cuts.

It is interesting to see how desktop PC's attract other hardware/technology attachments to meet popular demands. Xerox/scanner/printer/Fax/web cameras are popular attachments that attract clients to the kiosk. Photo shop is a very popular application

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[12] As mentioned, dynamic villages with diverse infrastructural facilities being part of industrial/ export zones, pull in business investments, socio cultural expectations and behavioral shifts. For an example, an out sourced Swarovski unit employs young women from local village to create premium fashion products. It may be hard to convince ourselves that they have no impacts on the social and imaginary worlds of the girls and their social groups. All of these create nascent consumption demands that KO's tap in ways to augment business. Kiosk services also depend on village social geographies. Demand for learning computing skill packages has obvious ties with the market and is part of an on-going process of demand and supply. Browsing/emailing happened in those spaces that attracted a floating population from urban areas with prior dependency on these services. Requests for information, whether agri-related or not, brought little commerce (Rangaswamy 2006).

that makes over pictures to suit client preferences. A more enterprising operator will take the camera to the village to look for client and business opportunities. KO's have mentioned the desire for village web portals with dedicated ID's. A KO's brother, trustee of the local temple which is a prominent pilgrimage centre, expressed a strong demand for web sites to enhance and broadcast the visual appeal of such places. Creating web domains for a village and providing virtual space for each family to store their photos are thought as a future market demand. These are growing indications of an understanding that web spaces can accommodate visual representations of village social geographies. Seasonal events, weddings, festivals are attractions making demands for videography. Following success and swell in demand for pictures redesigned in Photoshop, a KO wanted to buy a digital handy cam to shoot weddings and other important events around the village. He is convinced of its business prospects[13].

'PC's should entrench like FM radios and even a road side vendor must see value in using PC's for his businesses' says a kiosk operator who lives in a village, close to the city of Pune and has a busy railhead. Baba Sawant is a rare member of his village in that he migrated to Pune for the government and handled computers from its 'FOXPRO' days. He left the city he was working in and reverted to his village 8 years ago with an aim to begin a computer coaching institute imparting computing skills to clients. He says, 'I spotted the potential of computing technologies to change the face of society. I wanted my village to be one of them'. He has already built a data base of his village demography. He also has a voters list and spotted irregularities in these, 'All this is possible because of the computer. But there are no takers for this information! Sometimes the semi-urbanity in my village is its bane. It has half baked knowledge of everything'. The semi-urbanity he is referring to are the effects, direct and indirect, of several public-private efforts to urbanize rural India, building roads, laying cable for tele-com, promoting schemes to bring computers to rural schools that remain partial and leave much ground to be covered by individual dynamism. Like Sawant, whose futuristic vision of computers in emerging markets posits faith in creating community data bases, e government services and agri-information portals. He runs an agri-interest group updating farmers on information and markets. The very fact that so much is happening in his country is reason enough to post faith in development. "It is a matter of time when villages such as his will embrace digitization in all walks of life with aplomb! It would be great to have a plasma screen display in the middle of Uruli Kanchan that flashes various 'day in the life of his village' social scenes apart form providing relevant information about it…"

Another 'emerging village', as referred by the KO, seeing results of development initiatives through a hydro-electric dam project, has an ICT enthusiast running its PC kiosk.

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[13] Here, it is important to mention several contextual connections with kiosk survival. Why some villages prosper or do better business with ICT, is context-dependent ranging from degrees of industrialization/commercialization, proximity to markets to local consumption patterns. Degrees of urbanity in village contexts support a new crop of diverse occupations increasing the chances of KO's that are quick and creative to transform these to business prospects (ibid ;)

Bharat runs one of the few kiosks that is making good profits from PC based services without tied businesses. These include Xerox, scanning, DTP and most interesting of all, digital-photographs redone in photo shop. His pictures of village folk are nothing short of transporting them photographically to Bollywood type scenarios. He uses a pirated version of photo shop. While this kind of scene spotting has always existed in photo studios its digitization by Bharat to fit the tastes of emerging markets is great tech-adoption. His business has expanded and a partner was found to manage the photo business. Laptops have caught his imagination and he is confident of finding cheap versions of these too! He is soon to begin wedding videography which he considers the 'next big market splash in emerging villages such as Kendu*r*'. Bharat is a commerce graduate, studied and worked in Pune for a while, reverted to his village and is also a local reporter for a national newspaper. He views this as a social resource connecting him to a network of informed people clued in to current events around the village and beyond. Bharat is grateful to the NGO/LSP that got him this opportunity and the company that set up shop and promised him more help. Not much help came, but Bharat is not the one to nit pick. He saw a rare opportunity in these tech interventions and pulled them into his village. Bharat, armed with photo shop, quickly spotted the potential to manipulate images and present tangible visuals of them. "I have village people, now wanting to view images of themselves they probably dream of …I had a young man come to me and ask me softly to Photoshop him into a women… Now, they probe what else this technology can do. How else can it portray me...? I get ideas from my clients and that triggers my creative quest whetting my appetite to get a different soft ware. My instinct for business and the right tech solution had never let me down… Now, I want to edit my own videos through Pinnacle…"

Bharat represents an ethnographic serendipity due to a motley combination of social events leading him to strike profits with digital make overs. His village community interfaced with technology through his efforts to meet latent desires for self- representations.

Global Events – Local Impacts

Choices of ethnographic sites are active negotiations of preference. If corporate research needs to understand rural emerging market spaces, it involves a scrutiny of state ideology and action, engagements of civil society, private players, in short, alertness to the buzz around these sites. My study, through engagements with data from diverse sources, foregrounds the relations between culture specifics, technology adoption and immersion in unexplored territories.

The arrival of ICT's and the repertoire of marketed devices have transformed the communication landscapes in developing nations. This is more of an evolutionary change as adoption rates increase with consumer friendly market tariffs, as further friendly policies are implemented by the government.   It is in this dynamic context that we pose research questions about methodology and ethnographic practice.

Village India is no isolated self sufficient unit, bounded in time or space. It is replete with emerging social processes felt as a result of national and global changes setting its pace and influencing its content. Most societies possess the means to produce local versions, own understandings and adaptations of imported or borrowed material cultures/technologies. Each social unit actively negotiates such encounters. As effects of larger social events reach the village and in turn their own members move beyond village boundaries, may be even around the world, cultural exchanges and experiences inform and inflect one another. In a society such as rural India, where pre-literacy and non-literacy co-exist with literate sensibilities, where oral traditions and visual cultures, iconography and sign systems are an intrinsic part of lived experiences, an entire system of communication such as information technology can take a unique course in the process of entrenching itself. Technologies are mutating to adapt to this. In oral-biased contexts, business practices of a PC kiosk promote visual rather than information services; Mobile and telephonic systems are becoming very popular; Digital cameras are found to be more exciting than a word-processing system – so on and so forth.

As communities/persons negotiate social changes, opportunities, relocate, reconstruct lives, the task of ethnography is no longer in a tightly encased field but a world wide open to external rumblings (Appadurai 1991, 1996). In this case, our field site was one responding to the nascent context of India's open economy and polity and their inconsistent forays into its countryside. We reported on the kiosk operators, as dynamic people who refuse to stay in place, occupy special social locations displaying special skills and capacities. These individuals are products of their own place and cultures alert to social transitions and opportunities

A heterodoxy arising out of these concerns re-examine the field, combining and revitalizing different styles and sites of field work. To investigate and patrol the idea of a field site in the context of wider social and political developments poses its own challenges. The sort of scrutiny foregrounds questions of location and mobility of social persons, the same questions that have cropped up time and again while doing ethnography, now with more urgency. Field work cannot stem exclusively from disciplinary methodological concerns. Reality-imposed limitations of the field urge unconventional data inputs. Contemporary anthropology needs to confront social change and issues arising out of these and engage expertise with politically borne influences. How else do we frame an instance of technological intervention in transitioning rural India?

I end with a quote from a treatise that chose to register a formal critique of classical Anthropology and its techniques of knowledge creation

> *Ethnography is beginning to recognize a flexible and opportunistic strategy for diversifying and making complex our ethnographic forays of people, places and different forms of knowledge from social and political locations available to augment reflexivity and understanding- archives, public discourse, interviews, journalism, fiction and statistical representation of collectivities- all of these make up for a explicit attentiveness*

> *to location a different kind of anthropological knowledge and a different kind of*
> *anthropological subject. A heightened sense of location means most of all to recognize*
> *our study as linked with so much practice that fall outside the purview of the 'field'*
> (Ferguson et al 1998:37)

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Online Place and Person-Making: Matters of the Heart and Self-Expression

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In recent years, there has been a substantial take up in social software, but other than translating the vocabulary and arranging suitable payment facilities, little or no account is taken of cultural sense-making in the global deployment of these systems. We report on two studies of social software, an online dating site and a social network blog. We show that people need 'places' because it is only there persons can meaningfully be (re)presented. Further, 'cultural' perspectives greatly influence and shape the metaphors and models of communication. In our recommendations, we suggest that multinational participants' metaphors about 'place' should be used as tools-to-think-with rather than be implemented literally, and thereby used to enrich a feature set for global services such as online dating and blogging tools.

Introduction

In recent years, there has been a substantial take up in social software, a term that encompasses technologies such as, blogs, wikis, and social networks. For example, as of June 2006, Technorati catalogued approximately 44.1 million blogs. Global companies are providing social software on the basis that "one size fits all", where "all" refers to many, diverse cultures. Other than translating the vocabulary and arranging suitable payment facilities, little or no account is taken of cultural sense-making in the deployment these systems.

In this paper, we report on two separate and unrelated studies of social software that were carried out in a commercial context for a US company with global reach and a long-standing presence in Europe. The studies had clear business objectives aimed at understanding the promotion and payment of services across Europe, which were perceived as understanding the opportunities and potential barriers to their deployment.

The studies showed that consideration needs to be given to making online applications and services more appropriate for multinational users if meaningful relationships in online communities are to be created and fostered. Participants in the studies

directed our thinking by revealing their use of metaphors of place in order to make meaning of their interaction with each other.

In this paper, we reflect on the theory about notions of space and place to show that our findings are perhaps not too surprising. The common sense notions of space and place are conceptually laden and theory has much to contribute. We illustrate that the opportunity to reflect on theory would benefit technology design from the outset.

We begin by describing the two studies, and then we identify issues with the current systems, and illustrate how people make meaning of these environments. We reflect on the theory and show how closer consideration to theory would have benefited the design of such systems. Finally, we recommend a design approach for the development of social software in multicultural settings.

Studies

We discuss two studies, a study of online dating carried out in the UK and Germany, and a study of social blogging carried out in the UK. The studies were performed independently and with business objectives as the focus. Further analysis of the studies revealed how people used metaphors of place to make meaning of the online space.

We begin by outlining the objectives and methods for each study, before we go on to discuss the findings.

Online Dating Study

The overall objective of this project was to gain a better understanding of the goals and perceptions of an online dating site's users to improve the conversion of profilers to subscribers, and thereby, increase subscription rates to the online dating service. Specifically, we were asked to investigate the billing process as a potential source for improvement, given the different styles of payment known to be preferred in different European countries.

We made 12 home visits in the UK and 10 home visits in Germany. The home visits involved an in-depth interview and a walkthrough of the site. The interviews consisted of detailed questions about participants' experiences with online dating as well as their approaches to meeting people in more traditional ways.

Our findings revealed no major problems with the billing process per se, but outlined issues with the provision and placement of subscriber and billing related information. We identified a variety of key themes for positioning and information design on-site, but for this paper, the findings will focus primarily on themes of place-ness and self-expression.

Social blogging study

The objectives of this project were to understand the most relevant marketing messages and propositions for a social blogging service in UK, France and Germany, and to gain feedback on the design and functionality in these countries. We use the term social blog because the service was effectively a blog and a social network combined, where the user could invite friends to look at their blog and to become part of their social network.

Fieldwork was carried out in the UK initially and consisted of 6 preliminary in-home interviews with participants in order to gain an understanding of the context of their home environment and their relationships with friends and family. We also probed on their relationship to technology in general and communications technology in particular. They were given a set of tasks to complete which included setting up a page on the site and inviting friends and family to connect with them over a period of three weeks. They were also asked to keep a diary, which they were asked to submit online at weekly intervals. We monitored their pages and diaries, and followed up on any problems they encountered using the site. We completed final interviews with 5 participants (one participant having dropped out). Participants attended a final interview to discuss their experience of using the product.

Subsequent to the fieldwork activities, we held two focus groups, each with between 8 and 10 participants. The objective was to bring together a wider sample of people to experience the product and to gauge their initial reactions before and after introducing the product. The focus groups were also used to test initial messaging propositions.

Interim analysis was carried out at each stage so feedback from one activity informed the questions we asked at the next stage. We concluded the UK research having identified 6 propositions with the results of their evaluation, and a set of product design recommendations. The fieldwork in France and Germany was delayed.

Findings

In the dating study, people made comparisons with their favoured sites and used metaphors of place to explain the differences.

> *Michelle (UK) felt that the competitor site helped to create a playful environment. She says that the site's communication options, coupled with its overall look makes her feel as if she has entered a warm and welcoming café where she is free to meet people, flirt and make friends. She is allowed to be as serious or as playful as she likes.*

> *Katrin (DE) explains: "I like [a competitor site] better because there is more user action, it's a lively place."*

The overall sense was that an online dating site needs to be perceived as a lively place to meet people rather than a large database of daters.

The rituals and behaviours surrounding romantic encounters may be altered but not completely abandoned when people decide to meet potential partners using the internet. For example, many of the women participants expected men to approach them and to pay for any expense involved. For example it was suggested that only men should pay for the subscription fee to the site.

> *Jonathan (UK) says he is old fashioned and likes to treat women and pick up the bill for dinner and he is happy to make the first move.*

Participants wanted a way to express interest which is open to interpretation and entails less emotional commitment on the part of the giver. Analogies might be extended eye contact, or with more commitment, buying someone a drink. Participants wanted to know that their expression of interest had reached the other person. As expressions of interest were generally expected of men, men said they expected a sense of politeness, specifically in rejection. Participants expected some form of courting, though the length of time expected varied.

Ways of enacting these rituals need to be possible for romantic encounters to take place partly on a site, or else people take these activities offline as soon as they can. The activities are subtle and culturally nuanced, and consideration needs to be given to the form of technology proposed, rather than bluntly implementing the facility to ask someone out.

Cultural perspectives also had a role to play. People wanted to interact in places in which they could be social but the UK and Germany also highlighted subtle differences. UK participants seemed to have a more casual and relaxed attitude to going out, whereas German participants adopted a more serious approach. For example, UK participants would be happy to meet up with someone for a coffee and to see how it went, whereas German participants preferred an encounter to be recognized as a potential relationship under assessment. A further example was given by German participants' acceptance of the formality imposed by pre-written messages and e-mail only contact, whereas UK participants wanted more room to flirt and communicate, offered say by integrated chat facilities. In addition, from previous research that looked at dating terminology and therefore local perceptions of dating in social life, we had learned that the Germans preferred 'dating' terms that took on a more purposeful tone.

The profile is generally understood as the primary way to represent oneself on the dating site and as a result, took on significant importance for the participants. All participants agreed that completing a questionnaire, which was the current facility provided, was not easy, enjoyable, or particularly representative.

> *Regine (DE) explains, "I find it hard to describe myself; you feel different everyday and people always see you differently."*

> *Konrad (DE) describes the free text as a challenge because "it's the only way to present you and stick out of the mass." Konrad said: "I needed two evenings, because I wanted to do it right."*

> *Toby (UK) completely rewrote his profile 3 or 4 times and changed his picture(s) a few times as well. He wanted to make the profile 'look active'. He feels women seem to find it a bit odd when he is honest about saying he is 'looking for love' in his profile, even though this is what they want also. A standard question he is often asked by women on dates is 'do you think I am like my profile?'*

Participants wanted innovative ways within the system to present themselves.

> *Terry (UK) wanted to change the look and feel of his profile, such as the colour scheme.*

> *Marlon (DE) took a photo a certain way but the dating site had changed it.*

The issues of honesty and trust were important factors and some participants intentionally left out information about themselves in order to increase the chances of meeting people. Nadine (UK) did not disclose her Multiple Sclerosis and Rose (UK) never talked about her "body type". So clearly strategic choices are made, but the profiles themselves provided the medium for clear and honest representation. Dishonesty is not so much perceived as problematic, but as natural behaviour:

> *"I think you are as honest as you are in real life, when you meet someone. You show your personality step by step" said Katrin (DE).*

> *As Regine (DE) explains: "You build your own image in your head while communicating online which often differs from reality."*

In the social blogging study, participants related to the space as something they would like to envision as their "own space" or "own piece of the web" or "my place online". The space itself appears to be representative of them, and participants used metaphors of place to explain this. Participants talked about it being like their living room or sitting room where they could invite people to come and hear their ideas or look though their music, films, books and comment about what they see.

> *Kingsley clearly articulated this when he said, "My web site, my issues, my music, my design, my life. See, interact, download, chat".*

Interestingly, in the focus groups, the proposition of an online living room did not appeal.

> *They said, "it suggests you spend all your time online", "it is not a viable alternative" and "rings of geek".*

So the literal translation of a space that resembles a living room would not be appropriate; it was clearly a sense of place rather than the place itself that needs to be conveyed.

In order to make this feel like their own space, participants wanted the ability to customize and personalize the space to represent their own personality. The ability to create an environment and to change the look and feel was seen as very important to their sense of ownership.

> *James asked if it was possible to change the colours and customize it to be more like your own space to express your personality. He said, "It would be like painting your living room a different colour. You can always have more things that make it feel like you own personal space. If you come there and it is very bland it gives the impression that the person is bland. It's not like everyone's living room is the same."*

They compared it with other sites that allowed them to change colours and hide unwanted or unused features.

Participants raised privacy issues. They wanted a place that they could control access to and make parts of it accessible to different people at different times.

> *Jim said, "I would not share photos of my nights out with his parents, but I probably would not share family holidays with my friends."*

In summary, from these studies we are able to identify the following themes. People refer to spaces in which they interact with others online by using metaphors of place. Rituals and behaviours are altered but not abandoned in the online environment and the subtlety of these rituals needs to be considered to understand the type of features needed. Cultural perspectives were apparent in people's attitudes to dating and these impacted directly on the communication features required. People wanted personalized ways to represent themselves and features that supported self-expression.

Reflection on Prior Work and Theory

When we compared our findings with the previous literature on online dating and blogging we found little evidence that people raised the importance of place-making and online identity 'creation'. Fiore and Donath (2004) present a survey of the current styles of online personals but do not raise the issue of place-making or the importance of the online environment for adequate expression of user's sense of self. Terveen and McDonald (2005) present a research agenda for social matching. From work in cooperative interaction, they say that developing real, trusting relationships requires that "people must be able to see and understand past actions of others and must have the expectation that their current actions will be visible in the future". They suggest an approach in which users are dynamically

clustered into ephemeral groups but these groups are linked to one or more closely related persistent social places.

From a technical perspective, research on blogs has looked at exploring how blogs connect with each other (Herring et al 2005a, Kumar et al 2004), how information travels through the blogosphere (Gruhl et al. 2004), blogger demographics and the types of content prevalent in blogs (Herring et al., 2004). From a social perspective, research has looked into the reasons people blog (Gumbrecht 2004, Nardi, Schiano & Gumbrecht 2004, Nardi et al. 2004, Reed 2005), the nuances of conversations (Lilia & Aldo, 2004), the nature and content of blog posts (Bar-Ilan 2004), and the blog lifecycle (Gurzick & Lutters 2006).

Even though previous studies of the immediate settings reveals little reference to the notion of place and issues of emergent identity construction within those places, e.g. personalizing the blog space, we chose to explore theoretical writing that could be relevant.

The attention to 'place-making' has a long tradition in anthropology (see e.g. the recent collections of Bender 1993, Feld & Basso 1996, Hirsch & O'Hanlon 1995, Gupta & Ferguson 1997). On the whole, anthropologists have argued that it is more than just the cultural imagination or the phenomenological experience of people that 'make places'. Particularly they stress that other powerful interests, both political and economic, are involved in the continual process of the construction of 'place'.

For our purposes, we took Ingold's theorizing about landscape (1993) and Gupta & Ferguson's (1999) concept of place-making as our starting points. Ingold conceptualises landscape as a taskscape that is a network of the interconnections of the activities, while Gupta and Ferguson draw attention to the ongoing process of generating perceptions of location, and the relationships within and between them. Whether these locations are imagined or geophysical, people are using spatial metaphors to describe them.

We suggest that 'place' is the area around a person within which that person can meaningfully interact. 'Place' is around subjects who create social relationships that allow behavioural framing that is familiar, where as 'space' is about objects and their spatial relationships. We base this on Husserl's idea that "every experience has its own horizon" (1973:32). This means that place is constituted not only by the visual constraints with which we can see, but as much by the possible trajectories of what we can do. In spaces, meaning is attached to things, and in 'places' it is gathered from them (Ingold 1993:155). In other words, in spaces one can relate only to the objects within them, but in places one can have a connection to the whole.

Furthermore, anthropological reports suggest that the vision of 'space' as a fixed, objectifiable and measurable description of a surface, not affected by the project of its representation and remembrance (see e.g. Küchler 1993) is particular to Western Euro-American thought. Further, even in Western Euro-America, it is the dominant discourse

(Lefebvre 1991, Kirby 1991) rather than the experiences of people (Ortlieb 2000, Hine 2000).

We believe that humans experience the environment not as a 'blank slate', but rather as a structured set of affordances in the context of current action whether this is in a 'virtual' or 'real' setting. The meaning that allows activity is gathered from the surrounding objects (Tuan 1977, Ingold 1993, Casey 1996). Through attaching meaning, space becomes place (Harrison & Dourish 1996:69).

We believe online communication spaces are about social relationships, and we need to consider a sense of place if people are to create meaning within them. Judging from both the theoretical writing and our own data, we conclude that 'virtual spaces' may be not grounded by tangible sensory experiences, but instead that people can only act in 'places' whether these actions are accompanied by those tangible sensory experiences or not.

As online services and activities become embedded in people's lives (Reed 2005, Herring et al 2005b, The Economist 22/5 2006), our data suggests that the distinction between the 'real' and the 'virtual' online worlds is becoming less pronounced for its partakers, co-creators and participants. Recent theoretical writing was concerned with the difference (see e.g. Haraway 1985, Carrier 1998, Miller 2000) between the two spheres, but we saw users merging their online and offline experience realms for the imagination, construction and understanding of their and others' identities (see Wellman & Haythornthwaite 2002). We argue against such an ontological separation (see e.g. Reid 1995, Turkle 1995, Rheingold 1993)[1].

Data in the anthropological literature implies that if a re-configuration of spatial relations has been made possible by the spread of information and communications technologies around the world, then this is as much about the interplay between the experience, imagination and political-economic construction of physical space as it is about 'digital space' – or, rather, they are probably both part of the same thing" (Green et al. 2005:806). Our findings therefore support recent theorising about identity construction[2] which depicts identity not as fixed and stable, but as emerging from the self-representations in specific contexts (Ewing 1990, Lutz 1988)[3].

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[1] This is supported by Slevin who criticises them for "cordon[ing] off these forms of association from the real world. Rheingold refers to them as self-defined electronic networks; Reid regards them as an alternative virtual world where social boundaries have become deconstructed; [and] Turkle sees them as occupying a space that we can only reach by a ladder which we must later disregard" (Slevin 2000: 107).

[2] We treat the analytical concepts of 'the person', 'the self' and 'the individual' as different dimensions, or aspects, of identity (see LaFontaine 1985, Poole 1991, Whittaker 1992)

[3] Ewing (1990) stresses the organisation, contextualisation and negotiation of *multiple* self-representations: Selves – as an expression of identity – are inseparable from context. Lutz's cross-cultural studies of emotion (1988) emphasise the emergent and *contested* natures of identities and emotions. It does not reveal a concern with boundaries and oppositions, but rather a social forging of emotions as cultural (de-essentialised) experience.

What's Going On Out There?

Persons are thus not essential individuals, but fluid entities that construct and negotiate various identities according to changing situations and contexts (Goldstein & Rayner 1994, Kellner 1992). According to our findings, we should view identities generally as rhetorical assertions, framed by linguistic conventions, which we narrate and perform for each other. "Evolution of identity …does not mean absolute self-control, but the establishment of a communicative relationship between the person and the world" (Joas 1997:243).

Nonetheless, we need to be aware of the genres in which imaginations of identities find expression. In our case we mean both the Internet and the online interactive communication environments in which we conducted our studies as well as the specific offline (cultural) environments that shape the perspectives through which users construct (online) aspects of their identities (see Miller & Slater 2000). "Each of us experiences a wide variety of …ideological hailings, calling us to different social identities. The way we react to these hailings makes us what we are and locates us in the world" (Tierney 1996:20).

Behaviour online is therefore shaped by behavioural forms and conventions that exist offline and that represent cultural perspectives, so we can expect cultural differences in these behaviourally framed places. In other words, culture bears on online place-making behaviour[4]. We mentioned above that people can only meaningfully act in places, and those places are shaped by behaviour. It is not surprising, therefore, that we found in our studies that people make meaning by using metaphors of place.

Our reflections on theory illustrate that people need to have creative input into their environments to make themselves feel at home in their environments. In this way, the environment is shaped, acted upon, made into a place, and in such a setting, people can develop their identity. Neither place nor identity is ever fully finished; the control sought is not about fixing either, but about the kinds of changes effected on them.

Even though we only carried out studies of two particular products in the social software category, the theory suggests that perhaps we can extend our findings more broadly to other products and to other types of product within the social software category. However, to be clear, we are not saying that people do not make meaning from social software currently. After all, people compared the products we studied with the competitor products that they preferred. What we are saying is that products are more likely to be successful if they support meaningful behaviour and if people are able to construct a more appropriate sense of self.

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[4] It would lead too far to discuss the literature and discourse on the concept of 'culture'. For purposes of this paper, we view culture as repeated behavioural patterns by different actors in specific locations. We refer to Brumann (1999), Gerholm (1993), Brightman (1995) for further reading about 'culture' and the discourse about it in anthropology.

Designing the Online Place Rather than the Online Space

Given the understanding that people can only meaningfully act in places that they can shape and develop their identity, the issue becomes how we design for this. We know that developing a spatially-organised system does not inherently support meaningful behaviours, and so do our findings inform design?

From our data and the theory, we propose that the metaphors that people use about 'places', and the ways people interact with them, could help to inform the design of social software. Our approach is to use the metaphors as tools-to-think-with and not to take these metaphors literally. People do not mean they want a system that embodies a lively café online. People want aspects of a café that makes it conducive to meeting people and where they can (re)present themselves. For example, people want an environment with a sense of liveliness, with the possibility to "bump into" people they do not know, to indicate they are interested in another and perhaps the opportunity to chat. It is important to remember that people refer to the place-ness and not the space-ness of a 'café'. The focus groups reflected this view in the social blogging study. When we proposed the social blog as an "online living room", one participant said, it "rings of geek". The metaphors of place should be used to define particular attributes and communication features for a system.

We could adopt several approaches to the deployment of the system. Given the influence of culture, one approach would be to develop specific solutions for particular markets. Pragmatically, this is not on the agenda for global organisations, though one could argue that it should be. An alternative approach – and the one we propose – is to create a global toolkit from which users can select or even develop the features they find most appropriate. This approach has several benefits.

A global toolkit would act as an enabler, to give people the opportunity to create their own places and express their own identities in a variety of ways. It would support the representation and interaction differences exhibited by individuals and sub-cultures. It would also support the cultural transitions people are making. For example, in the two studies, even though people were recruited in either the UK or Germany, some of the participants had relocated in recent years from France, Poland, Nubia and Angola.

A global toolkit would also open up the possibility of enabling new behaviours to emerge. The tools we use shape our sense of self, whether digital or in the wider environment (Turkle 1995). No doubt the forms of courtship pursued online and offline are shaped by the facilities people have available. Given new possibilities, different sub-cultures might adopt different feature sets and create different types of place.

In summary, we propose that designers use metaphors of place to identify features that support the nuanced behaviour supported by places, and to build those features into a global toolkit to enable people to use them as they want to create a sense of identity.

Conclusion

In this paper we report on two studies of social software, an online dating site and a social network blog. We show that people need 'places' because only there persons can meaningfully be (re)presented. Online dating sites need to consider how people represent themselves to others. Social blogging sites need to provide features and tools to customise spaces and enable people to create *personal* places to which they can invite their friends, the metaphorical "living room." Further, 'cultural' perspectives greatly influence and shape the metaphors and models of communication. Given prior theoretical work in this area, our findings are perhaps no surprise, although previous studies of online dating and blogging do not report them.

In our recommendations, we suggest that multinational participants' metaphors about 'places' should be used as tools-to-think-with rather than be implemented literally, and thereby used to enrich a feature set for global services such as online dating and blogging tools.

This paper aims to offer three contributions to the EPIC community:

1. To provide a case study of social software in an international context
2. To show that common sense notions of space and place are conceptually laden and that subtlety of listening is required in the work that we do in order to fully appreciate the implications of such subtlety
3. To illustrate the connection between theory and practice

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Embed: Mapping the Future of Work and Play: A Case for "Embedding" Non-Ethnographers in the Field

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This paper reflects on an experiment to combine an "ethnographic walking tour" with futures and foresight methods, as a means of enhancing and validating foresight exercises through the addition of valuable first-hand observation. The project, entitled Embed, was created to familiarize senior strategists, product developers, foresight specialists and marketers with the potential of ethnographic research to inform decision making. We introduce the concept of "embedding" to describe the process of placing non-ethnographers into fieldwork situations. We then reflect on the opportunities and limitations of creating spaces for embedding non-experts in such settings. In the recommendations, we summarize the experience from a practical as well as theoretical perspective. The paper raises two questions related to the spatialization of commercial ethnographic knowledge; first, the value of using "embedding" to extend the territory of ethnography to a wider audience. Second, what this experience reveals about the conditions under which commercial ethnographic knowledge is produced.

Introduction

This paper describes a year-long discussion about the potential of combining an ethnographic approach with futurist consulting methods. The purpose of which was to generate foresight, by identifying, synthesizing and analyzing trends which may impact an organization, or marketplace in the future and to assist by developing more structured and supportable strategies for facing future dynamics proactively. In this case, the futures consultancy in question augments its "traditional" offerings (e.g., foresight methods, scenario development, briefings and group workshops), with selected experiential techniques. For its inaugural European event, the consultancy required a means of immersing clients in actual social settings, from which they could "witness" indicators and evidence of possible future trends.

The second motivation for this research was to explore how contemporary cultural innovations are translated into management and business knowledge. Whilst not the central focus of this paper, we argue an increased interest in ethnographic research, which aims to get closer to the user, reflects a rising demand for methods that re-map the space between

business decision makers and business problems. This paper presents an experiment to create a tool designed to explore how ethnographic knowledge is translated into organizational learning. The project is offered as an ontological experiment in what might be possible with ethnographic research. It therefore contributes to exploring the re-spatialization of knowledge production in advanced capitalist societies, which aims to understand how business and management knowledge is evolving into a self-organizing 'cultural circuit of capital' (Thrift, 2005). In other words the flows and folds that occur as knowledge is assembled through the interaction of management consultants, business school, the business media and gurus.

Making Sense of an Ethnographic Approach without *Graphos*

Before setting out the details of this project, we must clarify our use of the term ethnography. Our intention was never to make epistemological claims justifying a 'full' or 'true' ethnography of the future of work and play. We recognize such an undertaking would require a rich textual representations of social reality, which can only emerge through extensive immersion, analysis, reflection and interplay between theoretical and empirical perspectives. Hence, we do not claim the embedding process will generate the same degree of epistemological productivity as full ethnography. Instead it is a reduction, or minimalist interpretation, of ethnography, designed to reproduce the complexities of conducting ethnographic research for business decision makers. The following is intended to prompt thinking about one way of assisting the translation of ethnographic research into the panoply of methods employed in organizational learning.

Our interpretation of ethnographic fieldwork is also tightly coupled to the consultancies aims of hosting a two-day multi-client introductory workshop to futurist consulting. We do however believe the process of placing non-experts into field research settings may warrant further investigation as a means of prompting understanding of the epistemological productiveness and challenges involved in commercial ethnographic enquiry. A detailed textual representation of this project, (i.e., a graphos) has been documented elsewhere (Greenman, forthcoming). In this paper we wish to explore the possibilities of how ethnographers might create spaces designed to encourage business decision makers to witness the sensemaking (Weick, 1995) that is produced during ethnography.

We introduce the term "embedding" to refer to a tool for expanding an ethnographer's 'realm of influence', (Jordan and Dalal, 2005) by physically placing non-experts into a social milieu, as a means of opening business decision makers to witness how ethnography can play a crucial role in creative problem framing.

This approach advocates bringing non-experts into situations in which they can experience the production of ethnographic knowledge and how it may assist in helping organizations adapt, through re-framing the accepted parameters of problem solving (Landry, 1985). In conceptualizing embedding as a tool to increase empathy towards ethnographic research, it is conceived as part of a wider shift towards promoting

understanding and acceptance of how humanities and arts traditions can contribute to assisting business decision makers understand the complexities of socio-cultural organization.

We proceed by making the following claims for embedding. First, as a technique to reduce the distance between the ethnographer and business decision maker, by inviting non-experts to witness the conditions under which how ethnographic knowledge is generated. Second, as an additional tool for the commercial ethnographer, who could develop epistemological productive spaces, perhaps within existing organizational training programs. Together these are combine to stimulate 'situated learning' (Lave and Wenger, 1991) and build more effective 'communities of practice' (Wenger, 1999), by placing non-experts in spaces in which they witness the 'collaboration, compromise and co-experiencing' (Jordan and Dalal, forthcoming) of commercial ethnography. Embedding aims to turn the gaze of commercial ethnography back on the existing knowledge production processes within an organization. Hence, providing a space to reveal and reflect upon the proximal relationships which exist between ethnographers and organizational decision makers.

EMBED: A Tool for Thinking With

Embed was the name given to a half-day walking tour, DVD and map devised to compliment a two day futures workshop in London. The event was held in June 2005 and focused on the future of work and play in Europe. Day one consisted of a workshop introduction to Futurist research. Participants were encouraged to conduct scenario planning. This involved synthesizing major trends and transitions which the Futurists expect will impact on work and play over the next 20 years in Europe. On the second day participants were invited to witness three "zones of change" in London to further explore, validate, or amend the views developed on the first day. The driving forces included the following; immigration, technology development, cultural values, economic policies and an aging population.

The tour was developed on the assumption the participants would be planners, strategists and marketers from non-European organizations and from roles that rarely put participants in contact with "street-level" illustrations of the trends under consideration. The rationale for appealing to ethnography was to place the delegates in an unfamiliar territory, utilizing their unfamiliarity with the environment to heighten the epistemological productivity of being an outsider. During the tour, participants were encouraged to conduct basic semi-structured observation and were invited to conduct an "informal interview" with a key informer.

The tour route was chosen for various reasons. First, the sites were selected for their physical proximity to central London, where participants had gathered. The entire tour had to be completed within four hours, which limited the distance we could cover. Second, the sites had to reflect some aspect of the driving forces discussed during the first day's

workshop. This required selecting sites as "ideal types", reflecting exaggerated effects such as immigration and clusters of knowledge workers.

After selecting a geographical area in east central London we began to build a narrative for the tour from the following sources. First, we consulted academic ethnographies of work conducted in the area. These included Young and Willmott (1957) who discussed the kinship networks and Hobbs' ethnography of entrepreneurship (1989). These studies were complimented by popular non-fiction writings about the area (Hall, 2005). Second, we turned to ethnographic methodology, especially phenomenology, to justify a walking tour. Walking was advocated on the basis that it would encourage non-experts to empathize with how a key technique in ethnography is the physical embodiment of the researcher in various social settings.

The three sites served as vignettes of broader social changes relating to work and play, which were sketched out during the workshop. Transporting non-experts into a field-setting was an invitation to witness, albeit temporarily, how ethnographic research is qualitatively different to other forms of research. The aim was to sensitize business decision makers to the production of ethnographic knowledge, by heightening awareness of the affects of ethnographic fieldwork, by creating a space which enabled participants to enter the field and witness, albeit temporally, the improvisatory nature of taking standpoints, "hanging-out," and glimpse the struggle of ascertaining an *emic*, or insider perspective. Clearly, we were not making claims here of participant observation or "becoming the phenomenon" (Jorgensen, 1990).

These limitations are why Embed is referred to as a "tool for thinking". The tour was devised to be fun, creative, unusual, risky and quirky. This is not to suggest it was indulgent or frivolous. Embed was not aspiring to be a Situationist drift around the city. It had a pragmatic aim of nurturing empathy between business decision makers and ethnographic researchers. It aimed therefore at assisting in the process of brokering a dialogue with non-experts. The aim is certainly not to discredit the work of professional ethnographers with relativist claims about the nature of social scientific knowledge. Instead we hoped to take steps towards developing a "meaningful vocabulary" (Denzin and Lincoln, 2003) for experts and non-experts to discuss how ethnography contributes to business decision making.

Embedding

The term embedding is defined in the Oxford English Dictionary as the "placing, or fixing into (something) firmly or deeply in surrounding matter; to make something an integral part of a whole; to implant (e.g., an idea) in the mind". In geometry, embedding refers to the insertion of one mathematical object into another instance; or the insertion of a homeomorphism, or topological isomorphism, a specific type of geometrical mapping between two points of reference. Embedding affects a topology by stretching, or folding and re-folding the surface, morphing an object into something new. The process is isomorphic

(**isos** meaning equal and **morphe** meaning shape) because the embedding must map together two complex structures into a corresponding relationship. Embedding is therefore a process of bringing together two structures, to form a new structure. A more in-depth account of the geometry and virtual philosophy can be read elsewhere (De Landa, 2003). Our interest in embedding is its potential as a process of insertion and creation of new possibilities.

Another use of the term "embedding" is the U.S. Department of Defense's (DOD) media strategy. During the Iraq war, the DOD adopted a strategy it referred to as "embedding" to refer to the placement of media representatives into Air, Ground and Naval forces. As the DOD stated; "these embedded media will live, work and travel as part of the units which they are embedded…to facilitate maximum, in-depth coverage" (2003). Media "embeds", were provided with direct access to the Area of Responsibility (AOR), to gain a "full understanding" through "extended participation". In return for their "investment of time", media embeds were said to have a "different level of access" to the "theatres" of war. Access to the situations was subordinate to "on scene commanders", who had the authority to issue travel plans, protective gear and ultimate responsibility for deciding the degree to which media embeds would compromise operational security (e.g, dates, times, locations, military units, casualties, code names, service members names). In addition to seeking permission from these commanders, media embeds also had to obtain "informed consent" from interviewees.

The above is interpreted as an operationalization of an isomorphic embedding process. It created a new typology of war correspondence, by aligning media representatives with military personnel. Similarly our small walking tour of London was designed adapt the notion of embedding non-experts into the field, promoting new forms dialogue and encouraging a re-mapping the proximity between ethnographers and business decision makers.

Similar approaches can be found in other commercial contexts. Anderson and McGonigal use the term "place storming" to explain how engineers, designers and marketers were situated into real world situations, so as to explore the interrelation between virtual and physical space (2004). Mariampolski also discussed the possibilities, both positive and potential negative, (e.g., interference from internal politics) of involving non-experts in ethnographic fieldwork (2005).

A final justification is taken from Wenger's pedagogical theory of "communities of practice" (1998) and Lave and Wenger's theory of "situated learning" (1991). Their central argument is that learning occurs through participation in communities, rather than solely through reification and formal instruction. Hence the challenge for management education is in designing "learning architectures" which place learning into the wider trajectory of an individual's life. Rather than focusing training solely on a classroom, learning designs should encourage various "modes of belonging". These include engagement, imagination and alignment which aim to open an individual to the potential of identity change. Wenger noted the particular importance of mapping, off-site visits and tours to extend imagination and

invite individuals to challenge the boundaries of their identity in relation to a community and/or organization.

We conceptualize embedding as a tool for increasing reflexivity towards the imagination mode of belonging. Our aim was to encourage individuals to consider how ethnographic knowledge could re-map the proximity between the organizational problems they face and the wider environment in which organizational adaptation occurs. By combining ethnography, futures consulting and theories of situated learning, we define embedding as follows: a tool for engaging business decision makers and non-ethnographers in the complexities of everyday situations, in order to heighten the reflexivity of embeds towards the boundaries of organizational problems and to assist in re-framing the imaginative frontiers of organizational learning.

Establishing a Rationale for Walking the City

After the initial conceptualization of embedding non-experts into a field setting, the second phase of development was to consult literature of researching urban milieu. The first step was linking the walking tour to the Chicago School, which placed a premium on understanding social reality as emerging out of the symbolic interaction between actor and urban setting As Deegan has suggested, the Chicago School acted as a catalyst for the "study of human behavior and its embeddedness in specific people and places" (2001, p22).

In keeping with the Chicago tradition we proposed treating the city as a laboratory from which to make observations of changes to work and play. Walking the city became an opportunity to experience the situated learning explorations ethnographers often make. The act of walking was critical for physically embodying participants in a milieu, rather than showing them a video or interpreting textual accounts. The rationale was to engage in contemplating what de Certeau termed the "ensemble of possibilities", from which, individuals evolve "ways of operating", as they navigate the constraints and opportunities of urban places (1984). Walking was presented as an opportunity to explore the city as an "archive" of culture (Donald, 1999, p7).

Operationalizing EMBED

This section expands on the process of devising a conceptual framework to align the futurists' drivers with social theory. This stage was necessary to create a narrative to emplot the "walking tour".

Driving forces and trends

The term 'driving force' is derived from scenario planning[1], where it is used to describe a macro-level change agent. The driving forces used to develop views of the future of work and play involved issues such as: immigration, an ageing population and the impact of networked technologies. Driving forces are combined to construct models of the future which invite strategic planners to change how they "see" and therefore react to particular future worldviews. Liberation from short-term problems is believed to encourage a "creative" response to a "continuously changing world" (van Heidjen, 2005: 3). Rather than producing "real" answers to "real" problems; or "ideal" solutions to "ideal" problems (Landry, 1985). These foresight exercises encourage a non-standard form of problem framing. They encourage a degree of risk taking by acknowledging the future is inherently unknowable. The value is to consider how an organization may react to emerging and converging challenges.

At the London workshop, the aim was to explore general trends such as how Europe can sustain a balance between work and leisure whilst facing increased economic pressure from globalization; rapidly changing technologies; an ageing population; increased immigration and the challenge of integrating distinct regional values.

Driving Forces to Social Theory

In order to provide an approximation of how ethnographers utilize social theory, we connected the driving forces to general theories of work and leisure in advanced capitalist societies. Our use of social theory was selective and presented a specific reading of the future of work and play. One that stressed increased internalization of risk (Beck, 2000); self-reflection (Giddens, 1991) and entrepreneurship (du Gay, 1996), required to cope with a contingent, temporal and portfolio careers (Sennett, 1998).

We also stressed the importance of two structural forces shaping work and play; these were technology and globalization. We focused on how capitalist economies are increasingly reliant upon aligning labor to the production of weightless "symbolic goods", such as software and cultural goods (Lash and Urry, 1994). A process driven by convergence of global digital network technologies; the emergence of highly networked firms (Castells, 1996); de-industrialization; post-Fordism; soft capitalism, and the rise of what has been termed a "cultural economy" (Amin and Thrift, 2003). Contrary to theories stressing the death of distance and place, we accepted the renewed importance of "cities", which Florida, amongst others, has argued are critical for explaining why key knowledge workers (e.g., scientists, technologists, cultural producers and engineers), cluster in "creative cities" (2002).

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[1] Scenario planning is understood as having developed during the Second World War. The process involved "war gaming" to produce a series of possible scenarios, comprised of desirable and undesirable possibilities. A key pioneer was Pierre Wack, who later introduced scenario planning at Shell. It was Peter Schwartz, founder of the Global Business Network, who popularised the term with *The Art of the Long View* (1991).

The drivers were distributed to the participants prior to the London event in the form of short reports. The social theory was provided partly through an introductory briefing, on the day of the tour. But also through a written report and map which provided key quotes interwoven with images sampled from the three sites.

From Social Theory to Narrative

From the driving forces, trends and social theory of work we constructed a narrative for the tour. The central focus was a knowledge intensive economy, where the barriers between work and play were increasingly blurred. The narrative was selective and participants were made aware the tour was one amongst many possibilities for the future of work and play. We did not, for example, consider the future for low-paid service workers, instead we deliberately focused on mapping a highly flexible career trajectory, heavily reliant upon technology and creative labor.

We argued the future of work would rely heavily on the interaction between social and technological infrastructures of cities. Hence simply visiting a single site of work was ruled out in favor of witnessing three inter-related social milieux, each involved in the circulation of knowledge and capital.

The three sites were chapters in the above emplotment. The tour began at Canary Wharf, the power seat of Europe's "netocrats" (Bard and Soderqvist, 2002), to illustrate the shift in employment towards knowledge industries. Second, Brick Lane was selected to show first the blurring of work and play[2] and to provide a rich visual, aural and kinesthetic immersion into the effects of immigration[3]. Finally, Clerkenwell was selected as a cluster of small creative firms, which illustrated a place where work and play are aligned to produce values and perceptions that fuel communications, entertainment, and advertising. The tour culminated at a media communications agency, which provided an opportunity to conduct an informal interview with the creative director.

Once agreed upon, the three sites were visited a number of times prior to the event. Three full-day field research sessions were held before the event. During which a visual communications expert was employed to utilize various design research methods (Laurel, 2003), which include the use of still photography, digital video and audio recordings to "map" the social milieux. The sites were visited at different times of the day and various routes were considered for the walking tour.

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[2] The area is a key site for Europe's 'after dark' economy and has been a hotbed of cultural development and regeneration

[3] The area of Shoreditch, Spitalfields and Tower Hamlets is a key historical site for the waves of immigration to the UK since the c17th

During these visits a number of informal conversations and interviews were held with local residents, business-people and existing contacts. This was not an attempt to conduct full ethnography of work and play. Instead their views contributed to a process of triangulation between social theories and the futurist's driving forces. The aim was to ensure the walking tour would be valid, in that the routes would still provide an experience that would be recognizable to a local inhabitant.

Limiting the Claims of Reproducing the Experience of Ethnography

In making the above choices, the space created for embedding non-experts impacted on the extent to which the experience can claim to have been ethnographic. First, it was an approximation of the embodied experience of being in physical sites and therefore omitted an exploration of how virtual environments can be explored ethnographically (Hine, 1999). Second, the opportunity to gain in-depth "first-hand experience of settings" (Hammersely and Atkinson, 1990) was severally curtailed. Participants could not have gained insight, for example, into what it means for an ethnographer to adopt a "learning role", or to conduct systematic analysis of the cultural meanings of a specific group or organization. Finally, the participants were freed from the challenge of crafting a textual representation of a social reality.

A further limitation must be set around the physical immersion of non-ethnographers into a field setting. Whilst the tour provided some exposure to the physical sensations (aural, olfactory, and kinesthetic) these should not be read as reproducing the demands which ethnographers place on themselves during fieldwork. It did not capture the "emotions of fieldwork", which Coffey (1999) describes as emerging from the subtle shifts in a researchers identity from prolonged periods of building rapport and reciprocity.

Given these limitations we might well ask whether "embedding" can be classed as ethnographic. Clearly many of the above affects of fieldwork, as a form of labor, derive from the passage of time and deepening of social bonds. One response, perhaps somewhat unsatisfactory, is that commercial ethnography works to shorter timescales and should not expect the same degree of immersion as an academic study (Mariampolski, 2005). In defense of embedding we return to the "media embeds", as defined by the US DOD, an approach which never aimed to turn media representatives into full combatants. Instead it aimed to place them in close proximity the battlefield to generate co-dependence.

As noted earlier our aim of placing non-experts into the field was to stimulate "situated learning" (Lave and Wenger, 1991), by encouraging the embed to "imagine" the spatialisation of ethnographic knowledge production. Embed was created as a space to stimulate a ludic response. That is play defined as a "temporary sphere of activity with a disposition all of its own" (Huizinga, 1947, p27). A space which encourages a momentary withdrawal from everyday (organizational) life, which we hoped would generate further thinking about the futurists' driving forces and trends.

Laying the Ground Rules at the "Embedding"

A drawback with our embedding was the limited opportunity to familiarize participants with ethnographic methodology. At the start of the tour a brief introduction was given to the basic concept of semi-structured observation, by using Goffman's dramaturgical metaphor of social life as a presentation of self[4] (1959). The notion of "impression management" was selected to help participants engage with the idea of framing their observations by breaking down a social space into component parts and conceiving of it as a "performance".

Participants were encouraged to focus on observing the ways in which individuals work to fit in to a setting and achieve a competent performance. It was suggested there were three layers to performances, first the presence of "carriers" or "sign vehicles", such as general conduct and appearance. Second the use of verbal expressions, either overheard, or those used by the creative director during the office visit. Third, non-verbal expressions, such as facial expressions, gestures and hexis, which might help us understand the "theatre". These basic clues were proposed to partially frame their experience during the walking tour It was anticipated that the participants would use notebooks to record observations. However, as the tour progressed it became clear that participants preferred to use cameras and camera-phones to create their own visual records of the tour and PDAs for note taking.

The interview with a creative director was included to provide an opportunity to witness a shortened form of narrative interviewing. The director was presented as a key informer whose account would reveal much about the nature of creative labor. The participants were left to ask questions and a lively conversation ensued about work and play.

Evaluation

As this tour was conducted for a multi-client group gathered for only two days, it was not practical to follow-up with in-depth interviews of what the participants made of the tour. Anecdotally, during the post-tour lunch, it was possible to engage with some of the participants. One participant claimed the tour had been "cool" and "fun", but had also generated some useful insights into the use of transportation in urban centers in Europe. The individual worked for an automobile manufacturer and as the tour (largely) relied on underground tube and walking, the individual was surprised by the absence of cars in the three milieux we explored. A second participant said the tour was "interesting" and connected to the "thought provoking" ideas were generated during the exercises on the previous day. He said the tour, or just "getting out of the office more", could be useful as a means of searching out "new" ways of thinking about strategy.

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[4] This is not to suggest that our understanding of observation is based on Goffman. We acknowledge, for example, criticisms, such as Jenkins, who suggested Goffman produced an ethnocentric and individualised theory of identity-work. In which agency is decoupled from wider social structures, especial power and the regulation of the ability to perform (1996).

Whilst the above is not intended to constitute a systematic evaluation, these comments are read as indicative that the tour aims were at least partially met. The process of embedding non-ethnographers into a field-setting was designed to provoke exactly this type of playful engagement. Subsequent screenings of video captured of the locations, and viewings of the map have also prompted people to comment that it must have been an "interesting" experience. Again we interpret this as indicative that embedding can be used to help warm business decision makers to the potential of ethnographic research.

Recommendations

Constructing an embedding situation, such as the above walking tour, requires careful consideration of the milieux into which participants will be embedded. As the above case showed, we drew upon a variety of sources including: a literature review of ethnographic and "popular" accounts of the area; informal conversations with pre-existing contacts in the area; first hand experience gained by living and working in the area; social theory and futurist driving forces. The "spontaneity" of the event was therefore closely managed. Embedding, as operationalized here, therefore requires considerable time investment and local knowledge.

A key challenge with proposing an embedding is the pre-embed investment required. Considerable resources are required to gain access to a social milieu, especially if it involves a private space (such as the media agency). Similarly public sites must be well mapped prior to the insertion of non-experts. A key question is the resource commitment required to construct an embedding experience which is valid and relevant to the research problem. With Embed we were lucky to be working with a consultancy that was keen to sponsor an embedding as part of its showcase of research offerings. The audience was multi-client and there was an underlying commercial agenda for the futurists to promote its consultancy services, especially the innovative use of ethnographic methods.

Practical considerations rest on the need to preserve spontaneity without either over determining what the "embeds" should observe, or leaving the tour so ambiguous that it serves no practical purposes. The above case was already de-limited by the theme of the event, (i.e., the future of work and play). However, the key point is that a strong narrative must be developed to justify the embedding and to make it a valuable knowledge creation exercise.

In order to assess the validity of embedding greater attention is required for the post-event evaluation. Whilst post-evaluation was included in the original brief, in practice it proved difficult to gain access to the participants to conduct follow-on in-depth interviews. Unlike internal research projects, this intervention was conceived within a multi-client environment. As we would expect there was a limit to which participants were willing to disclose how they could apply ethnography to their specific organizational problems they

were engaged with. Anderson and McGonigal (2004) provide a useful discussion of how, in a single-client study, in-depth interviews with employees can be utilized for evaluation purposes.

Whilst we concur that in-depth interviewing would be an appropriate method to gather participants' accounts for the value of this type of immersive experience. The limitation of this method is that the narratives would be generated according to the specificities of the interview situation. To understand how, if at all, an embedding provided "useful" insights for an organization, would require longer term immersion in an organization. Perhaps a more simple means of measuring the success of an embedding would simply be the extent to which it lead to further commissioning of ethnographic research. Whilst we are not claiming direct causality here, the futures firm, for example, has subsequently employed an experienced commercial ethnographer and now incorporates ethnographic research into this core offering based on client interest.

Conclusions

This project was initially conceptualized in response to the demands of a futures consultancy, which requires "new" methods to extend its core service offering (i.e. to build an ethnographic experience to support a scenario planning event). During the course of reflecting on the experience, it emerged that embedding non-ethnographers into field research settings, may itself be a tool to help communicate the advantages of ethnography to business decision makers.

In the case we have presented the audience were not product developers or software engineers, two groups often linked to ethnography (Mariampolski, 2005). Instead they comprised of strategists, planners and marketers. This case therefore presents a potential technique for addressing the specific issue of how to convey the benefits of ethnography to strategists who, it was presumed, may be less familiar with ethnographic research.

We conceived embedding as a tool for extending the reach of ethnographic research techniques into organizational hierarchies. By appealing to senior strategists, it is hoped the technique can help build confidence in the ability of ethnography to make valuable contributions to organizational learning. Hence, in addition to the valuable insights already being produced (e.g, product development and evaluation), ethnography may have a useful role to play in providing spaces for reflecting on organizational learning. Especially reflections of how problems are framed.

This returns us to the introductory comment that by embedding non-experts into the field, we hoped to explore the spatial relations between ethnography and business decision making. The challenge is to construct experiences to place business decision makers into situations which are epistemologically productive. These will provide some exposure to the conditions of ethnographic fieldwork. It is hoped embedding may therefore

help to create a basis from which to develop vocabularies which connect ethnography to concerns of organizational representatives. Embedding is not an attempt to undermine the professional ethnographer, but a contribution to demystifying the ways in which ethnographers work and the challenges they face in making a contribution.

Embedding is conceptualized as the creation of temporal spaces which promote a mutual exchange, by addressing the proximity between experts and non-experts. If successful it may help to deepen appreciation of the conditions under which commercial ethnographic knowledge is produced. Embedding is therefore proposed as a tool for facilitating the translation of ethnography, into the panoply of research methods available for organizational learning.

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The Real Problem: Rhetorics of Knowing in Corporate Ethnographic Research

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This paper explores discourses of the 'real' in commercial ethnographic research, and the transitions and transformations those discourses make possible and impossible. A common strategy to legitimize industrial ethnography is to claim a special relationship to 'real people', or argue that one is capturing what is 'really' happening in 'natural' observation. Distancing language describes 'insights' into a situation somehow separate from ourselves, 'findings' and 'quotes' that we seemingly extract from one context and plunk in another. Whether it is chimps (in Jane Goodall's case) or consumers (in ours); we know what is going on or not. This model of ethnographic knowing has adopted the naturalistic science discourse of the behavioralist—the neutral observers in an environment. Here we explore how this epistemic culture has been created and its 'real' consequences. What we do not attempt is an assertion of the merits of one kind of ethnography over another, or a rehash of tired squabbles about ethnography as method versus ethnography as episteme. In fact, the authors themselves have been utterly complicit in producing discourses of 'real people' while holding epistemic allegiances elsewhere. Rather, we are more concerned to investigate the conditions, both within companies and for research agendas, that this way of talking effects. In our experience this language abdicates authorial responsibility, unduly reduces ethnography to "butterfly collecting" at the expense of other business opportunities.
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Introduction: Why Real and Why Now?

Last year's EPIC conference had the necessary flavor of manifesto production: 'we' in industry were situated apart from 'them' in universities (a knowing theme in Babba's (2005) work), 'we' ought to inject more reflexivity in 'our' work, configure 'the role' of ethnography in industry as if it were a singular knowable entity, or use xyz technique to further 'our' work. It was a moment of professionalization, even institutionalization—by talking about 'we' there came to be a 'we'. We (the authors of this paper) remain partially unconvinced of this precarious but now easily invoked 'we', as there are serious differences epistemologically, institutionally and materially that render any unity questionable. Perhaps, though, the one thing that does sustain this 'we' is a certain commitment to ethnography as brand. That is, in 'our' professional lives, there is a moment in which we describe to others whatever 'we' think ethnography is, claim it as a marker of a certain researcherly territory and disposition, and suffuse the word with expectations about what is coming next. We are quite deliberate in calling it a brand; it does act as a set of discursive markers and implied understandings that 'we' ourselves have created in order to persuade others to grant us

positions that historically have seemed implausible. Like a brand, too, it gives little away: to simply say one does 'ethnography' reveals very little of the substance. In this paper we explore the nature and consequences of one aspect of this brand.

A central element of this positioning has been a kind of commitment to a professed reality: that 'we' can help businesses figure out what 'real people' want, or otherwise what they do with products. Such 'real people', are always at some distance, a shifting horizon to which the ethnographer goes and returns. The 'real people' refrain posits these shifts as a kind of territory; a field of knowledge to which only some have access. The strength this aspect of the ethnographic brand has in fact sustained a 'we' of sorts. Firms generally *do* have notions of what ethnography is, and have expectations of what it means to hire one of 'us'. The real people brand is now mature, leading people in various quarters of this 'we' to ask what this maturation will mean for the future. Is ethnography doomed to become obsolete fashion or, as in a recent Business Week article (2006), will it become a much more sustained core competence of organizational life? The question we raise here is whether the 'real people' refrain, and the knowledge practices it prefigures, will continue to dazzle in either scenario.

This paper interrogates the 'real people' construct by considering the epistemic culture (Knorr-Cetina 1999) that such 'real people' talk has created, and its (ahem) real consequences. Knorr-Cetina (1999) describes epistemic cultures as "those amalgams of arrangements and mechanisms—bonded through affinity, necessity and historical coincidence—which, in a given field, make up how we know what we know."(1). For her, discipline and specialty are a poor indication of the "architecture—and the diversity—of the manufacturing systems [of knowledge] from which truth effects arise" (12). The phrase is catchy—like Anderson's *Imagined Communities* (1991) one thinks one knows what it is from the title. In Knorr-Cetina's hands, however, epistemic cultures is a term that emphasizes *the plural.* That is, for her 'science' is not a unified entity, and to locate epistemologies in social arrangements is to expose the fiction of a singular scientific method. The structures of knowledge production that produce convincing answers in molecular biology, for example, are profoundly different from those in high energy physics, which in turn is comprised of many elements outside physics proper. Such situatedness calls for strange bedfellows; reading her work made us wonder whether the sort of ethnography we do in fact is more analogous to high energy physics than observation work in other social sciences. Fields such as high energy physics can successfully continue producing truth effects, that is, answers to questions of research which its imagined audiences find convincing, without enjoying any wider consensus on what the 'scientific method' is. Like ethnography, the scientific method points to an assumed commonality which, in its non-specificity, enables miscommunication. This has lead us to ask, do 'ethnographers' really need the conceit of the 'ethnographic method' to legitimate themselves?

What we do not attempt is an assertion of the merits of one kind of ethnography over another, or a rehash of tired squabbles about ethnography as method versus ethnography as episteme. That 'ethnography' is no longer a unique claim of anthropologists

is now a given. There is no clawing it back from what many see as its extradisciplinary abuses (Strathern 2005). In fact, the authors themselves have been utterly complicit in producing discourses of 'real people' while holding epistemic allegiances elsewhere. Rather, we are more concerned to investigate the conditions, both within companies and for research agendas, that this way of talking effects what we produce, how we produce and how it is received.

The sites of our explication are several. In part we reflect on our own practices—such is the expected in the genre of the emergent body of work from commercial researchers. In this vein we discuss how our own descriptions of research (and sometimes 'our' own, as the 'we' here necessarily varies with organizational change), and claims to its value, have contributed to an epistemic culture amongst those 'we' are in dialogue with. But of course 'we' successfully construct such epistemological structures only inasmuch as they appropriate or convincingly challenge other epistemological structures currently in circulation. Late capitalist economies are rife with knowledge producers. In a society run by expert systems (Giddens 1990) and knowledge workers the machinations of industry are a cacophony of experts, specialists and technicians. Ethnographers are situated amongst the engineers, management experts, marketing gurus, scientists and public policy experts with whom 'we' deal daily, who similarly tout knowledge as a claim to agency. These are the various sites into which the 'real people' brand has successfully asserted itself. Indeed it is remarkable that 'real people' comes as a surprise in so many quarters. What kind of appeal to expert knowledge does the 'real people' claim make, if clients, firms and other punters live their ordinary lives with equally non-imaginary people in the form of spouses, colleagues, etc.?

Who's episteme is thus a challenging question. Introspection is of little help here; instead we identify the sites of dialogue 'we' have created and attempt to understand the sorts of epistemological commitments that these other people do share that made the 'real people' claim so seductive. The sites, therefore, are elicited just as much from other scholar's arguments about the late capitalist economy as our work refracted through the eyes of our immediate audiences. Some of the work of situating 'real people' talk in fact happens not just in dialogue with clients and firms, but amongst researchers, such as at the last EPIC conference. Some of it is instantiated in media reportage. Some of it is configured by the cultural claims made by powerful economic organizations. Still more of it is constituted through the wider expert systems in which we find ourselves. The point is to identify—and by doing so call into question—the dominant features of this brand that are rapidly becoming normative expectation amongst an ever widening diversity of people. Some time ago one would have called this 'following the metaphor' (Marcus 1995).

The Invention of Real People

There are many stories of the origins of industry-based ethnography, and we are not starting at everyone's beginning. In our organization—which is not every organization, but also not unlike many organizations—part of the 'real people' story takes place in the late

90s, when there was a steadily creeping dissonance between the markets that held share of mind within Intel, as it were, and the growing revenue stream from elsewhere. At the time the firm had literally divided up the market into US and "Rest of World." To change rest-of-world from the remainder category required ethnographic intervention. Moves had to be made to convince the company of the specificity of this lumpen Other, and that to successfully operate in these markets the company had to recognize that one size did not fit all.

Here, ethnography filled the rather traditional role used by anthropologist of de-mystifying the Other, but did so in a particular way. The practices of the Other were not in need of explanation; rather the very existence of the other was in need of assertion. Our mission statement at that time, and self-conceptualization, made this move: "Uncover new uses for computing power, identify important activities that are not well supported by technology, and understand barriers to technology adoption by studying ***real people in their natural live environments***" (emphasis added). Our very existence was in a sense an assertion that the Other existed.

The tool of choice to perform this assertion was the photograph. The visual language of the photographs used varied somewhat from ethnographer to ethnographer and ranged from the semi-staged informant shot which prompts "this is N, she is a middle aged woman from Rio, she lives here, and she does X", to the 'computer sits in some unfamiliar context' shot. The photograph in these instances may or may not have been used as a kind of visual notetaking for some broader analysis, and one can make all sorts of evaluations about whether the selection of picture was representative or exoticizing/in or out of context[1]. At the time, though, there is a sense in which the picture itself trumped all. It made a move that no amount of insightful argumentation could: it said for rest-of-world "we are here, we are real." Pictures spoke louder than even dollars in these conditions[2].

Using pictures was started as a part of triangulation of data. Pictures, combined with interviews, observation, diaries, inventories, projective questions, shadowing, etc.helped analyze the data. The pictures, however, became the expected output. The pictures, unlike models and frameworks, could be shown and showed the supposedly manifest obvious. As such, what became hidden was the analysis that the ethnographic team had done. A subtext of the presentation then became, take pictures because they show the real, which does not require interpretation or analysis. In this unanticipated way, the work became something that anyone with a camera could reasonably do. It was, after all, observation and "deep hanging" out. It was "natural". Everyone looks and everyone can talk and hang out. The language of the mission statement echoes this natural, that is un-theoretically informed analysis, by talking about this as "natural". What is lacking is the notion that cultural and social behavior needs to be what Geertz called "read" , i.e., actively interpreted. Here one can easily recall

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[1] There are quacks in every profession and in the end we choose to take it on trust that our colleagues performed proper analytic work to make points about the pictures

[2] By this we mean the revenues from these areas in no way matched the corporate interest in them.

the example of a difference between a blink and a wink – same action that needs to be analyzed and interpreted or "read". The historical legacy has meant that the form (the photograph) is now being adopted without the function (active interpretive work).

This use of photographs, originally a knowing practice successful in its desired effects, is now institutionalized. It is still largely impossible to give a presentation without photographs, though some in our group have experimented with giving presentations relying solely on photographs, without text. Text only will not do. The reverse, however, has been made impossible. What once was a pathway into the organization is now an expectation from which it is difficult to be dislodged.[3] Indeed the bar is being raised to have more and "more professional" photos of real life as part of the presentation to make it convincing and to make it "real" for the audience. Having succeeded in the struggle to get ethnography on the agenda as a legitimate way of coming to understand technology markets, the message that 'people are real' is not necessarily the dominant message we wish to make, yet everything about the ethnographic brand creates this sort of noise over which more substantive points must be made.

Quotations have a similar story as photos. In academic contexts, of course, one quotes both colleagues and research participants. In industry the use of quotes tends to be a one sided affair, relying solely on quoting participants in research. Again, both of us have found ourselves using quotes in highly strategic manners, to make points that need to be made that we hope are both correct ethnographically as well as commercially significant. The behind the scenes skill involved in doing this in a way meaningful to the ethnography will vary from researcher to researcher; however such skill is almost beside the point, as it is still widely performed as an offstage affair. The message sent to the audience is that the researcher has a directly ascertainable pipeline to a potential customer. Indeed, the types of quotes that are most often presented are not presented to be deconstructed for the audience, but to be consumed as truth out of the mouths of the customer. This type of quote temporarily absents the interpreter, and in the extensive reliance on quotes, the ethnographic brand suffers from a more systemic downplaying of interpretation. If real people are capable of speaking for themselves (and the use of quotes seems to remind the audience of this), then it is not at all difficult to understand the ethnographer's job is one of simply capturing the real quotes and bringing it back. With tongue slightly in cheek we use a quote to underscore the reality of this effect. In a recent meeting a senior engineer described an anthropologist's work as having "done drilldowns and got verbatims." The notion of collecting 'verbatims' has gained so much currency that now non-ethnographic researchers from other parts of the company now ask us for advice on how to elicit and select 'verbatims'. Indeed, we have been part of several in-situ research studies when video cameras have been turned off or pointed in a particular direction when participants have been asked to "repeat what you said" in order to capture this real quote on video. The language of

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[3] We use photography as our example here because it is an older practice within our group, however, video has the same trajectory and effect. Indeed, in some ways it has become the new "real" medium.

verbatim is part of the corporation, not ours—but the effect, we argue, is partially traceable to our actions, which prioritized seemingly direct speech as a way of knowing customers.

We have highlighted just two examples, photographs and quotations, of among the many possible ones that we have routinely used. We used them to illustrate the way that our data and our representations of data produces a linearity of truth effects, especially in the way "real" have been re-interpreted by the various audiences of ethnographic work. One issue for 'us' ethnographic researchers then is that by using "the real" people through real photos and real quotes, through this naturalistic "finding" or "discovering" these gems in "real life", we down play much of the "real" work that goes into producing an ethnographic representation. We fail to highlight the analytics of our work and the value those bring to making a coherent argument about data, which in this linear model of truth effects is made distant to the researcher. By doing most of our "real" work, that is what happens out of the field, behind the scenes, we inscribe a "naturalness" to what we do as research, as if it were butterfly collecting or train spotting. We, and much of industrial ethnography, has indeed worked hard to conceal the complexity of our work.

There are, of course, claims in circulation that attempt to resist being taken for butterfly collectors. In marketing materials and in responding to journalist enquiries, 'we' often point out that there is a difference between what people say they do and what they actually do in order to show that ethnography, rather than other models of research, has unique capacities to get at what is 'real'. Again, in the corridor conversations amongst industry-based colleagues, or the mailing list posts on Anthrodesign (an Internet group and essential communication means within this community), this claim is both asserted, contested and deconstructed. The authors are not innocent of these claims; for us it has served as an important means with which to differentiate ourselves from the focus group world and market research surveys. With it we have been able to perform a dialogue between the firm's market research and our own work: when x percent of people say they buy a laptop for education, having the say/do discourse in place puts us in a position to say that perhaps ethnography might show that "education" was taken a little more loosely by the respondent than the question suggests, and that it "really" has to do with, for example, kinship. What they've 'said' may not in fact be what (business people think) they 'really' do, which in turn positions ethnography as a legitimate enterprise to undertake.

The success of the real people trope has been remarkable. It has particularly served well as the engine of media attention. A recent article in Business Week (2006) for example, while otherwise sensitive to the contingencies, cautions and ethnography's use in answering big questions rather than identifying immediate requirements, still began the story with imagery of middle class, middle aged, bespectacled people in lab coats peering into a mock dollhouse, populated with computer and mobile phone users For a media piece that refreshingly did not resort to discussion of natives and exoticism, and that in a sense 'got' the breadth of what many of us do, it was striking that they thought a general business readership needed such an image to de-naturalize observation. Though wildly inaccurate in lots of ways (who wears a lab coat as pictured in the Business Week article), it is also

strikingly and unsettlingly recognizable to the sorts of epistemological claims 'we' have been making. It connotes particularly the sort of checking up on people evoked in the "difference between what they say they do and what they actually do" claim.

On one hand the say/do discourse alludes to the panoptical—that humans are not to be trusted in how they account for themselves and therefore ever more data must be collected. For example, one frustrated market researcher, who had internalized this notion of differences between saying and doing, commented to one of us that he knew his respondents "are just saying any old stuff when they talk about what they do. It's like I just can't get to the truth no matter what I ask." The 'doing' element alludes to actual buying behavior, which in this context is the final validation of knowledge. At the same time this aspect of the ethnographic brand holds out the possibility of a relationship: that this behavior is ultimately human marks it as 'social', that what they say they are doing has a singular set of referents back to behavior, which is ontologically prior and an object of fallible recall. Knowing 'real people' is panoptically possible—more researchers, more lab coats, more clipboards—and yet always elusive. This distinctions summons both the relationship-building of entanglement and the distancing involved in creating impacts, without committing the ethnographic brand to either move

The quote, the photograph, and the saying-doing distinction served multiple interests: in a context where ethnographic work was struggling to gain a foothold, it asserted a substantive 'reality'—in our case, that there are 'real' customers out there which the business is ignoring—but also an epistemological claim that 'we' also can produce truth effects. As we will discuss in the following section, the 'reality' claim is used to trump other competing sorts of knowledge, which can be then repositioned as mere 'artifice'. Through the way it is practiced, however, one can see how this claim hinges on a doubling effect. The artifacts such as quotations and pictures double as **both** data and performance of knowledge. They are both waypoints to the conclusion, and thus mark out a claim to having done research, and double as assertions of that conclusion; i.e., this is what we found.[4] The assertion is persistently structured by a certain metaconversation, that people are in fact 'real', which is reproduced as a surprise.

The doubling works, however, at some cost. The issue is not the skill, sensitivity or reflexivity with which these things are mobilized; what we are questioning is the effect that their very predominance has on what it is 'our' audiences are able to hear. If our audiences now feel able to adopt the artifacts of 'our' epistemology as their own knowledge practices, without even recognizing the intellectual paths that were forged to produce part of the dual effect, this must be because we still are understood as collecting what is naturally 'out there'. Though legitimizing effects of social science degrees gives us some authority, the message

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[4] An analogous doubling process, is of course a part of interpretive work. The data is dually constituted as 'data', once in the field and once again in a second 'fieldwork' of disciplinary knowledge (see Strathern 1999). The point is that the other doubling short circuits the plausibility of these interpretive processes as either unknown, or unknowable—a kind of shamanism that relies on secrecy for its effect.

that 'we' do more than butterfly collecting (Leach 1961) is comparatively left in the background. While there are many differences that divide the industrial ethnography community, from the most scholarly among us through to those only loosely aware of ethnography's anthropological origins, from the actor network inclined to the ethnomethodologically inclined, these differences are blunted by a shared set of now institutionalized practices through which we are now marked.

In the next section, we discuss how this brand has been shaped not just by our own deliberate practices, but instantiated by other knowledge practices in industry. We address both how industry has appropriated epistemic cultures from university research environments, and the way in which particularly the technology industries have produced a view of the world that renders the presence of people an unending surprise. We hope such an archaeology will help inspire new possibilities and new engagements in a post- 'real people' world.

'Real' Talk and the Economy of Research Knowledges

There are broader social configurations of knowledge practices in which industrial ethnography has situated itself. 'We' ourselves are not the only authors of the industrial ethnography story, even within individual firms and engagements. As Baba (2005) argues, the historical moves to distance academic anthropology from applied anthropology left the category of theory–and who can properly know it–hugely problematic. Here we argue that there are wider dispositions and frameworks for knowing what counts as valid or useful knowledge, and that these come from both the wider way in which industry has appropriated other research practices, and the epistemic practices involved in situating the relationship between firms and their markets.

Through the various strategies of creating truth effects, but most particularly in the professed difference between what people say and what they do, ethnography developed a connection with observation practices in the minds of 'our' interlocutors. What observation came to stand for was in part drawn out of disciplinary training, but was instantiated through the necessity to differentiate 'ourselves' from other means of finding out about the world already ingratiated into the economy. Being taken seriously in a social world suffused with other knowledge producers at once means differentiation: what made ethnography different from surveys? Psychologist interviews? Lab-based experiments of people interacting with objects? Following Knorr-Cetina (1999) again, a lab is not a lab is not a lab: observing the world can take the form of large scale staging and simulation exercises (such as high energy physics, where nothing is directly observed and yet the 'whole' is staged), to bench work requiring active involvement (her example is molecular biology, where a partial view is made possible through active manipulation of materials). In a sense 'ethnography' became a catch-all leftover category for describing that which takes place outside other researchers' seemingly contrived contexts. It marked a sense of being beyond someone else's work, the boundary objects that signaled their expertise. In finding data in the 'real world' (wherever that was), there is an implicit criticism of the artifice of the survey, focus group or lab

experiment. Photographs became the artifact of choice to demonstrate not only that what one saw with one's own eyes was real, but that there was 'natural' setting, supposedly free of artifice and constraint.

A continuity of sorts was also established. The psychologists, computer scientists and designers with whom we extensively worked—many of whom pioneered the use of ethnography in industry—did not have naïve, unconstructed ideas about what observation was. The mere taking things out into the wild, with the same cast of characters, would not on its own necessarily change epistemic undercurrents. In a sense the anthropologists performed a sleigh of hand of sorts, allowing ethnography to be perceived as analogous to that which is readable in a lab setting, but happens in the wild (and therefore implicitly 'better', involving 'more' data). The implication was that if one could just get beyond those boundary objects, one could see for oneself what was 'really' going on. By focusing on simply getting beyond these boundary objects, another implication went uninterrogated: that we were not just observing what occurred naturally, but that observation itself was also a 'natural' process. In psychology labs, for example, technologies of equivalence are developed to make what happens in the lab equivalent to what happens in the 'real' world (the blind and double blind experiment, for example). The human intervention is in the staging of it all, and the act of looking is assumed away as a natural property of eyes. This is not to accuse psychologists of lacking interpretation or analytic powers, but simply to note that the sociality of epistemological arrangements locates the validity claim in the technologies of equivalence rather than the capacity of the experimenter to actually see what is going on in his or her own lab. If ethnography involved no such human staging work to validate it, it seemed instantly accessible to all and sundry. Hence it continues to be adopted in so many quarters. We can all 'see' with our own eyes. In emphasizing 'more' data, we opened ourselves up to ethnography being seen as natural observation.

Such claims to access to unfettered reality did not just work well **vis a vis** the competition, allowing us to both distinguish ourselves but also play nicely in multidisciplinary teams. They also resonated with engineers' sense of the concrete and tangible as the convincing truth effect. It is worth remembering that industrial research and development historically has aligned itself with engineering and natural sciences, and that market research, associated with supposedly 'softer' knowledges, has largely been used at the end of the product pipeline rather than the beginning. Historically at Intel, and to a significant extent elsewhere, ethnography has been situated in the context of R&D rather than as shaping post-product development marketing opportunities. This positioning has everything to do with how epistemological questions give shape to organizational power. The empiricism implied by R&D in turn is a wider privileged model of doing things within technology corporations. Intel in particular has many senior managers who are themselves engineers, which renders it no coincidence that decision making is rooted in a sense of being 'data driven'. By situating ourselves in the context of product innovation, we made an analogy between our knowledge and engineers' epistemologies: both are establishing and validating data on which decisions are made. The equivalence is not a disingenuous one—

there is an element of empiricism, however cautious, literary, and postmodern, to ethnography that affords such a positioning.

Psychology gained a foothold earlier than anthropology because its truth effects were based around notions of what human beings 'essentially' are, allowing for 'fundamental' research. In constructing ethnography as that which occurs before rather than after products are made, and therefore a kind of research linked to technical innovation, a certain ontology of the person was produced. Real people formed the analogue to engineer's real technologies. That the real people sometimes actually used real technologies produced an aesthetic of haptics which tied together this epistemic circle. Technologies were touchable and therefore knowable, peoples' flesh, touching the keyboard or holding the phone afforded both an equivalence to engineer's sites of knowledge production and a way in to claiming relevance. This circle has lead to a now semi-institutionalized commitment to design as the obvious endpoint to ethnography. It is now difficult to 'shift' what ethnography is 'for' into other realms, such as business model strategy. This commitment to objects and design has been reinforced by certain developments in the late twentieth century economy, to which we now turn.

'Real' Talk and the Epistemics of Technoeconomies

The economy plays an important role in the making of "real" ethnography in industry: for Intel it was certainly hardware engineers who were the decision makers in need of convincing. In a broader sense, the multinational corporations which led the adoption of ethnography were in fact IT companies. This bias towards the 'technological' necessarily shapes the broader consensus not just about what counts as valid research knowledge, but what counts as knowledge relevant to companies. We must remember that in a world suffused with intentionally produced artifacts what counts as a technology is not in any way neutral, but a claim that validates some knowledges at the expense of others (Wajcman 1991). The widely invoked imagery of an 'information economy' 'knowledge economy' or 'networked economy'—all of which is grounded in a view of the 'effects' of technology–loads the dice towards particular epistemologies and misrecognizes others as unskilled or unknowledgeable (see Nafus 2003). One wonders what kinds of self-descriptions industrial ethnography would have had to make for itself if the world economy had undergone a 'bioscience boom' instead of an 'Internet boom'[5], or if 'we' had more frequently worked with advertisers instead of designers and engineers. What if, as in legal communities, language was the technology of choice, imagined to instantiate profound effects for which electronic networks are now given credit? There is, of course, a huge diversity in the sorts of people that 'we' work with; our claim is simply that the way in which the late 90s networked/information/knowledge economy imagined itself as an engineering one (see also Kotamraju 2003, Barry 2001) privileged the notions of reality that the 'real people' discourse evokes.

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[5] Of course a bioscience boom has also taken place; still one could argue that it was the fantasies of the dot com era that captured imagination and steered financial markets.

This privileging requires interrogation, particularly if industrial ethnography is going to grow beyond current fashionability into a core competence in innovation and technologies across a wide range of economic practices. Strathern (2002) has talked about Euro-American cultures as a social milieu that constructs technologies as unfolding according to a logic independent of human intervention. The social science of technologies, she argues, often tries to recover the various human interventions that shaped it. That human construction is not obvious, and such recovery efforts are of continual value, says much about an enduring context. She argues that a notion of contextless has already been pre-figured. One can see this most directly in the wild popularity that Christensen's (1997) notion of disruptive technologies has recently enjoyed. Disruptive technologies are said to come from an imagined 'nowhere'. The notion of disruption presents the material world as something that takes everyone by surprise. The 'nowhere' is nowhere because it does not sit within notions of what 'society' contains; the production of technology relies on an implied exogeny where there is an autonomous march of seemingly asocial objects that plug into walls, which in turn has impacts on society. Woolgar calls this rhetoric of impacts 'cyperbole' (2002).

Previous work has discussed how this view of context—the asocial 'nowhere' from which technologies come—is a necessary premise for how states, high-tech companies, and even non-profit organizations construct economic agency (that is, the capacity to act as economic entities) (Nafus 2004). This is not simply bad social theory on the part of firms that hire us which perpetuates the belief that technologies are a-social in need of social context, but an absolutely essential cultural element that people draw upon to make economic action happen. The imagined separateness from society, the implied exogeny, is a necessary component for markets and competitors to recognize that novelty has taken place, and therefore that innovation has happened.[6]

Agency is in this way structured as an oscillation between both exogeny and entanglement.[7] Value is created in the act of launching a product, and creating 'impacts' upon society. In this constant oscillation, it is in fact a repeated surprise that our 'real people' continue to use these objects. The forgetting that people are involved is an active forgetting for particular ends. Industrial ethnography, and in particular the 'real people' aspect of its brand is a key element of this model of value creation. Each of the above mentioned ethnographic strategies mirrors the kind of oscillation between contextlessness

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[6] However, in another sense technology companies know quite well that they survive on the basis of social entanglements. For example, Neff and Stark (2003) have written about software firms as in a state of permanently beta, entangled in a network of customer expectations, user de-bugging, and technology coproduction. Indeed, in the software firm that Nafus (2004) studied, these entanglements were so deep, and customer relationships were so close, that they were actively working to hold back on releases and updates in order to be able to 'launch' something that appeared to be new. Constructing the software in this way enabled it to have a life of its own; that the product launch was launched only on those who already had a pre-release version was neither here nor there. Novelty had been successfully produced.

[7] See also the debate in Economy and Society (introduced by Barry and Slater 2002).

and entanglement such technology-inspired economies depend on. For example, it is no surprise that pictures of people with technologies already on the market, the laptop in the café or the mobile phone in hand, continually generates more interest than those not featuring technologies, there to represent potential but untechnologized 'need'. In the technology shot, "the surprise" that structures notions of innovation is built into the picture. Computers in Indian homes, on teenager's laps in Estonia or in the hands of maids in Brazil contribute to the ongoing meta-story that the world is changed by technologies. The other artifacts in these shots are not even recognized as technologies, and through this interpretive absence the pictures establish that 'innovation' has occurred. The notion of entanglement is also built in: the technology shot is a moment of recognition of the unanticipated social trajectory of these technologies, and the viewing of this shot is a kind of recognition of that sociality.

The usage of research participant quotes further underscores the sense of entanglement that companies largely already see themselves involved in. That customers might speak back is *already* embedded in business practice; their voices are an ordinary feature of business life. As this relationship is imagined to already exist, mediation is not obviously required. Or rather, the need for interpretation is made obvious only when cultural difference is assumed. In this sense it is not coincidental that the adoption of ethnography-like practices by market researchers centers on the notion of customer voice, and limits itself to those customers that appear to be easily understood. The quote strategy, too, bears a striking resemblance to a Baudrillardian hyperreal (1994). While the asserted reality of real people makes alludes to a sense of groundedness, the ease with which our interlocutors and adopters of ethnography fill in context with their own set of experiences suggests that there is no unproblematic authoritative 'context' from which speech emerges (Baudrillard 1994). In a technologized economy that uses ethnography to construct the nowhere from which technology emerges, the stand-alone quote is in fact the truth that conceals that there is none. It points to a seemingly external context that is being constructed inside the corporate meeting room. Such re-constructions are an ordinary part of how power plays out in social relationships: one construes the other beforehand, in the instance of interaction and post-hoc. At its worst, it is the truth that conceals the privilege with which technology producers can re-construct others' voices to their own ends. Nevertheless, this distributed and mediated conversation is, in a sense, authentic: technology, after all, really does 'impact' society.

Conclusions: The Fate of Real People

The way in to corporate settings for 'us' has been to knowingly situate ethnography within a complex set of epistemological strategies, in our view dominated by a larger conversation about how 'innovation' happens. We can reflect upon this as the "real people period" in corporate ethnography. To establish new fields in commercial contexts, and perhaps too academic ones, one must give audiences as much to go on as possible, as many handles into the work with which others might engage the knowledge presented. We asserted one way ethnography has done this is through the use of "real." At the same time,

what starts as a way in has rapidly become a kind of institutionalization. The expense has been a kind of naturalization of our work; at its worst a kind of butterfly collecting that surprises no one. The irony of course, is that just as everybody is their own designer (Gerritzen 2001), everybody is their own ethnographer. People have active sensibilities of what constitutes 'context'; ethnographers do not have a monopoly on this. In performing a sleigh of hand which leaves ambiguous the relationship between data and conclusion, and absents the active intervention by instantiating the two in the same instantly knowable artifact (the photo, the quote, the panoptical observation), 'we' draw on audiences' capacities to reflect on their own social situatedness. It was critical for us to create this "real" framework in order to be established, but it is equally critical to move beyond it. Remaining in the "real period" as the "voice of the customer," an eerie corporate embodiment of real people as ghosts, or specters, brought to the life by corporate ethnographers to haunt engineering, product development and marketing teams, is not healthy for growth of the field. It was, however, a starting point.

Our question, is how do we expand our presence and value in the corporation? What is next after the "real people period"?. What we do have to offer is a fairly reliable set of concepts and models of social life with which to make situated generalizations, and thus good knowledge practices with which to make sensible decisions about product development, business models, advertisements, human resources strategy, etc... Ethnography and ethnographers have so much more to offer our audiences and potential audiences than capturing or finding or discovering "the real". These further opportunities must be realized if we are both to continue to grow as a field and be recognized for our contributions within the corporation.

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"Why are you taking my picture?": Navigating the Cultural Contexts of Visual Procurement

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This paper explores how methods used to procure ethnographic visuals transition between different cultural histories and varying visual vocabularies. We use an instance during which we were detained (and the police summoned) after taking photos of an apartment building in Cairo to illustrate how these transitions can lead to unexpected and serious consequences with which ethnographers must grapple. We argue that considering factors such as geo-political context, notions of giving and receiving, boundaries between private and public, as well as a culture's historical relationship with photographic and documentary processes, are all essential to developing a critical position on visual procurement in the field.

This paper comes out of research conducted in early 2006 that focused on cultural understandings of the home (and the role of the PC in it) in 'middle-class' families (defined locally) in Egypt, Germany, South Korea, and Brazil. Among the methods used during our research was visual documentation, the practice of which became an important point of a series of discussions between us as we worked our way through these countries. This paper is structured as a conversation between the authors, and reflects our formation of an ethical, politically-situated, and culturally-aware response to the hypothetical question "Why are you taking my picture?"

JAY: …so the question of how visual ethnographers operate in the field reminds me of a quote:

> "There is a tribe, known as the ethnographic filmmakers, who believe they are invisible. They enter a room where a feast is being celebrated, or the sick cured, or the dead mourned, and though weighted down with odd machines entangled in wires, imagine they are unnoticed—or, at most, merely glanced at, quickly ignored, later forgotten" (Weinberger 1994:3).

I know a lot of visual ethnographers who might take issue with this portrayal (especially those who diligently integrate reflexivity into their work), but I think it's possible to argue that much of the practice of visual ethnography operates within the 'ruins' of subject-object relationships born out of colonialism.

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In the context of that history, ethnographic filmmaking began as a salvage practice. Weinberger states that "[w]here travelers had gone to collect adventures, missionaries to collect souls, anthropologists to collect data, and settlers to collect riches, filmmakers were soon setting out to collect and preserve human behaviors: the only good Indian was a filmed Indian" (Weinberger 1994:4). In these early works, visual ethnographers generally presumed that their subjects were always willing participants, drawn to the filmmaking process either out of curiosity, a way to attract attention to themselves, to improve their status, or to use it as some sort of confessional therapy.

Contemporary subjects of visual ethnographies may share some of these perspectives, but work among research participants who have some understanding of the discipline and its tools can become complex very rapidly. In my more traditional fieldwork experience in Mexico (Cooper, et al. 2004), urban Los Angeles (Meshkati, et al. 2005), and New Mexico (Hasbrouck 2000; 2004), many people gladly 'subjected' themselves to the ethnographic gaze. However, as my relationships with subjects developed, I sometimes found myself battling a set of expectations from subjects who tied my relationship with them to their impressions of anthropologists. I was the "culture guy" in whatever version they believed it to exist, which more often than not carried associations with structural-functionalism. I was to be the expert on them, "my people;" to define them, to fix the constellation of their behaviors within a closed paradigm.

In terms of ethnographic data, this dynamic can produce responses and reactions to ethnographic queries that are highly conditioned by subjects' assumptions about ethnography and its practice. For example, this occurred in my fieldwork when subjects screened information they felt wasn't relevant to the study of culture (i.e., interpersonal quarrels, etc.), or in their efforts to direct and determine the content and framing of visuals in my work. Of course, this could be interpreted as means by which some subjects exercise their influence over ethnographic practice.

Yet, there are more extreme strategies of resistance that research subjects deploy. Visweswaran (1994) reflects on her subjects' refusals to participate in her research, as well as the feelings of betrayal her work might trigger among them once she's published. My own work with the Earth Liberation Front green anarchist network concludes that silences and refusals can actually open up new spaces that allow for different discursive frameworks:

> ... my refusal to claim ELF [Earth Liberation Front] activists as 'my people' has intersected with ELF activists' refusal of the subject in ways that create a conceptual space into which we can contribute to the discourse about ELF actions and their socio-cultural significance without necessarily privileging ethnographic practice. While my contributions obviously integrate anthropological perspectives (the questions I ask, the analyses I undertake, etc.), our mutual refusal of some of the roles ordered by the traditional anthropological research paradigm can provide an opportunity for ELF activists to better control the contexts of their

contributions to the study, and for their contributions to be conditioned by a broader or different range of contexts (Hasbrouck 2005:31).

In addition to issues of authorship and refusal, I think it is important to recognize that visual ethnographers are politically situated in the field. Even in what might be considered relatively 'neutral' public spaces, the complexities of framing subjectivity (literally) can sometimes become painfully evident. Our recent experience in Cairo illustrates this well.

SUE: We were a team of three white American researchers and one Egyptian translator in his early 20s who had just left an ethnographic interview with a family in the Heliopolis neighborhood of Cairo at about 10PM. After spending almost three hours talking, videotaping, and taking lots of pictures with the family, two of us stayed in documentation mode as we left the building. Even though it was late, and dark out, we snapped a few pictures of the front of the building to document the structure, and add to our growing collection of images of home exteriors.

As soon as the first flash went off, an elderly woman on a balcony stood up and called down to the doorman (superintendent) of the building. The doorman summoned our translator, Mo.

JAY: While we were piling into the car, Mo was responding to a barrage of rapid-fire questions from the woman and doorman as best he could, without making much impact. After 10 minutes or so of this back and forth – during which the older woman was getting increasingly upset, Mo returned to the car and told us that he needed the consent form that the family signed so that he could show it to the building owners. "This seems reasonable enough," I thought as I dug through my pack, pulled out the document, and handed it over. He disappeared into the building with the doorman, and we began to wait. And wait, and wait, and wait.

Eventually, I decided that a little intervention was what the situation demanded. I got out of the car and proceeded to the front of the building where I was greeted by two younger men peering at me from the same balcony formerly occupied by the older woman. I explained our reason for being there, and after another 20 minutes of back and forth, interrupted occasionally by a loud street car that made communication impossible, I was told that my friend Mo was nearby making a copy of the document I gave him, and I was cordially invited to come up and wait for him. I entered the by-now-familiar building, and climbed to the first floor where I met a resident named Mohammed and his brother Ahkmed. I proceeded to review the nature of our research, our visit with the family on the third floor, and how both related to a computer company called Intel.

SUE: After some time and a great deal of confusion we all ended up back in the building, and spent about two hours in the elderly woman's apartment while a group of Egyptian men argued loudly and passionately. The argument began with a demand for "the film." We

explained there was no film, the cameras were digital. That concept was not familiar to the group and resulted in more discussion, and the absence of an easy solution to the problem.

We offered to erase the photos, but the argument had escalated and the offers were ignored. There were at least a dozen people, all men except for the two women on our research team, crowded into a small reception and dining room. Cell phones were in constant use as advice was sought and the news was spread. Other men from the building arrived to lend a hand in the drama unfolding. While most of the men argued in Arabic, two younger men flirted with the American women in English. Drinks were offered repeatedly and were kindly refused until it became clear the refusal was only making matters worse.

We sat uncomfortably listening to the prolonged and apparently heated argument, and had no way to know what constituted the main issues of the dispute. We thought, "If this is about the photos, we'll gladly erase them and go." But it became clear our presence and our photo-taking were the trigger point for an inter-building argument that might have little to do with us. The situation seemed absurd. The elderly woman had reacted strongly to us taking photos, and she seemed annoyed and maybe even alarmed by our presence in the building, but hadn't we sufficiently shown our good intentions through offering to erase the photos? Hadn't our presence and willingness to cooperate assuaged some concern about us and our activities? What was the woman so concerned about? How could we definitively convey our good intentions? While I couldn't be sure what had addled the elderly woman, I was even more perplexed by how many men had arrived at eleven o'clock at night to join the discussion. Had we become entertainment for a bored building late on a Sunday night? Why couldn't we leave? And why were they holding our translator's legal papers?

FIGURE 1 The photo that sparked "The Cairo Incident"

The father of the family we had interviewed was summoned and had to change out of his pajamas to face the angry roomful of men. Two young policemen arrived and disappeared into a bedroom with several men from the building including our study participant. Everyone in the room was using cell phones, so I took out mine and managed to get in touch with a colleague from Cairo who helped from across the city by asking a policeman friend to intervene by phone. The police in the apartment insisted that

the events be documented on paper, and the concerned men from the building asked for business cards from everyone, and took careful notes on each of our names and business titles. Eventually the matter was settled to the satisfaction of the authorities, and we were able to regain our translator's legal papers. The evening ended as strangely as it began. We were thanked profusely for our time, and encouraged to finish our drinks. Smiles and handshakes, plus a few email addresses, were exchanged. The mood was suddenly light, and the vibe in the room changed from uncomfortable to friendly. They seemed to be saying, "We're all friends now. No hard feelings," as we finally walked out the door.

JAY: When we were in Cairo (February 2006), there was palpable political tension in the air. Between the fury over the recent publication of a cartoon depicting the Prophet Mohammed in a Danish newspaper and President Bush's continual barrage of clumsy and inflammatory statements, a nervous buzz seemed to underlie many of our interactions. On the 17th we took a trip to a major mosque in the center of the city and began to see more concrete manifestations of this tension.

SUE: Excerpts from our field notes might help put this into context:

While I didn't understand any of what the Imam was saying, his voice was obviously building in force. He reached a crescendo of passion and anger and I wondered if he was talking about Bush and Iraq (Angy—our host— later confirmed that he was). When the service was over several women came up to us and handed us sheets of paper with lists of Danish products and services we should boycott. I asked Angy if such a list exists for American products and she said yes, and it's much longer.

JAY: On another day, we were exploring Abdul Aziz street and encountered the following:

…We decided to check out an appliance store before shopping for cell phones. We enter one nearby (Angy accompanied us and translated) and are met with some stares, a little interaction in Arabic, and then some laughter. As we browse the store, he explains the various products he carries and that many of the people who buy at his shop are newly wed and looking to furnish their homes. Barbara begins to take pictures of the store, but is asked to stop. As we are exiting the store, Angy confides in us that when we first stepped in, the conversation she had with the salesperson was about our national origin. He asked if we were Danish, and when she replied "No, they're American," his response was "That's worse, but I'll talk to them anyway!"

SUE: We'll never know precisely what concerned the elderly woman and the doorman the night we were detained in Cairo. Were they alarmed by the presence of strangers in the building? Was the concern only related to the photos? Would they have stopped us as we left the building even if we hadn't taken photos? We never got a full explanation. When we asked the two young English-speaking men what was going on, they told us about "researchers" who had recently been in the news. A team of researchers had gone into an apartment building in Alexandria and asked for samples of residents' blood. All the

residents who agreed to give blood later died. They implied that the woman (their grandmother?) found our photo-taking similarly dangerous.

While a team of any kind of researchers might have caused concern, we wondered if being a team of foreign researchers was even more alarming. During the almost three weeks we spent in Cairo the topics of George Bush, the Iraq War, and the Danish cartoons came up every day in a variety of contexts. A conversation with a teenage boy in an Internet café began with him asking us, "Are you American? Do you like Bush?" and, "Do you believe we're all terrorists?"

Anti-American and anti-Danish discourse was on TV, in the newspapers, on the Internet, in casual street conversations, and in sermons at the mosque. So, was it the photo-taking that was an issue for the woman and her neighbors? Or was it the presence of foreigners in the building during a particularly tense time in the Middle-East?

JAY: I would argue that our experience was also conditioned in some ways by a brand of visual literacy specific to the middle east. The history of photography in Egypt is linked, perhaps not surprisingly, to colonialism and Orientalism (Said 1979). It may very well be the case that suspicions about our portrayal of them as terrorists is a response rooted in a long history of negative Western portrayals of the Middle Eastern 'Other.'

Western viewers considered early photographs as the first authentic glimpses of the people, sites, and monuments of the Middle East. Until the 1870s, audiences in the West depended upon these images for their understanding of the region. In fact, most were being marketed to armchair travelers who viewed these pictures as representing the real thing. Yet many of these images were used – covertly and overtly – to advance colonial impulses in the region and Western ways of thinking about the Middle Eastern culture. For example, most of these early photographs recorded the inhabitants of the region as backward people, thereby perpetuating Western prejudices.

Western audience's assumption that photography was objective put these images beyond question, as is the case with the staged studio portrait of an old man praying. The photograph belongs to a popular genre of Muslims at prayer. Everything that was deemed perverse about Islam was distilled in Western reactions to Islamic prayer, which was seen as too ridiculous and grotesque to qualify as proper worship. The photograph positions the viewer directly before the old man in the very place of the God to whom he would be turning in worship. Evident in the image is not only the lack of respect for indigenous people that was typical of this work, but also the presumption of the photographers and Western viewers in their relationship to Eastern peoples. The old man's apparent compliance in the staging of the photograph only reinforced this presumption (Harvard University Art Museum 2000).

While it may not be possible to directly correlate our detainment in Cairo with this history, it seems likely that contemporary Egyptian understandings of the uses to which

photography has been (and can be) put are informed by it. Even if we assume that they did not suspect us of positioning them as terrorists, it may have been the case that the Orientalist history of photography in Egypt predisposed the apartment dwellers to suspect that we were somehow exploiting them, for financial gain or other purposes. When you add to that predisposition the fact that we had not asked permission to take photos of the building from the doorman or the woman on the balcony, speculation on how these images might be used can easily run wild.

SUE: The questions, "Why are you taking my picture?" "What's the video for?" and "Am I going to be on TV?" come up all the time while doing field work. When I first started shooting documentary-style footage for design research in public spaces everyone wanted to be on camera. Working at Lollapalooza in 1994 I was constantly mobbed by kids asking, "Is this gonna be on MTV? Are you from MTV?"

In most public settings these days the camera is assumed to be a tourist device. Problems typically arise when it's being used to shoot something not typically touristy like passengers waiting for a train in the Seoul subway, or the front of a Cairo apartment building. Some of the strangest looks I've had lately were from residents of a small town in northern Germany who couldn't understand why I was shooting video of a street intersection and passing vehicles.

Bonfils Family
Old Man Praying, 1867-76
Albumen print
Harvard Semitic Museum
Photographic Archive, Visual
Collections, Fine Arts Library

In addition, many research participants have become more jaded, and have seen enough reality TV to know that video can be used to either make them look foolish or to further their cause. In Egypt some participants seemed wary of Americans with cameras. What were we really after? One Egyptian woman we visited nervously adjusted and rearranged her hijab throughout the interview. She seemed painfully aware of the vast cultural (and class?) differences between her and us, and hyper-aware of being filmed.

By way of contrast, I once interviewed a woman in St. Louis, MO who enjoyed being on camera so much that after we took a short break and I turned the camera back on she smiled broadly and said, "And we're back with Donna." What Donna was told, but probably didn't want to believe, is that video footage and photographs shot in the field are used primarily for data analysis, design research ideation, internal communication of findings, and external presentations, conferences, and publications. No one ends up on MTV or Oprah.

JAY: Because these forms of visual literacy are increasingly common, it is more crucial than ever that we integrate how our practice is perceived into our methodologies. Now that digital media facilitates the rapid transferal of portrayals that are commonly recognized as crafted depictions, our duty goes beyond the collaborative filmmaking techniques of Asch and Connor, Carpenter, or Worth and Adair (Asch and Connor 1994; Carpenter 1972; Worth and Adair 1997(1972)). As Minh-ha (Chen and Minh-ha 1994a) and Mullen (2000) have recognized, these attempts are always ultimately positioned anthropologically. They are projects initiated within the discipline's history and framework, and in the end, their authorship and structure is determined by that context, regardless of how much control the ethnographer surrenders in the process.

What we now need to address is an emerging, global visual literacy that is no longer purely receptive, but actively aware of how images are used to construct perspectives, be they aligned with the will of those portrayed or not. Issues of trust between researcher and researched become more important than ever here. As do new understandings of public and private, in which the two are increasingly blurred. One of the most common production paths in contemporary media is the opening of private lives into public arenas.

SUE: And privacy is central to the beliefs of Islam. Islamic law draws a distinction between private spaces and public spaces. In a typical Egyptian home the public space is the reception room, often called the "salon," and the dining room, and in Cairo those rooms are likely to be conjoined. These are the most formal and the only public rooms in the home. Egyptians refer to the public area of their home as "outside" and the private areas (bedrooms, kitchen, bathroom and living room) as "inside." We always started our visits in the formal salon and then were invited "inside."

There is a similar distinction in Islam between public and private dress. Most Egyptian women are "veiled" when they leave the home and go out in public, and are veiled in the public area of their own home. Clothes provide the same service as the walls of the house – they separate the private from the public.

> The link between dress...and sanctity of space is reflected in the Islamic rituals of "dressing" the Ka'ba, the center of the holy site of pilgrimage...The correspondence between the sanctuary of the Ka'ba and the home (as sanctuary) is exemplified in the measures for protection and attitudes of protectiveness in both spheres (El Guindi 1999).

JAY: I think what we're talking about here is a call for a reconsideration of how we as Westerners embody histories of documentation and photography when in the field. While this includes associations with colonialism, scientific objectification, and other forms of hegemony, it also includes new forms of media and entertainment that tend to radiate (and mutate) from the West. If Egyptian impressions of how Americans view privacy are influenced by TV shows like *Real World* and *Big Brother*, we need to adapt accordingly.

I would argue that our response as visual ethnographers should not be constructed from guilty feelings associated with Western hegemony—or some idealized attempt to (pretend to) surrender power to our research participants—but to acknowledge the increasingly global nature of these relationships. When we ***take*** any visuals, we do so under the presumption that they will benefit us as ethnographers in some way (research data, aesthetics, etc.). What we need to include in that process—even in public spaces—is an open exchange and careful consideration of the ways in which our visual subjects might perceive our work, the 'half-life' these images may have, and how research subjects may (or may not) be benefiting from their use.

This could take many forms, and is probably best managed by each visual ethnographer within the context of a given field setting. Certain obvious rules of polite filmmaking continue to apply here (Barbash and Taylor 1997), but they should be supplemented with trust-building actions that acknowledge the kinds of expectations and assumptions that participants and researchers bring to the table. Now, more than ever, this can be contextualized as a contractual engagement (be it social, informal, or literal) that has the potential to make strangers familiar from ***both*** sides of the research relationship. Some examples might include arranging photo exchanges, engaging with visual collections of research participants, involving research participants in the manipulation or electronic transfer of their image, reversing the gaze, etc. In addition, strategies like these are more likely to include research participants in ways that produce much richer ethnographic experiences than simply snapping a photo of them.

SUE: From a very practical standpoint, I think it's important not to be too casual when taking still or moving images in the field. You need to be conscious of your surroundings, and very respectful and aware of the people around you. As Tony Salvador says, "No sudden moves." The night of this incident we walked out of the building energized after a very good interview, having just snapped pictures and shot video for several hours. Perhaps a simple question to the superintendent about whether it would be alright to take photos of the outside of the building could have prevented the incident.

JAY: Regardless of strategy, we can benefit greatly from methodological planning that tries to anticipate scenarios in which our embodiment of perceptions of 'the West' impacts the ethnographic process before entering the field. This should include a consideration of how local cultural and political contexts condition the relationship between researcher and researched in ways that speak to relations of power both in the field setting and beyond. We need to ask not only how (and in what cultural contexts) images are produced, but how those images are increasingly seen as part of a global and digital network of representation that is often rife with politically-charged interpretations.

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Closing Remarks: What Is Our Project?

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At CHI 2006, I had the interesting experience of presenting a paper on ethnography and design that seemed to touch many nerves (Dourish, 2006). Both at the conference, and in virtual settings like the "anthrodesign" email list, a flood of discussion accompanied what were, to my mind, not particularly new observations about the nature of ethnographic work in technological contexts. The topic was clearly more fraught than I had imagined.

In the spirit (loosely) of Tsing's "Friction" (Tsing, 2005), I am intrigued by the disciplinary frictions by which engagements between ethnographic praxis and other disciplinary approaches gain traction, and intrigued too by the different local forms by which such "global" disciplines such as computer science, anthropology, design, and ethnography are brought together in situated and particular effective hybrids.

In the CHI 2006 paper, this manifested itself with a concern with the ways in which theory and analytic positioning, and particularly the notion of ethnographic data being generated in the encounter between ethnographer and site, had been submerged or elided in the forms of ethnographic reportage that are published in that community. My concern was not with implications for design per se, but rather with the rhetorical strategies by which ethnographic insight was made relevant to design communities, and the disciplinary power relations that govern such an engagement.

In more recent (unpublished) work conducted along with Phoebe Sengers, Kirsten Boehner, and Janet Vertesi at Cornell, I have been considering similar questions at work in the uptake of "cultural probes" as a mechanism for HCI inquiry. Since the publication of the original paper on the use of cultural probes by designers from the Royal College of Art working in the EU project "Presence" (Gaver et al., 1999) probes have seen a remarkable level of uptake in the HCI community. This uptake has been accompanied by a considerable amount of adaptation and transformation, often in ways that are fundamentally antithetical to the original intent of the probes work. Similarly, to the extent that probes are used as a data gathering instrument, their use has much in common with the transformation of ethnography in the production of new disciplinary hybrids.

In our investigation, we have not been setting out to adjudicate the "correctness of various interpretations of probes. Instead, our approach has been to take both the rapid uptake of the probes and the sorts of transformation that have emerged as symptomatic of deeper concerns about "multi-methods" in HCI. In particular, we argue that the

fundamental challenge that probes offer is not methodological but epistemological. In contrast to traditional engineering models which frame the relationship between designer and user in ways that deny agency to both, we argue that probes essentially offer an alternative account of knowledge production in HCI.

This is, similarly, the fundamental project for ethnographic praxis in industrial and design contexts, and the emergence of the EPIC conference and community is a heartening development. A question that we all continually grapple with is the visibility of the core of the ethnographic process in our work, and the extent to which our conceptual and epistemological commitments are visible to clients, colleagues, and collaborators. Building on the experiences of ethnography and cultural probes in HCI, I would argue that it is critically important that these be part of the conversation. Where ethnography can have a truly transformative impact into design practice, it is not by providing new or "better" data, but by reframing the nature of the engagement between design and use.

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Waving Not Drowning: Staying on Top of Photo Field Data
Workshop Facilitator: JAN CHIPCASE, *Nokia Japan*

What role do digital photos play in your research? This workshop is for field researchers who want to make digital photos a bigger part of their research process but are overwhelmed by current tools or simply by having too much data. The session will cover processes, tips and techniques to apply before, during and after the field study for making the most of your photos, including such topics as: data consent; batch processing; naming strategies and sharing. The workshop will draw on the experiences of the workshop attendees plus data collection techniques refined in the Nokia Mobile HCI Group.

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Envisioning Ethnographic Practice in People-Centered Engagement Models: Using Tools from the Ethnographic Toolkit to Create Effective Models of Practice
Workshop Facilitators: FRANÇOISE BRUN-COTTAN, *Veri-Phi Consulting* and PATRICIA WALL, *Xerox Corporation*

Various models exist which address aspects of people centered user/client/customer engagement that include ethnographic techniques e.g., ranging from the descriptions of methods from the work of Patricia Sachs to Karen Holtzblatt and Hugh Beyer's Contextual Inquiry, to the 'Designing the User Experience' chutes and ladder diagram issued by the Usability Professionals Association, to name but a few.

" Opened ended interviews, shadowing, observations, participant observations, questionnaires, audio and video taping co-viewings, diaries, representations, mockups and scenarios of use, simulations, envisionments, rapid prototyping", are a few of the tools. What combinations of tools from the ethnographic tool kit have people found to be especially productive? What lessons learned can we share that help avoid pitfalls?

In this workshop we will introduce and review the development of one model of customer engagement that evolved in a multi-disciplinary group over a period of years. We will use this model as **starting** point to engage workshop members in further discussions around tools, methods, and techniques used in, or for, various Industrial settings and projects. How are ethnographic tools and techniques used to gather data, understand, analyze and represent findings, and to report understandings and insights to others in our corporate settings?

We want to encourage vigorous and impromptu interaction among the workshop members. We hope to capture elements, models, and issues which arise during the workshop in ways that can be shared and might encourage further discussion and discovery among ethnographic practitioners in Industry.

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Working with Stories: Tools for Organizational Change
Workshop Facilitators: TRACY L. MEERWARTH, ELIZABETH K. BRIODY, *General Motors;* ROBERT T. TROTTER, II *Northern Arizona University,* SHAWN COLLINS, *United Technologies Corporation*, and GULCIN SENGIR, *General Motors*

Stories can be useful tools for organizational culture change—offering rich detail on topics including relationships and accomplishing work. Stories are windows into what employees often perceive an ideal work culture to be like. The workshop's purpose is twofold: to introduce researchers and practitioners to the various functions of stories (e.g., raising awareness, solving problems, improving decision making, building alternative models, reinforcing ideals, identifying cultural obstacles, offering cultural explanations), and to examine the methodological considerations pertaining to the choice of a story for shedding light on organizational matters, the interpretations associated with stories, and the ways in which stories can be used to stimulate change.

Participants will work through small-group exercises focused on distilling story content, understanding intent, validating interpretations, measuring success, and developing practical approaches to story use in organizational setting—particularly in the face of organizational change.

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Border Crossing: Negotiating Corporate-Academic Research Collaborations
Workshop Facilitators: KERI BRONDO and LISA ROBINSON, *Michigan State University*

Transnational business models, global teaming, new collaborative technologies, and other transformational processes in the global economy have increased the marketability of ethnographic research. And it is no secret that ethnography is now "sexy." This trendiness has increased opportunities for academically-based ethnographers to develop partnerships with major corporations. However, the excitement surrounding this vogue research model has meant that much of the difficulties that emerge in corporate-academic partnerships are

often swept under the carpet. It is exactly these challenges that this workshop addressed. Through a mix of panelist presentations and break-out sessions, participants explore three general topics: the process of corporate-academic collaboration (access and engagement); academic freedom, proprietary information, intellectual property, publishing responsibilities, and presenting "actionable" results; and, the intersection of institutional, professional, and personal ethics.

In the panelist presentations, Julia Gluesing (Wayne State University) and Christine Miller (Wayne State University) discuss general challenges of doing organizational ethnography, including, gaining access "through the side door" by working with disciplines outside of the social sciences, framing appropriate research questions, how to present findings in a way that corporate sponsors can understand (i.e., "actionable" results), and the challenges associated with "serving two masters" (i.e., addressing the needs of both academic and business stakeholders). Crysta Metcalf (Motorola) and Christina Wasson (University of North Texas) share their experiences collaborating on a design anthropology project in which university students conducted ethnographic research for a corporate client (i.e., Motorola). They discuss how they managed the collaboration, its challenges and benefits. Marietta Baba (Michigan State University) and Melissa Fisher (Georgetown University) discuss navigating their dual roles as academic researchers and anthropological consultants, and the struggles associated with balancing institutional, professional, and personal ethics. They share their personal experiences negotiating institutional expectations in terms of data collection, cultural analysis, forms of representation, and confidentiality.

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Designing for "Success" in the Developing World
Workshop Facilitators: JENNA BURRELL, *London School of Economics*, and TONY SALVADOR, *Intel*

How do the United Nations and other development institutions conceive of the lives and priorities of the poor? Are there other ways of framing the needs of citizens in the so-called developing world? What do we know about the existing patterns of material consumption and appropriation in these nations? There are many organizations working to relate research to practice in this space including industry and academic research groups, development institutions, governments, and NGOs. Ethnographic methods have the potential to unseat, expand upon, and redirect the efforts of those designing products and processes for developing nations. However, as always, there is the challenge of relating ethnographic findings to product design and to matters of policy.

This workshop will start not with the question of development (a term often too ambiguously and broadly defined) but with a more fundamental question. How do citizens of developing nations variously conceive of a life well lived? What do they perceive to be

the barriers to this realization? How do technologies and other products come into play or how might they come into play? Workshop members will draw on their collective experiences in the field to answer these questions. We will use our fieldwork material and De Bono's 6 hats process to critique existing products and projects designed for the developing world. The purpose of this reorientation is to see what implications for development arise from a non-development framing of the issues.

In industry and in academic settings there are opportunities to innovate in ways that are perhaps impossible within the politically charged and often bureaucratic world of development institutions. This workshop explores how people in industry can work 'outside-of-the-development-box' to innovate in the development space at the more essential level of processes and outcomes rather than exclusively at the level of material and technological form and function. As a wrap up exercise, we will brainstorm about how our innovations may be brought to the fore in interactions between industry and development organizations.

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Design Documentaries: Construction and Perspective in Video Ethnography
Workshop Facilitators: BAS RAIJMAKERS, STBY, SUSAN FAULKNER, *Intel Corporation,* WENDY MARCH, *Intel Corporation*

This workshop explores the opportunities that documentary film offers to ethnographic practitioners in design research. We will discuss the issues in both documentary and design ethnography surrounding the construction of situations and stories, and how to bring the perspective of the filmmaker/researcher into a film. Film clips from Robert Flaherty, Jean Rouch, Robert Gardner, Morgan Spurlock and others will illustrate these issues. We will also discuss the best ways of using video in design research. When does video inspire and add meaning, and when is it simply a memory aid? We will view and consider clips from the organizers and workshop participants, and explore how the clips convey a story, how the footage was constructed, and how much the filmmaker's perspective is apparent or important. Discussion of your own material and that of your peers will help you think about your own video practice and how you might change or enhance the way you're using video now. Whether you are a beginner or a seasoned user of video, you will take away new ideas about how to use video in your ethnographic practice, and how to improve the communication of your ethnographic work to multidisciplinary teams and clients.

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Transforming Ethnographic Findings into Business Value

Workshop Facilitators: ALEXANDRA MACK and JEFF PIERCE, *Pitney Bowes*

The purpose of this workshop is to explore the many steps that come with and after the ethnographic fieldwork and analysis in order to have those findings create real business impact. Transforming findings into value requires a mix of knowledge and skills that often don't come as second nature to anthropologists or designers. Our own experience points to the importance of ethnographic researchers being able to:

- Speak multiple languages, including engineering and business in order to translate ethnographic findings into a form that resonates with decision makers
- Partner with lines of business to develop business models that balance ethnographic insights and business interests
- Use qualitative findings to target quantitative data collection
- Assess the value and costs that change will bring to customers
- Accept that what emerges from the other end of the business process will not be the same as what entered it

This workshop is primarily intended for participants who have been struggling with some or all of these issues in their own companies, but should also appeal to consultants who must gain traction as outsiders. It will begin with a short video created at Pitney Bowes to show the interface between ethnography and business, followed by a discussion of participants own experiences. Participants will then break into teams to develop a mini business plan, then discuss the plans and the experience of the different modes of thinking, argumentation, and compromise that were part of the development.

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Transforming Managers' Objections to Ethnographic Work
Workshop Facilitators: BRIGITTE JORDAN and BRINDA DALAL, *Palo Alto Research Center*

In the last few years ethnography has become fashionable in the corporate world. Many managers and corporate decision makers, however, still have only vague notions of what ethnography is and what it might do for them. As a consequence, ethnographic methods are often challenged by managers who confront ethnographers with a set of typical objections that question the validity and effectiveness of ethnographically based findings and recommendations. Most of the time these questions honestly seek information, but sometimes they may be hostile, uninformed, or even deprecatory. What do you do in such situations? How can you turn a conversation of that sort into a productive response, a persuasive encounter? These issues are increasingly lively in corporate operations and industrial research labs, many of which are struggling with methodological questions and the legitimacy of ethnography.

The aim of this workshop is to discuss how these frustrating impasses might be transformed into positive encounters. Our objective is to draw on our collective experience to identify strategies that are effective, arguments that are convincing, and approaches that lead to a shared understanding of what ethnography actually entails and provides.

We expect workshop participants from corporate, not-for-profit and academic settings. These might include practicing ethnographers, designers and project managers who are using (or intending to use) ethnographic methods, as well as students and those in the academe who are teaching business, industrial or corporate anthropology.

<p style="text-align:center">~</p>

Experimental ethno-research praxis for uncovering the user experience in pervasive interactive multimedia systems
Workshop Facilitators: ANXO CEREIJO ROIBAS, *SCMIS, University of Brighton;* DAVID GEERTS, *Centre for Usability Research (CUO) Katholieke Universiteit Leuven, Belgium,* ELIZABETH FURTADO, *MIA, University of Fortaleza, Brazil,* and LICIA CALVI, *Centre for Usability Research (CUO) Katholieke Universiteit Leuven, Belgium*

This workshop aims to provide a framework for novel inter-disciplinary reflections, experimental research & evaluation experiences to shed light on relevant future communications scenarios for mobile and pervasive iTV. Special attention is given to issues such as sociability, creativity & content creation, context awareness, interactivity, connectivity and convergence of platforms.

Participants (no more than 15) will be divided into different areas such as travel, daily peripatetic life and asked to tell within their group a related story (real or fiction) about an experience they'd like to communicate. Thereafter each group will make a scenario script for an appropriate pervasive iTV application that enables the creation and sharing content (their stories) and the understanding of novel interaction models that support social use and active participation by users.

In order to allow all the participants will discuss about the appropriateness of the scenarios presented, the group itself using theatre will enact these scenarios. The thoughts raised will be collected in a final Poster.

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SHIFTING TARGETS: ETHNOGRAPHIC METHODS AS A PART OF PROBLEM CENTRIC NEW PRODUCT DEVELOPMENT

Workshop Facilitators: KATLEEN DETHIER, *Kesyoni*, and RUSS WARD and KEN LAUER, *IMP Global Research Group*

This workshop is a 'hands on', experiential learning forum that allows you to experience, debrief and enrich for your use a standalone portion of the Problem Centric New Product Development process we have developed and field tested for the past eight years. The workshop will highlight approaches that promote collaboration and the transition of knowledge and insights from the researcher's fieldwork to other members of the NPD team. You will have the opportunity to learn how many of the ethnographic tools (i.e., in-situ contextual interviews, observation, video-ethnography, etc.) you already use can become a part of a team-based process that systemically derives consumer cognitive strategy and quantifiable problems as a base for the development of salient new product ideas.

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CRAZY EDDIE AND THE BUSINESS OF SELLING ETHNOGRAPHY

Workshop Facilitator: MARTHA COTTON *Hall & Partners*

For ethnography to grow within the industries of design, product development, and market research, ethnographers need to sell it. We need to talk about it in a way that will make our interlocutors eager to buy it. But, can we Margaret Meads re-make ourselves as Crazy Eddies? Few of us are comfortable in that role. But, while we certainly don't want to encourage craaaazy low prices, we do think that there is much to learn taking a page out of Eddie's playbook.

As ethnographers, many of us are "in transition" from whatever we were before – theorists, academics, or practitioner – towards something we might become: consultants, managers, executives. Whether we are situated within big corporations or servicing them, our transitions require sales training. For many of us, "business development" enables our careers. Whether we like it or not, Crazy Eddie is in the family.

This workshop is brought to you buy two reluctant yet (humbly) successful ethnography business development professionals. It is intended to encourage discussion, debate, and "actionable outcomes." It will provide a forum for dissecting the challenges and myths that ethnographers in industry must overcome in order to successfully develop business.

Objectives

- Understand the challenges of "selling" ethnographic research in various industry contexts
- Explore the myths that proliferate around ethnography, and the exploit the opportunities those myths provide
- Identify "tricks of the trade" in the area of ethnographic business development
- Provide a flexible business development framework for ethnographers in industry

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Designing Collaboration: From Inspiration to Integration
Workshop Facilitators: MICHELE CHANG, *ReD Associates,* and SIMONA MASCHI, *Copenhagen Institute of Interaction Design*

Our aim is to gain an understanding of current models of collaboration between corporations and design schools and to discuss whether or not new models could be considered given the changing landscape of business and design. On the basis of presented case studies of past collaborations between companies and academia, the workshop will try to speculate about new ways of creating, sponsoring, and implementing future design research collaborations. While much emphasis has been placed on the institutional players, we seek submissions which pay special attention to the political economy of the collaborative design process. We will structure discussion around the motivations for collaboration, the expected results of such engagements, and the actual outcomes of working across organizations.

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Deep Impact: Creating Strategies for "Meaning-ness" in Research Deliverables
Workshop Facilitators: NALINI KOTAMRAJU, *Sun Microsystems,* Inc, and BRIAN RINK, *IDEO*

A challenge of ethnographic research is telling "the story" — the story of users and the synthesized story of meaning — vividly and persuasively to corporate stakeholders. The practice provides tools that elevate insight, but it's at the moment of sharing outside our discipline with colleagues or clients when research gains persuasive resonance or falls on deaf ears. If meaning is constructed between a researcher and her audience, how can we be mindful of the most impactful strategies for sharing our research with others?

In this workshop, participants will learn, share, brainstorm and evaluate effective techniques to convey the "meaning-ness" of research deliverables to others. Participants will bring a story of a salient success or fatal failure — their choice!

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Addressing a G-G-Generation of Boomers

Workshop Facilitators: DANIEL FORMOSA and TIM WALLACK, *Smart Design*

Baby Boomers, now just entering their 60s, continue to be strong in number, attitude, political influence, social influence and spending power. Unified in unprecedented ways, Boomers continue to be unlike any previous generation. What was the effect of 77 million radical-minded kids growing up together, and how will it influence design in the near future?

To envision the future, it helps to explore the past. In designing products and services for Baby Boomers, we are usually faced with understanding their attitudes now. It is equally important to understand "why." In line the EPIC 2006 theme of "Transitions," we are tracking Baby Boomers' influences – their influence on culture, and the influence of culture on them – popular, social, political and environmental issues stemming from the post-war 1950s through the 1970s, their formative years. We believe, for instance, there is a connection between the Lone Ranger and Tonto, the Civil Rights movement of the 1960's, the Concert for Bangladesh, and a $100 laptop computer.

In a similar manner, Baby Boomers' lifelong stance in questioning authority and demanding equal rights for all will eventually be reflected in their resistance to give up driving. As Baby Boomer's age, it is difficult to imagine them willingly relinquishing their right to operate an automobile – which would also compromise their independent lifestyle. As designers, we realize that the field of design is no longer about understanding products – it is about understanding people. This next generation of older consumers will challenge companies, and private and governmental organizations, to respond. And from all indications, this generation will continue to promise to be unlike anything we have ever seen before.

AK47 Shoots Down PC: ROI for the ROW

KEN ANDERSON
Intel Research, Intel

ROGERIO DE PAULA and MOHAMMED H. MOHAMMED
Emerging Markets Platform Group, Intel

The poster attempts to visualize how a person C-class or below in an emerging market might look at their return on investment (ROI) for a series of items. The fundamental shift in the ROI formula is taking an "emic" approach to understanding ROI. By taking an emic approach to the ROI model we root it in social, as well as, economic theory. We introduce notions of "social capital" and "cultural capital" from Pierre Bourdieu (1972 and 1973) and the "experience" to the already established of fiscal capital formula in calculating ROI. The formula can be expressed as SC+CC+XC+FC/FC. Our formulation of ROI is not based soley on "what people say they will do" but also on what people are doing, especially since there is so much moral valuation on the choices people make. Our particular example highlighted in the diagram is based upon observation and conversations in Salvador da Bahia, Brazil. We've found further success with this model in this formulations of ROI in Africa. We use ROW as tongue-in-cheek; ROW here refers to any entity that is not a corporation. While innovating is important, it is equally or more important to understand the forces of adoption in all markets. Our socially-informed-theoretically approach leads toward corporate success in having products and services adopted.

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The Digital and the Divine: Snapshots of Technology in Spiritual Passages

GENEVIEVE BELL, PhD
Director, User Experience, Digital Home Group, Intel Corporation

BROOKE FOUCAULT, TODD HARPLE, PhD and JAY MELICAN, PhD
Domestic Designs & Technologies Research, Intel Corporation

As businesses struggle to compete in a global marketplace, they increasingly turn to an understanding of consumer culture and values to inform and give direction to product design. Yet, one corner in the system of human values remains conspicuously under-explored: religion and spirituality. Here, we present a selection of snapshots of technology involved in spiritual passages from a variety of different religious traditions as they are practiced in different countries around the world. Each of the snapshots illustrates the marking of a significant life-stage transition, a passage across a boundary line – deeply inscribed by religious tradition – from one territory of spiritual experience to the next. These examples were gathered over the course of a six-month, twelve-country, exploratory research project conducted for a high-tech corporation. They demonstrate how technology and technological devices may play important roles where religious beliefs and values are put into practice.

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Getting over the hump of ethnography "lite": Ethnographic techniques versus ethnography.

MELINDA REA-HOLLOWAY, RANDALL TEAL, GAVIN JOHNSTON and
STEVE HAGELMAN
Ethnographic Research, Inc.

This poster differentiates ethnography from "ethnographic techniques." It makes the argument that much market research called "ethnography" is in fact something different, less vigorous. The crux of the argument is that many of these projects and practitioners of "ethnographic techniques" are missing some of the fundamentals of ethnographic research including induction, holism, and reliance on social and cultural theory. These not so small oversights are harmful to the industry.

Overview

"Ethnography" is the buzz in marketing, advertising, and design research these days, but what is frequently being sold and practiced is not ethnography, but rather research employing some ethnographic techniques. While ethnographic research is a remarkably powerful tool for marketing and design if done right, a challenge has been how to distinguish observational techniques, which lack the depth and theoretical rigor from the real thing. Getting the most out of ethnography requires understanding the difference between the discipline and the various components from its tool kit. It also requires knowing when ethnography is the appropriate methodology and when a company's research questions would be better suited to a different approach.

The poster presentation we plan to display addresses the idea that observation and interviews do not constitute ethnography, but rather methodological components of a way of understanding.

The poster presentation will use visual representations and limited text in defining culture as the central focus of ethnography, and that understanding culture requires moving beyond surface level observations and seeking patterns of meaning, social constructions of reality, and "folk" understandings of culture in practice.

It will also convey that theoretical grounding is another key element in producing genuinely ethnographic work. Ethnography is a holistic approach grounded in solid social theory and it uses these theoretical models in understanding data.

Finally, systematic processes and analytical rigor will be brought forward as central to doing solid ethnography—it is more than the collective opinions of the researchers and requires a system of uncovering deeper, richer findings. We will show the process as we undertake it, from the planning stages through the final reporting of information.

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Understanding information-seeking behaviors and informal social networks in Kyrgyzstan: A design ethnography

EMMA ROSE, BETH KOLKO, and CAROLYN WEI
Department of Technical Communication, University of Washington

The former Soviet republic of Kyrgyzstan presents a unique opportunity to evaluate the requirements of culturally appropriate information and communication technology (ICT) development. In Kyrgyzstan traditional institutions like government or

media are often viewed as untrustworthy. Social networks that include family, neighbors, and friends are the primary source for information and support in time of need. The most pervasive ICT in Kyrgyzstan, similarly to much of the developing world, is mobile phones. This exploratory research in the form of design ethnography intends to generate design guidelines or prototypes for Mobile Social Software that can be deployed in Kyrgyzstan and other emerging markets. As a design space, Mobile Social Software seems uniquely suited for the developing world both in terms of deployable technology and the prevalence and importance of informal social networks. This poster presents preliminary findings, which include the prevalence of unoffical information markets and everyday challenges regarding transportation.

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From Fear to Faith: Spiritualizing Entrepreneurship by Design

MARLO R. JENKINS
Wayne State University, Department of Anthropology

This poster documents the evolving design of From Fear to Faith: 10 Steps on the Spiritual Path of the Entrepreneur, a personal growth seminar. Spirituality here is defined as "the integrating power, the merging faculty, which pulls together all parts of our cosmos. (Montilus 1989)." The seminar is designed to connect participants by facilitating – through transformative ritual – commonality of language, symbols, and spiritual interests. The focus of the poster is on how spirituality can become a part of the design process. The theoretical framework used integrates several constructs, including experience design, ritual, communitas and flow. Using this framework, I illustrate how spirituality can be integrated into design praxis.

The work documented forwards the notion of developing transformative (shamanic) rituals as an integral part of the user's experience with the product or service. I list four recommendations based on the implications of a spiritual orientation to design.

Notes

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Research Blogs for Team Ethnography: What Kind of Notes Are These?

KENNETH C. ERICKSON
Pacific Ethnography Company

MARTIN HØYEM
Pacific Ethnography Company/Martin Høyem's Multimafia

We often find ourselves managing more than one researcher in more than one field site. And clients are forever and always wondering what we are up to, and what—if anything—we think we are learning. After fooling around with telephones, email, and reporting templates of various kinds, we decided to try blogging. Martin Høyem built a blog, and our team has now used it on three projects, two in China and one in the U.S.A. We

think team members like it pretty well and clients seem to like it, too. This poster is a visual description of how our blog works. The poster also suggests some epistemological questions—or maybe ontological ones—about blogging in the context of team ethnography that we hope our visitors will explore with us.

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High Perceived Quality of Experience (PqoE) in pervasive interactive multimedia systems through scenario validation enactments

ANXO CEREIJO ROIBAS
SCMIS, University of Brighton, UK

The work presented aims to elucidate how the use of diverse ethnographic techniques intended to know peripatetic users and understand the usage scenarios – as part of a participatory design process – can influence the quality of their experience when interacting with pervasive interactive multimedia systems.

Introduction

Data gathering and evaluation activities that aim to understand the users' point of view and their experiences when using a technology play a key role in the assurance of optimal user experiences. Identifying appropriate requirements to make interactive systems usable is not enough to ensure the relevance and personal satisfaction of the designed system for users. We can define the Quality of Experience (QoE) (Alben, 1996) as the ensemble of emotions, feelings, perceptions, and opinions of people when they interact with a system. Different elements can contribute to make this experience enjoyable, or displeasing and frustrating: the technology, the service, the look & feel of the interface, the context and physical and social environment.

Validation Enactments for Pervasive Interactive Multimedia Systems

Once the scenarios have been constructed[1], three validation sessions have been organized consisting in in-situ theatre performances following the scripts of the scenarios. The plays were performed in public environments by some of the users while the others could comment on what they were watching. The advantage of these in-situ enactments (Newell et al. 2006) is that they provided valuable information about some contextual factors that had not been identified in the research process. Finally, thanks to explorative prototypes – horizontal proof of concept mock-ups -, relevant and plausible applications that have been identified during the research are been assessed – making use of the practice of pretending –

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[1] This phase used ethnographic research such as interviews, focus groups, cultural probes, observation, mapping of users' movements and questionnaires with some representatives of the target group of users as the main research methodology. Observation (video recording in-the-field and video-data analysis) provided useful information about new uses of mobile phones as multimedia communication tools.

in the field. These very early prototypes incite experimentation, are easy to use and adopt, encourage discussion between users and designers and have a very low cost. However, due to their low-Fi appearance they result unconvincing raising criticism by the users. Moreover, they focus excessively on functionality if not tested in the real usage contexts..

Conclusion

In order to address complex issues such as understanding, emotion, security, trust and privacy, the data gathering techniques presented in this poster focused on users rather than on their tasks or objectives with the analyzed interfaces. This research shows how the physical and social contexts have a strong impact in the users' attitudes towards mobile interactive multimedia applications: the context influences in a positive or negative way the users' emotions and feelings towards the interaction process, persuading or discouraging its use (Anderson 2004). For example, during the in-the-field assessment of the proof of concept mock-ups some users found unsafe recording video with their mobile phones in a crowded street, as they were very concerned about thefts.

This field research uncovered a scarce users' appeal in having broadcasting of traditional TV formats on their mobile phones (except some exceptions such as brief life updates of a decisive football match or extraordinary news) (Cereijo et al. 2004). Therefore the concept of mobile and pervasive multimedia systems will likely have more to do with the emerging of mobile communities that are a sort of 'DIY producers' of multimedia content: they will create multimedia content in specific contexts and with precise purposes and share it with others.

The user centered approaches illustrated by this poster are based on ethnomethods (Button, 2000) and user studies of new and emerging behavior and needs (Lee, 1995), focusing on several multi-disciplinary and cross-disciplinary domains of pervasive interactive multimedia systems such as socialibility, context awareness, creativity, interactivity, interoperability and connectivity (one to one and one to many).

Beyond these areas, it is imperative to explore how the new technological paradigms will affect the PqoE in pervasive interactive multimedia systems (Alben, 1996). These paradigms include hybrid artifacts, advanced interaction modalities, new forms of content and novel intelligent environments, immersive environments such as collaborative virtual environments and multi-user environments. In this sense, an examination of the contributions that disciplines such as the interactive arts, space technology, medicine and games could give to this area might offer significant insights. However, to achieve satisfactory PqoE standards in these new territories, new immersive field research instruments need to be explored.

Other areas also deserve attention in future pervasive multimedia systems are: the psychological and sociological impacts of multiple viewer scenarios; the implications of issues such as personalization; gender issues; social inclusion and concerns about privacy and

security; technological innovation; and socio-economic issues related to the management and production of interactive services and convergent media. In addition, special attention must be given to aspects related to copyright, industrial property and other legal, editorial and production issues. To conclude, other critical areas of study are related to technological innovation implications for users and require an understanding of: users (early to late) adoption of new technologies; economic technological changes and relationship with the market; sustainability of business models related to the new systems; and how to economically sustain the proposed systems.

The physical and social context (Lull, 1980) might have a strong impact in the PqoE of the analyzed interfaces: it influences in a positive or negative way the users' emotions and feelings towards the interaction process, persuading or discouraging its use.

Users will be able to create their own multimedia contents and share them with other users. Therefore new communities will find themselves in new communication contexts and in new expressive situations: they will be able to create their own 'movies' and share them with other users, places (real and virtual environments) and objects (intelligent objects and other digital-physical hybrids). This expression of users' creativity needs to be corroborated by interfaces that support some form of social interaction (Preece et al. 2003). Open, diffuse and pervasive interactive multimedia systems can provide an exceptional virtual platform that might foster and enhance the development of new communities of creative users that can share moods, content and collaborate with different purposes such as work, entertainment or government.

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The Co-evolution of Technology and Work Roles: How CT scanners have shaped the departments that use them

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Siemens Corporate Research, Princeton, NJ

JEFF MOSENKIS
Siemens Corporate Research, Princeton, NJ, & University of Chicago

When CT scanners were being first introduced to hospitals, Barley (1986) found the new technology upset the social structure and coping with it occasioned major change in the social systems surrounding the new technology. Today, CT scanners have become infinitely more powerful, and the related software has amazing capabilities but it is incredibly complex.

We investigated how the social systems of medical imaging have adapted to the latest advancements, and particularly the shifting boundaries between the physician and technologists who operate the scanners. We found large organizations adapting to outside pressures and internal social forces through the development of a hybrid "super tech" role – technologists who are increasingly adopting the structural roles that were formerly the exclusive territory of the physician.   *We also identified factors that impact who does which task at individual imaging centers.*

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Working on the Move: Flexible Work and the Role of Mobile and Wireless Technology
LAURA FORLANO
Columbia University

Wireless hotspots at parks, cafes, airport lounges, trains and other public spaces – referred to as 'third spaces' – represent new venues for the study of organizational communication and organizational behavior. This is because mobile phones, personal digital assistants, Blackberry's and laptops are facilitating mobile work practices, which are not yet well understood. Third spaces, such as Starbucks, are serving as mobile work places where meetings can be conducted, mobile phone calls can be taken, e-mail can be answered and the Internet and other applications can be used. Yet, mobile phone advertisements exhibit a rhetoric of working and being connected 'anytime, anywhere' that disregards the extent to which mobile work practices are situated in particular times and particular places. This poster draws on three months of ethnographic fieldwork in cafes, parks, airport lounges and other public spaces in order to begin to map the different strategies that are being used to work 'on the move'.

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Disconnected: Life Without the Internet: Exploring the Penetration of Internet in Every Life
DEVESH DESAI and ADISON SUPAWATANAKUL
Conifer Research, Chicago IL

In 2004, Yahoo! Set out to measure the significance of Internet for the common consumer for day-to-day living. At the time, the 'consumer' version of the Internet was only about ten years old, yet its acceptance, uptake and use was profound. Conifer Research worked with Yahoo! To gauge how people were using it.

Field research took shape as an experiment where 13 household were denied access to the Internet for a period of two weeks. This consisted of a twin interview approach with the test period in the middle. The first interview established their current usage patterns. The end of this interview marked the beginning of the test period: 14 days when the participants could not use the Internet for ANY personnel use. The test period was followed by another visit to the participants' home to learn about their experiences.

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Kim Quan

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Michael Raasch
Rich Radka
Bas Raijmakers
Brinton Ramsey
Nimmi Rangaswamy
Melinda Rea-Holloway
Bridget Regan
Lisa Reichenbach
Alizha Rice
Noah Richardson
Christine Riley
Brian Rink
Simon Roberts
Lisa Robinson
Rick Robinson
Peter Roessler
Valerie Romley

Tyler Rooker
Alie Rose
Emma Rose
Sean Ryan

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Patricia Sachs
Tony Salvador
Ruth Sando
Diane Schiano
Natasha Schleich
Chris Schmechel
Dara Schoenwald
Heinrich Schwarz
Sabrina Scott
Carey Sebastiany
Altay Sendil
Marsha Shenk
John Sherry
Lillian Shieh
Donna Shrimpton
David Siegel
George Simons
Jacob Simons
Dionne Smith
John Smith
Scott Smith
Samantha Soma

Brent Soo Hoo
Werner Sperschneider
Nelle Steele
Karen Stockert
Edward Stojakovic
Perri Strawn
David Stubbs
Barbara Stucki

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Hanan Tadros
John Tang
Randall Teal
Kathleen Terry-Sharp
Suzanne Thomas
Brenda Thorpe
Inga Treitler
Robert Trotter
Elizabeth Tunstall

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Manka Varghese
Arvind Venkataramani
Lene Vibjerg
Stephen Viller
Nancy Vuckovic
Linda Wagner

Roxana Wales
Patricia Wall
Tim Wallack
Andrew Walsh
James Walz
Karen Ward
Russell Ward
Todd Warfel
Christina Wasson
Roy Watters
John Wendel
Nancy White
Pamela Whitney
Helga Wild
Susan Wilhite
Todd Wilkens
Alexander Wilkie
Susann Wilkinson
Olivia Williamson

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John Young

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Alexandra Zafiroglu
Laura Zaragoza