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Friction into Traction

A Case Study of Frictions in Strategic Ethnography

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This case study highlights the transformative power of strategic ethnography in shaping frameworks that gain traction within organizations, facilitated by three frictions: research friction, analysis friction, and path-to-action friction. By embracing frictions as productive movements, we not only witnessed the profound impact of ethnographic research on the future of a product category but also experienced the convergence of previously competing divisions, fostering innovation, collaboration, and organizational growth. Through an analysis of these frictions, we distill lessons for applied ethnography and highlight the importance of embracing rather than avoiding frictions in today's business settings.

INTRODUCTION

In an era when digital interconnectivity strives to eradicate friction in favor of seamless experiences, the relevance of friction might seem paradoxical. However, Anna Tsing's *Friction: An Ethnography of Global Connection* (2005) offers an alternative perspective. Tsing argues that friction, far from being an aberration, is an indispensable force for comprehending the complexities woven into our social worlds. This case study is about an ethnographic project that defined a 'North Star' (or guiding vision) and strategy for a product group. Rather than focusing on the strengths of ethnography in this context, we center on friction's role in the project's success. We discovered that embracing friction was pivotal to the impact of ethnographic work, and we demonstrate the value and influence of friction on project outcomes.

Tsing (2005) sees friction as the profound interplay of untamed entanglements, unexpected encounters, and disruptions that emerge when diverse entities collide and interact within complex systems. This involves the conflicts, paradoxes, and complications arising from encounters between disparate actors, cultures, and practices. Using the metaphor of a wheel on the road or sticks rubbed together to create fire, Tsing highlights friction's constructive force (Tsing 2006:5-6). Our case study is set on this philosophical foundation exploring friction's transformative role in strategic ethnography projects. We illuminate how, within the context of strategic ethnography, friction enhances our understanding of interactions among client groups, interlocutors, consultants, and stakeholders [1] and supports the development of product strategies that have impact and traction within a company.

This case study supports a reimagining of friction—those intricate knots that challenge conventional pathways but hold the potential to lead us to uncharted territories of creativity and impact. Just as Paul Dourish's "embodied interaction"

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(2004) delves into technology's resonance with human practices rather than its mere existence, friction too can be seen as an *active agent* of transformation. This case study encourages readers to see the potential of these tensions, and outlines three distinct types of friction: research, analysis, and path-to-action friction.

We look back on our project with an emphasis on the pivotal role each of the frictions played in magnifying the transformative power of ethnography to shape strategy. The research friction revolved around varied and misaligned interpretations of the role and value of ethnography and prompted discussions about incremental improvement versus transformative evolution of a product category through research. Embracing this friction fostered collaboration, new alliances, and research outputs that were ultimately more valued. The analysis friction emerged when the insights initially portrayed one product within the company's portfolio as more favorable than another product, problematizing the company's worldview. Instead of sidestepping this tension, we harnessed it for innovative thought. Collective discussions led to reimagining both products in the portfolio and their connections in people's lives. The path-to-action friction appeared when disseminating research findings and implications, as the actionable directives differed from traditional frameworks and stakeholders' existing agendas. We worked to translate insights into actionable steps for each faction that were distinct yet complementary, strengthening relationships along the way. The process underscored friction's potential to deliver impact in ways that are both adaptable and long-lasting.

This case study further dissects each friction, revealing the associated challenges, methodologies, and successful transformation or traction that arose. Through this retrospective, frictions evolve from obstacles to anticipated phenomena, to be actively sought out and engaged with in subsequent ethnographic pursuits. This exploration augments the growing body of knowledge regarding ethnography's practical relevance in the corporate domain. Fundamentally, we argue that in strategic ethnography, frictions help insights and recommendations gain traction, shaping organizational trajectories anew.

The backdrop of this exploration is ChipCo, a company navigating a strategic shift in desktop computer manufacturing processes. This change prompted a new North Star (also known as a guiding vision) for the desktop division.

CASE STUDY: STATIONARY COMPUTING

Context and Background

Established in the 1960s, ChipCo stands as a vanguard semiconductor chip manufacturer, known for its relentless commitment to innovation and technological advancement. Its strategic focus on Moore's Law has consistently propelled it to the forefront of silicon technology, catalyzing revolutions in computing power and fueling the evolution of an array of devices, from personal computers to AI systems.

Nonetheless, ChipCo finds itself navigating a rapidly evolving technological ecosystem. To retain its competitive edge, ChipCo made a strategic pivot, consolidating its desktop product manufacturing with the client computing architecture (focused on end-users of devices) rather than with the server architecture. This strategic decision stemmed from observing waning consumer interest in desktops, the growing encroachment of competitors into higher-end markets (particularly among gamers and specialized professionals in fields like science and creativity), and the status of laptops as indispensable tools for professionals on the move thanks to advancements in technology, enhanced portability, and evolving consumer preferences.

Sensing the urgent need for reinvention in a changing landscape, ChipCo's internal ethnographic research team sought a path forward, and enlisted the expertise of ReD Associates—an external organization that applies the social sciences and humanities to strategic business questions. The aim of the project was to define a new North Star for ChipCo's Desktop Group that would provide direction for the division and stimulate innovation. The case is an example of the interplay across consultancy, various internal teams, corporate actions and values, and the broader societal context.

Research and Analysis

We sought to define what the future vision of the desktop could be, by studying a human phenomenon that was agnostic of a specific product category and instead was a 'verb'—an experience that the ethnographer could observe and participate in —namely, *computing in place*. This meant that both the act of 'computing' with and within a machine, and the physical environment in which the computing was taking place, were critical elements of participant-observation.

To move past understandings of the product category today, we designed the fieldwork so that we were exploring with each of our participants a set of tangential forces of change that could potentially redefine the role of the desktop—forces that indirectly intersected with the phenomenon of computing in place. This included sustainability, the rise of hybrid work, the proliferation of personal technological devices, the changing designation of space in the home due to the COVID-19 pandemic, among other forces. This list of forces came from an initial framing phase in which we conducted desk research, interviewed experts on technology and changing work and family life across cultures, and synthesized prior knowledge from previous projects with related themes.

Informed by this framing, we spent time with 16 individuals from China and the United States with an equal gender distribution. Our aim was to understand the nuances and intricacies of their life views and practices with computers. We met with people who use their computing devices in contexts where both high workload computing and a designated place for computing matter to them. We recruited diversely across professional and recreational *computing in place*, and shared and

personal use of the machine, to understand the similarities and differences across a range of potential purchasers and users. Within this diverse group, twelve participants identified as primarily desktop users, while four were secondarily desktop users. Participants were provided with detailed information about the research and gave their informed consent to participate. Steps were taken to ensure the confidentiality and anonymity of the participants during data analysis and reporting, including not using any photographs of participants' faces.

We conducted a mix of in-person in-context sessions and remote sessions with screensharing to observe computing practices. To ensure a comprehensive understanding of participants lifeways, perceptions, and practices of desktop usage, we spent several hours observing and conversing with each participant in their computing spaces, spanning various scenarios of work and recreation. We engaged in tours of their physical and digital environments to gain contextual insights and conducted detailed walkthroughs of their computing use-cases and workflows. We encouraged participants to share their material culture through show-and-tell sessions, which provided invaluable context to their desktop setups and usage patterns. To capture the essence of their computing experiences, participants were requested to maintain photo diaries and computing diaries, chronicling their daily interactions with desktop computers. These diaries, along with our observations, allowed us to immerse ourselves in their lives.

We went beyond the workflows and tasks people were doing with their machines, contextualizing these actions with broader aspects of their lives—their values, hopes, struggles, across various domains of life in which a computer, fixed in place, might intersect. We studied the social ecology around computing in place—the individual 'owner' of the machine (if there was one owner, sometimes there was not), the collectives of people who decided on and used the machine (e.g. family members, co-workers), the other devices and objects that were connected to the machine, the activities and interactions that took place around it, and the broader societal discourses that shaped decision-making about computing.

Researchers collected visual and written data (i.e., fieldnotes, photographs, video, transcripts) from observation, tours, walkthroughs, material culture show-and-tell, photo diaries, computing diaries, and expert interviews. We conducted analysis using both top-down and bottom-up approaches. Top-down meant we were answering questions that came from stakeholder priorities surfaced in framing phase, and bottom-up meant we were observing the patterns and insights across the participants' lifeways, and compute-in-place behaviors and perceptions. We paid special attention to discrepancies between what participants said versus what they did, and what they did across different situations.

One of our key analytical approaches was to identify gaps and asymmetries across our various inputs of data, including an as-is synthesis of assumptions, hypotheses, and unknowns from ChipCo's side, expert perspectives from academia and industry, and the fieldwork itself. Drawing from ChipCo's previous research,

including 12 prior projects, we built upon existing knowledge, to avoid duplication and ensure the study's novelty. By adopting this approach, we were able to gain insights into the meanings and practices people have around desktop computers and how these devices have or have not become integral to the lives of individuals in China and the United States.

Findings

In our fieldwork, we observed the tensions that people encountered in their day-to-day life, and the compromises that they needed to make. Christine, an architect we met in Shanghai, found herself disillusioned with her profession after years of training, but she couldn't quit her job because of her financial responsibilities. Jonah, an employee at a human resources company in New York, now found himself working from home which he shared with his in-laws. Nadia, a start-up founder in the Bay Area, was struggling to juggle personal ambitions with the demands of her family. In this context, being able to compute in adaptable and flexible ways was a necessity. Christine needed to take her computer home with her, to meet her deadlines. Jonah needed to compute from his kitchen table, because his son and his in-laws occupied the quieter spaces of the house. Nadia needed to prop her computer up on an empty plate at a café nearby to focus, because her husband and kids didn't take her start-up dreams seriously at home.

Alongside the need for adaptable computing, we observed people also *desired* to do their computing in ways that were dedicated and intentional, and the place in which this computing happened was crucial to its intentionality. Jonah, for example, tired of getting relegated to different spaces in the home to do his work, purchased a high-end computer and accessories and carved out a corner of his son's room in which he could get his work done (though he did have to share it with his son for gaming, when he was off the clock). We observed this across use-cases: personal or shared, work or leisure. Take Zeng in Shanghai, for example. She had recently quit her high-pressure job because she wanted a job that allowed her to dedicate more time to her family. Alongside this change, she purchased a family desktop, gave it a dedicated space in the home, and it became where she, her husband, son, and parents all came together for various activities like watching a basketball game, teaching her son to dance, or ordering supplies for the home. Vince, an independent videographer and music producer in the U.S., purchased a high-end workstation computer to signal to his clients that he "was worth what they pay, they can't do this at home." For both Zeng and Vince, the desktop form-factor became an embodiment of new priorities.

Framework and Direction

Through ethnography, we observed the necessity for adaptability alongside the desire for intentionality, when it came to computing. This set the stage for a framework that put these types of computing, which could each be done with a

variety of form factors, features, and accessories, in relation to one another—not in competition but complementary. We analyzed what people were *trying* to do with their intentional computing set-ups today, distinct from when they *needed* to compute in flexible adaptable ways (e.g. on-the-go), to make the leap into what they might *ideally* be able to do. The North Star vision cut across use-cases and types of users and was a promise of deep commitment to one's purpose, in a chosen space, without compromise, whether it was a personal or shared endeavor, for fun or for productivity. The vision stressed the importance of presence and immersion, of providing an emblem that communicated one's worth, and of being a conduit for helping people to feel their very best. The desktop was the quintessential enabler of this vision.

Under this vision, we outlined five pillars or principles for what the desktop needed to do or provide, to support people with the intentional computing they were desiring alongside the adaptable computing they found themselves needing to do. With these pillars or principles also came a fundamental repositioning of the desktop—just as much in the minds of the Desktop Group as in the minds of future users—from a need-to-have commodity that ties people down to one place, to an aspirational want-to-have that gives them agency over a place.

One of our U.S. research participants, Vati, for example, was a high-powered executive at a bank. She had a range of devices she used throughout her day, including in her tricked-out 'internet of things' style home. She did not *need* a desktop for her work (she didn't need that much computing power for her job). But she *wanted* a desktop, and a dedicated space, to signal to herself and to others what she hoped to achieve in life, to present her best self in meetings, and to immerse herself in her tasks.

Beyond that, it was important for the Desktop Group to shift their thinking of the *desktop* as a singular object, to the *practice* of intentional computing through an ecosystem of devices and accessories working together to create the best possible experience. For one of our U.S. participants, Barbara, who was an aspiring podcaster, that ecosystem of devices and accessories included an external microphone, a ring light, and yoga blocks to prop up her tablet.

Outcomes and Impact

Through this study, we informed the future desktop platform technologies that correspond to people's values and practices around computing in the context of daily life. There were several meaningful areas of impact upon ChipCo which we outline here: strategic business plans, marketing communications, platform engineering, and internal organization.

The ethnographic project resulted in the development of the Desktop Product Group's new vision and strategic framework, which the management team adopted and which we outline in the learnings section below around frictions, how they adapted as well as adopted recommendations. This suggests that the findings from

the ethnographic research were recognized and valued by management, for their decision-making.

The adoption of the new strategic framework led to the development of new business plans for the next five years highlighting the direct influence the ethnographic project had on shaping the long-term goals and direction of the desktop management team. Moreover, the alignment of different teams within the Desktop Product Group around new business plans highlights the effectiveness of ethnographic research in creating a shared understanding and purpose.

Beyond the internal impact, the desktop team used the new framework to shape their external communication strategies when engaging with OEM partners (original equipment manufacturers who make the machines that use ChipCo technology) and participating in industry-related events. This suggests that the insights from the ethnographic project not only transformed internal operations but also influenced the way the corporation presented itself to external stakeholders.

Complementary to the marketing and communications impact, the findings of the ethnographic research inspired the platform engineering teams to develop new use cases and subsequent platform directions. The practical application of the research findings demonstrates relevance and effectiveness in driving innovation and product development at the engineering level.

Finally, although not directly connected to the report but the conversations happening around the report, one of the most interesting, tangential impacts of the ethnographic project was the merging of two previously competing divisions, laptops and desktops, into a unified unit. This organizational restructuring occurred along the lines of the framework developed through strategic ethnography, highlighting the transformative power of the research. As we outline in the sections below, friction in the findings revealed opportunities for synergy and collaboration between divisions.

Overall, the ethnographic project had effects on multiple levels within the corporation. These outcomes demonstrate the value of ethnographic research as a powerful tool for understanding complex dynamics, fostering innovation, and driving change within large organizations. Encountering and working with three frictions during the project ensured that the insights and recommendations gained traction.

THREE FRICTIONS TO TRACTION

In the previous section, we discussed the impacts our research project had on ChipCo. In this section, our focus shifts to three frictions that give the project's findings and outcomes traction: a research friction, an analysis friction, and a path-to-action friction. This section expands on the dualistic nature of each friction: the challenges they posed and the traction they generated. By delving deeper into the frictions, we aim to highlight the rich potential frictions have as drivers of innovation, new thinking, and transformative actions. While we encountered three

types of friction in this project, we suspect there are other kinds of frictions that exist in ethnographic work and see this as the start of a conversation.

Research Friction: Lack of Alignment on the Role and Value of Research

At the outset of the project, there was internal resistance to having an ethnographic research team conduct the project because, as one Desktop Group manager put it, "this is not a UX project; this is about strategy." The various teams within the Desktop Group were familiar with ethnography for user experience (UX) research: one of the consumer teams spent half a year creating new reference designs for the desktop after having done extensive user experience research around design requirements, consumer preferences, and detailed comparisons against competitive products. Other teams within the Desktop Group had conducted UX research about workplace performance with various workloads (from office worker to scientist to creator), as well as gaming workloads. User experience research, which included observation and participation in people's lives, was a standard practice in the group.

The crux of the friction lay in the diverse interpretations of the role and significance of ethnographic research. While one manager strongly advocating for the project had some exposure to ethnographic research and understood the range of potential outcomes and processes (both within and outside the scope of UX questions), most of the other managers and the general manager were less attuned to the differences in the approaches. When they read and heard 'ethnographic research' from the internal team proposing the work, they understood it to mean UX research, while the internal team meant a different process and set of outcomes.

Why This Friction Was Challenging

To the managers across teams in the Desktop Group, ethnography was a dive into user behaviors that culminated in tangible, actionable insights typically revolving around incremental improvements to product features, architectural designs, or marketing strategies. In essence, they were envisioning a detailed user-centric playbook that marketing, engineering, or design teams could immediately deploy.

However, the ambition for this ethnographic endeavor diverged from these expectations. Instead of focusing on the details of current user behavior and product tweaks, the aim was to chart a new strategic direction for the Desktop Group, effectively reframing and redefining the essence of the product category. This wasn't about refining what was already in play, but about reimagining its future. While the general manager of the Desktop Group overall agreed to the project's aims, particularly given the high-stakes situation in which the group needed an outside-in perspective on the product category as a whole, the in-the-moment interactions with various teams within the Group at the outset of the project revealed fundamental misalignments around the research we were embarking on and its outcomes.

Compounding this friction was the debate over the research's subject and the nature of the data collected. Those entrenched in the UX mindset expected granular data dissecting desktop use: metrics highlighting application usage, frequency, processor power, all meticulously segmented for identified market groups. In contrast, the researchers envisioned a broader canvas: our data would hopefully illuminate the lifeways of a diverse set of users, delve into the context of desktop usage (or non-usage), explore perceptions of value, and uncover the practices, both digital and non-digital, that shaped desktop interactions.

This problem could be described as one around stakeholder management [2]. Sam Ladner (2014), in her manual on practicing ethnography, highlights the importance of stakeholder management for the success of an ethnographic consultant's project on products. Joshua Dresner (2016) takes the classic argument that stakeholders need to be engaged in ethnographic inquiry itself for alignment and insight. Dexter Lidow (1999), writing about maximizing product success, emphasizes the importance of "all members having identical understanding of the project's mission and objects" (1999:9). He takes a more-or-less top-down approach to "aligning the ducks (all stakeholders)" for a successful project; in essence, getting compliance. We have found that on projects in which the stakeholders are from across several teams, alignment of this kind is unrealistic to strive for, or to assume. We instead take a pluralistic approach in that we assume that the perspectives of multiple parties are all important and do not have to exist without tensions. In projects in large organizations with big high-stakes ambitions, there is invariably a mix of common and competing interests and understandings. And unlike Dresner's guidance, we had too many stakeholders (approximately 30), and some too important or busy, to be involved in the ethnographic encounters or to internalize, at the outset, how our form of ethnography was different from the ethnography conducted in UX.

How We Worked with This Friction

Like Dresner, we see the researcher as a facilitator in the process of alignment, but we see alignment as lateral rather than top-down, and it is not one and done, but rather never done—it is a dynamic, iterative negotiation by which sufficient understanding or agreement is reached across individuals, groups, and organizations to enable the next action but not necessarily much more than that. The managers in the Desktop Group and the different teams putting together funds and resources for the project continued to have multiple definitions of ethnography and user experience research as the project kicked off. The underlying friction regarding the nature of UX and ethnography, and what they entail, remained unresolved at the outset.

On the part of the team conducting the work, it was clear *to us* at the outset what we were *not* doing as part of the research (granular data for incremental

improvements), and what we hoped the resultant impact of the work would be (a new vision for the product category), but because of the different meanings of ethnographic research, we needed to develop and articulate a more robust research design that would include familiar and useful elements to those who would receive aspects of the final outcomes and who at the outset had a different understanding of the role and value of the research.

We worked with different stakeholders to develop a robust recruiting strategy that had elements they were familiar with—a range of devices, recently purchased machines, representation of specific use cases. This ensured that the mix of participants in the ethnographic encounters would be as relevant to the stakeholders as the participants in the UX studies with which they were more familiar, while we also recruited for diversity across the elements we, as a research team, were interested in (which had more to do with general lifeways and experiences). We devised a hybrid notion of 'data' that involved detailed daily practices, as well as the broader context of everyday life, and provided direction for specific product and platform improvements *as a part of* the strategic action that accompanied the North Star. Our analysis focused much more on broader aspects of the data, but we gained stakeholder buy-in at the outset and during their participation in analysis, by ensuring that our ethnography was also collecting details about each participant that were more granular in nature, and focused on their computing workflows, and that we as researchers could readily answer any questions our stakeholders had about those aspects. Being able to construct a vision that encapsulated both gave credibility to the research while allowing it to focus on the strategic aspects.

While we included aspects that were table stakes or familiar to the different teams when it came to ethnography, we had to ensure that our focus in the analysis, the discussions, and in the deliverables, remained steadily on strategy. Articulating this to ourselves as a research team, and again and again to our stakeholders even as we were able to answer the more granular questions when asked, was a constant practice we needed to adopt. Though we did not change our focus, holding space for different understandings of ethnography at the outset did change our work and some of our outputs. This made the research more time-intensive but made buy-in to the work throughout the project easier.

Resultant Traction

Through continued stakeholder management, the project proceeded and fostered new partnerships both within and between organizations. Conversations with stakeholders that included the articulation and re-articulation of what the research was meant to achieve, sustained enough alignment to keep going. As a research team, being able to provide the detailed, granular examples to bring our big ideas to life (in ways that felt more familiar to the stakeholders, but which took the added step of connecting the granular to the broader context) actually helped the big ideas around

the future vision for the desktop 'stick' in ways that stakeholders could own with relevance for their specific teams.

Reinforcing a shared understanding of the research we were conducting and its relevance *across teams,* not just for one team, also led to more collaboration within the Desktop Group, because they had a shared set of data they could work with. One result after the project report was that a member from one team participated in another team's senior staff meetings, encouraging cross-pollination of insights. In the end, managers across teams within the Desktop Group became advocates for both the project results and for the use of ethnography for strategy. We learned that stakeholders do not need to be (and often will not be) fully aligned at the outset and in perpetuity—they just need to be present and voice their concerns and differences. More value came out of the research because of these misalignments.

Analysis Friction: Having Insights that Don't Fit with the Existing Worldview

During the analysis phase, a second friction emerged. The preliminary findings of the ethnographic research dichotomized desktop and mobile device usage, positioning desktops as the superior solution and relegating mobile devices, including laptops, mobile phones, and tablets, as the 'compromised' choice. This stance was problematic for ChipCo, given their diverse product portfolio, which included not only desktops but also a premium range of laptops and tablets. The initial findings from our research brought to light a sensitive friction: positioning one product as superior over another was not a narrative that sat well with ChipCo's internal dynamics. The laptop and desktop divisions, despite being distinct P&L product groups, already shared a kind of 'friendly competition.' Moreover, the laptop group had, years prior, anchored their product around the core value proposition of 'focus' —a strategy rooted in previous ethnographic research.

Why This Friction Was Challenging

Such findings threatened to create internal discord, especially between the desktop and laptop divisions, and ran the risk of the findings, framework, and vision being rejected by ChipCo. This meant the research team—particularly the subset internal to ChipCo—needed to discuss how elements of these initial findings were resonating with the laptop, desktop, and platform engineering teams, and to surface the aspects with the strongest disagreements or reactions. The research team needed a creative pivot that both stayed true to the ethnographic observations but was also helpful to the dynamics of the organization.

The friction necessitated a reimagining of how to interpret and apply the findings and insights. We needed to familiarize ourselves just as much with the insights and strategies of the broader product portfolio, actively pushing past silos (or separations or disconnections) of knowledge that existed from one team to another, as is often

the case within large corporations. And it requires creativity and a perspective shift to think about a vision that acknowledges and folds in a different product category.

How We Worked with This Friction

When faced with the challenge of analysis friction, our approach centered on three shifts: transcending the present understanding of the product, evaluating it in relation to co-existing product categories, and zeroing in on the overarching experience of computing as it manifested across diverse products and scenarios.

The result was the continuum-based framework described above, which sidestepped the pitfalls of a simplistic binary view of good-versus-bad computing experiences. The more inclusive framework mapped out the continuum from on-the-go to stationary computing, which was the way of conceptualizing products within ChipCo, and from more adaptable to more intentional, which was the way of conceptualizing the forms of computing we encountered in the field. This new model brought in multiple products' unique values and asserted that while products varied, each held a distinct position on the continuum of necessary and desired computing experiences.

Before embedding this new perspective into the Desktop Group's strategic approach, key figures from both the desktop and laptop groups were engaged in informal deliberations regarding the framework. The initial reactions were lukewarm. The framework shed light on a crucial facet that had often been overlooked: the multifaceted device ecosystem users navigated daily. Contrary to the product-centric mindset of each group, which viewed their product as the epicenter of the computing experience, this new paradigm highlighted a more integrated, holistic user journey. But eventually, for the Desktop Group this was a revelation. The research spotlighted how numerous users seamlessly transitioned between their desktop and laptop. Thus, instead of focusing solely on the desktop, attention shifted to understanding how the desktop nestled within a broader constellation of devices, offering a holistic and interconnected computing experience. The resulting North Star for the desktop was more realistic from this new perspective.

Resultant Traction

The friction not only shaped a different direction for the framework but also internally recognized the significance of computing as a range of experiences conducted through an ecosystem of devices, going beyond simplistic laptop vs. desktop comparisons. This newfound clarity was articulated in strategic documents for the Desktop Group. Intriguingly, about nine months after the final report, the laptop and desktop groups merged into a unified client group, aligning with the existing corporate language of a compute continuum, thus finally breaking down the product silos that perhaps had hindered user experience progress and innovation.

We observed that impactful applied ethnographic insights are ones that acknowledge and navigate the worldview of the organization.

Path-to-Action Friction: Implementation Requires Interpretation

It is an adage that ethnography is about 'making the strange familiar and the familiar strange.' Margaret Mead (1928) famously took the practices of adolescents in Samoa, made them familiar, and called for changes in education policies and parenting practices in the West. Horace Miner (1956) took the familiar (to the USA) and made it strange. He described the oral hygiene practices of the Nacirema ("American" spelled backward) in a way that sounded extreme, exaggerated, and out of context. He presented the Nacirema as if they were a little-known cultural group with strange, exotic practices, to highlight how we are all strange to each other.

The problem in applied ethnography for business is that general managers seldom want the familiar rendered strange or the strange familiar—the GM is the expert. Their ideas, strategy, and expertise on the products have led them to the executive positions they hold today, which might only be a stopping point for even higher positions. Besides the GM, there were six managers who felt the same way about their ideas in their own teams within The Desktop Group. These corporate leaders, having built their careers on specific expertise and strategies, are often resistant to or unable to resonate with the new perspective presented by research. Their commitment to a particular worldview can act as a barrier, preventing them from embracing alternative paths to action illuminated by the findings.

Why This Friction Was Challenging

The path-to-action friction emerges as ethnographic research unveils a new 'expert' perspective (often one that clashes with entrenched points of view) that needs to be implemented into another expert's ways of working. This presents a delicate balance for ethnographers seeking to impact business strategy. While our role is to guide, we must refrain from over-prescribing specific actions to managers and stakeholders. It becomes essential to offer space for varied interpretations of the findings and implications, ensuring those in decision-making roles feel agency in their subsequent actions. The ethnographer faces the challenge of maintaining flexibility in the findings to prevent stakeholder resistance to the findings. This means collaborating with stakeholders to shape their insights for diverse contexts and applications within an organization. In some ways, this can feel harrowing—what happens if, in the process of getting an executive to internalize or 'own' the insights, key aspects are misconstrued or misrepresented? In other ways, this is inherent to the interrelated, precarious, unfinishedness of the most traditional of ethnographic endeavors, as João Biehl describes in "Ethnography in the Way of Theory" (2013) when we consider that ethnography is not just what we encountered

'out there' in the field, but also what we encountered when the 'out there' interacted with the 'in here' of the corporation commissioning the work.

How We Worked with This Friction

To work with this friction, we created room for interpretation of the final report. Indeed, no strategic ethnographic 'final report' is final. As we discussed in the preceding sections, the ambition was to position the desktop in support of intentional computing. The final report was presented to the GM of the Desktop Group and VP of the broader Platform Group and then presented at various venues. It was followed by a workshop to help the teams understand what might not have been captured in the report, as well as help people make the report their own and most relevant to their work. A couple of weeks after the workshop, another workshop without the external researchers was held, as that collaborative portion of the project timeline was complete. This later workshop involved twelve key managers and stakeholders including the GM of the Desktop Group who decided that elements of the pillars were too complicated to implement as they stood. There needed to be a further workshop to clarify and align interests. The goal of this workshop was to reinforce the vision, prioritize the pillars, and create actionable goals for each of the groups developed out of the prioritization.

Each of the managers was able to make actionable goals out of the vision but these were not necessarily aligned one-to-one with the pillars; some of the managers completely dropped one or two of the pillars. The Platform Group, while keeping the vision, modified the pillars to match the initiatives they were working on that came closest to what was described in the original pillars (in effect, serving to prioritize their endeavors). By switching the pillars, while keeping the vision, the pillars became relevant language in the Platform Group. Meanwhile, in the user experience team within the Platform Group these pillars were broken down into usages, then feature-tested, and evaluated with traditional UX methods, with technological requirements specified around use cases. A similar process occurred within the Desktop Group, albeit with slightly different emphases on the pillars. Despite these adaptations, the overarching findings and vision remained consistent throughout the company.

Navigating the path-to-action friction thus unfolded in two ways. To resolve the clash between the traditional understanding of the product category and the new understanding, both the internal and external researchers needed to transition from informers to facilitators, creating the conditions (workshops) to allow management and stakeholders to meld and bend some of the pillars of the North Star. Relatedly, there was a need to empower various managerial teams and groups, allowing them to adapt and interpret the framework in ways that were relevant and actionable.

Resultant Traction

The adaptations and solutions developed with stakeholders, as they assumed the mantle of co-creators, were faithful to the overall vision and the spirit of the original pillars, though they weren't exactly the same as the original pillars. In the process, however, these became more contextually accurate, innovative, and tailored to managers and groups' specific business milieu. Moreover, this active involvement in shaping the framework meant that the stakeholders didn't just reference it but owned it. Their vested interest ensured greater accountability to upper management and a genuine commitment to the charted course. This collaborative friction broadened ChipCo's comprehension and implementation of the project's outcomes.

We learned that just as ethnographers interpret data to derive insights and recommendations, so too will our stakeholders interpret our insights and recommendations to fit their teams' mandates and focus areas. Facilitating rather than resisting that process requires the researcher to 'let go' of all aspects of the but ensures that the overall perspective is embedded within the organization.

IMPLICATIONS FOR ETHNOGRAPHIC PRAXIS

In our introduction we focused on how Tsing (2005) provided valuable guidance for re-thinking frictions, not as obstacles to be overcome but opportunities for traction. We believe reflecting on the three frictions in our work highlights some key values for frictions in strategic ethnography, and for our corporate clients.

Frictions can highlight the richness of diversity in perspectives, goals, and experiences in a given context. Just as Tsing's (2005) exploration of global connections reveals the complexity of cultural encounters, frictions in our corporate settings underscore the diverse viewpoints that shape decision-making processes. For ethnographers, recognizing and engaging with frictions can provide a deeper understanding of the complexities at play, enriching our insights and recommendations.

A NOTE ABOUT AGILE COMPANIES, FRICTION, AND STRATEGIC ETHNOGRAPHY

In today's dynamic business landscape, corporations must undergo a transformative shift from their conventional mechanistic structures to embrace agility (Aghina et al. 2018). McKinsey's vision of this transition contrasts the static, rule-bound "mechanical corporation" with the fluid, adaptable "agile corporation." In this progressive model, businesses are steered by a North Star—a guiding vision or principle that, unlike the strict action blueprints of mechanical corporations, allows employees the flexibility to interpret and innovate for the greater success of the company, moving in the general direction of the North Star.

Central to this agile evolution is the strategic embrace of friction. Traditionally seen as an obstacle in corporate circles, our work has shed light on friction as a potential goldmine for innovation. Disruptions arising from frictions surface the latent assumptions, orthodoxies, and norms within a corporation, as well as the richness of diverse perspectives across teams. This reframing of friction into an asset encourages a culture where employees defy the norms, leading to innovations that can overshadow competitors and shake up the status quo. It's here that ethnography proves invaluable; ethnography excels in uncovering these underlying frictions, illuminating the paradoxes within, and guiding agile corporations to harness these frictions productively—alongside deep customer insights, and an understanding of intricate market dynamics and societal trends.

In our corporate context, friction challenged existing norms, prompting stakeholders to reevaluate assumptions and explore new solutions. Encounters with research friction shifted our lens from mere desktop pain points to a comprehensive understanding of the holistic human computing experience, while still being able to answer detailed questions through the data collected. Analysis friction further exemplified agile tenets, as it drove ChipCo to embrace a North Star and a customer-centric, continuum-based framework, breaking down product barriers and invigorating its agility, which acknowledging existing worldviews (the fuller product portfolio). Path-to-action friction allowed teams to flexibly innovate on and through the North Star.

In sum, for corporations to truly flourish in today's volatile markets, they need to acknowledge and work with frictions. With its knack for unearthing and navigating frictions, ethnographic research stands out as an essential tool to answer strategic questions, empowering businesses to dive deep, challenge conventions, and emerge with renewed agility.

Strategic Ethnography Can Be More Proactive in Working with Friction

When we are in the middle of a strategic ethnography project we do not necessarily like friction or think of friction as a means to traction. But how can we be more proactive about identifying, working with, and possibly even seeking out frictions? How do we shift from a mentality of avoiding friction to letting it surface?

Recognizing When Friction Occurs in Ethnographic Projects

The ability to identify friction is a nuanced skill that requires a blend of keen observation, thoughtful reflection, and rigorous analysis. Here we provide some indicators we encountered, that can help pinpoint when frictions arise.

Unexpected resistance: When resistance is encountered that seems to come out of nowhere, it's often a sign that friction is at play. This resistance can manifest in many ways, from a participant's hesitancy to share certain information to a stakeholder's outright opposition to a proposed research method. The key is to not

dismiss this resistance as mere obstinacy or non-cooperation. Instead, view it as a valuable clue that there is an underlying issue that needs to be explored. It might be a cultural difference, a clash of values, or a fear of change that's causing resistance.

Emotional responses: Emotions can serve as a powerful indicator of friction. If interactions during the research process seem charged with heightened emotions like frustration, confusion, or defensiveness, it's a sign that there is more beneath the surface. These emotional responses often indicate that the research is touching on issues that are deeply important to participants or stakeholders, and this emotional charge provides an opportunity for deeper exploration.

Breakdown in communication: When communication starts to break down—when misunderstandings become frequent, or when there is a lack of clarity in interactions—it's often a sign of underlying friction. This could be due to language barriers, differing communication styles, or even conflicting agendas. Identifying the root cause can help address the friction and facilitate more effective communication.

Recurring themes of concern: If certain issues or themes keep coming up during research—whether in interviews, observations, or feedback sessions—it's a strong indicator that there is friction around those topics. These are not just random occurrences; they are patterns that warrant closer scrutiny. They might indicate systemic issues or deeply ingrained beliefs that are creating tension.

Discrepancies in data: When findings do not align with what was expected, it can indicate friction. This could be because different parties have different ideas about what constitutes valid data. For instance, a corporate stakeholder might prioritize quantitative metrics, while an ethnographer might value qualitative insights. These differing viewpoints can create friction that needs to be reconciled for the research to move forward.

Stakeholder reluctance: When stakeholders are slow to act on findings or recommendations, it's often because there are friction points that have not been addressed. This reluctance can stem from a variety of sources, such as institutional inertia, skepticism about the research methods, or concerns about the implications of the findings.

By deeply understanding and being attuned to these various indicators, we can not only identify but also effectively navigate through the friction points, transforming them into opportunities for deeper insights and more impactful outcomes.

Embracing Friction as a Helpful Force

First, we suggest a mindset reorientation: ethnographers should view friction as 'research gold.' At its core, friction is an indication of divergence or difference. It is not inherently bad, but it requires attention. In the corporate context, these divergences might arise from contrasting viewpoints, cultural differences, varying goals, or even opposition to change. Recognizing that these divergences exist

provides ethnographers with an opportunity to delve deeper into the underlying causes and to understand the broader context in which our work can have impact.

If the ethnographer needs a mindset reorientation, so do stakeholders and management. As a part of the introduction to the research, we should convey the potential surfacing and value of friction to corporate clients. When stakeholders understand that friction can lead to more profound insights, they are more likely to support the ethnographic process even when challenges arise, and to feel OK when the friction surfaces, because it is not necessarily a surprise at that point. Cases like this one can serve to demonstrate value.

Second, don't rush to resolve ambiguity, but rather embrace it as a team. See it as an opportunity to interact and build a deeper relationship with stakeholders or participants. In analysis and fieldwork, ambiguity (of which there is plenty at the outset) creates spaces where frictions are likely to emerge. It is in these ambiguous spaces that conflicting ideas, assumptions, and interpretations can arise. By not immediately seeking to resolve these ambiguities, but rather exploring and deepening them, the ethnographer can allow frictions to naturally surface rather than bury them to become problems that impede the impact of the project once it is over. These friction points can be invaluable, because they reveal underlying tensions, diverse interpretations, or hidden assumptions that, when addressed, can provide innovative pathways for product or service development, and aligning with a North Star direction. It can also reveal moments to build a new level of trust and understanding with individuals involved in the work.

Third, ensure the field research includes contrastive cases by design. This has become routine practice in much of our work. Ethnographers can deliberately introduce contrasting case studies or counter-narratives to their research. For instance, if researching user experiences with a desktop product, looking at veteran users, new users, and non-users, or those who switched, can provide those contrasting viewpoints and proactively introduce friction. These frictions force teams to reconcile with the unexpected, challenge their assumptions, and open new pathways for understanding. Additionally, by actively seeking stories or cases that do not fit the norm, ethnographers can highlight anomalies that, while friction-inducing, might be key to innovative breakthroughs or might anticipate current or future circumstances in the market.

Working Productively with Friction When It Arises

Frictions do not require modification to ethnographic praxis so much as they suggest a stronger emphasis on some aspects of our work, and a shift of focus from what we do 'out' in the field to also what we do with our corporate clients or stakeholders—the totality of which constitutes strategic ethnography. Here we outline some ways teams can work productively with friction.

Anticipate and recognize the points of friction in an engagement: Our work notes how corporate frictions can push organizations to reevaluate their strategies and adapt to evolving market landscapes. Ethnographers increase their value to clients and managers by leveraging these moments of tension to advocate for people-centered approaches, people-centered values, and thus steering corporate clients toward more adaptive and responsive decision-making to make them successful. Having a shared language as a team for frictions of different kinds, an awareness of how to identify these, and check-ins to assess whether any are emerging, could help anticipate friction proactively.

Understand the stakeholder context just as much as the 'field site': Ethnographers need to consider the work just an ethnography on a target population or group but also on the corporation commissioning the work. Stakeholder interviews will never be sufficient for this. So, the ethnographer needs to possess strong cultural agility and empathy skills to quickly navigate the diverse perspectives and values that contribute to frictions within corporate environments (the same agility and empathy applied to the traditional 'field site'). Being alert to the cultural nuances of different stakeholders and their viewpoints enables ethnographers to empathize with their concerns and motivations. This skill helps build trust and open lines of communication, allowing ethnographers to mediate and facilitate productive conversations around frictions. Relationships with the stakeholders becomes as important as the content itself, if not more so.

Go beyond research, to mediation and conflict resolution: Our case illustrated that frictions often arise when multiple parties encounter misalignments in expectations or interpretations. In Tsing's book (2005) and in our work, friction sparks opportunities for new collaborations and relationships. Ethnographers need to be more than researchers in these contexts. Our role can act as mediators, facilitating dialogues between diverse stakeholders to bridge gaps, resolve misunderstandings, and foster a sense of collective ownership. Through this process, deeper collaborations can emerge, yielding more holistic and effective solutions.

Conflict is not usually something ethnographers are trained to embrace. But ethnographic projects often reveal, if not generate, conflict. Today's ethnographers should be skilled facilitators and conflict resolution experts to effectively manage and leverage frictions for positive outcomes. Frictions can stem from misunderstandings, conflicting goals, or differing interpretations. Ethnographers should possess the ability to guide discussions, manage tensions, and facilitate dialogue that encourages participants to share their perspectives openly. By creating a safe space for stakeholders and participants to express their concerns and aspirations, ethnographers can help unravel the paths forward arising out of frictions.

Provide stories that anchor frameworks and recommendations: Stories stick. Effective storytelling skills are crucial for ethnographers to translate frictions into actionable insights and transformational narratives. Ethnographers must be adept at distilling complex issues and tensions into clear, relatable narratives that

resonate with corporate clients. Stories have the ability to be boundary objects but have multiple meanings, uses, and actions. Stories can capture stakeholders' attention, persevere, and help motivate and guide change. Additionally, stories that have the ability to communicate findings in a way that aligns with each stakeholder group's language and concerns enhance the chances of achieving buy-in and generating momentum for transformation. Ethnographers who excel at strategic storytelling can guide the evolution of frictions from obstacles to catalysts for organizational change.

Be OK with final reports not being final and being interpreted: Final reports in ethnographic research or design studies are often seen as the definitive end of a research effort. However, this view is limiting. Not only are these reports provisional living documents open to interpretation, but they also serve to facilitate ongoing relationships between consultancies and corporate stakeholders. When stakeholders engage in interpreting the findings, they take ownership of the insights. This active engagement makes the insights more actionable and relevant to specific needs, thereby extending the life and utility of the "final" report, even if they do not exactly follow the report. The process of initially creating the report involves collaboration, negotiation, and a shared understanding of its contents, which strengthens the relationship between the two parties. The report then becomes not just a deliverable but a tool for ongoing engagement, allowing both parties to revisit and reinterpret findings as needs and contexts change. Final reports should be considered starting points for discussion and action rather than conclusive ends.

CONCLUSION

For too long, the concept of friction has been viewed through a negative lens, seen as an obstacle to be overcome or a problem to be solved. This case study challenges that perspective by arguing that friction is not a hindrance but a catalyst for innovation, deeper understanding, and meaningful progress. In the context of strategic ethnographic research, friction serves as a mirror reflecting the complexities and nuances that are often overlooked in more streamlined, frictionless approaches. Whether it's unexpected resistance that forces us to question our assumptions, emotional responses that reveal deeper layers of human experience, or stakeholder reluctance that prompts a reevaluation of our methods, each point of friction is an opportunity for growth and learning.

Ethnographic research, with its focus on understanding human behavior in its natural context, is uniquely positioned to not only identify these points of friction but to leverage them for deeper insights. The ethnographer's toolkit—comprising keen observation, thoughtful reflection, and rigorous analysis—is ideally suited for navigating the complexities that friction reveals.

In sum, the lessons drawn from this case study emphasize that frictions in ethnographic research within corporate environments are not obstacles to be

avoided, but rather sources of valuable insights and impact. This case has been about one project and the frictions that have arisen. There needs to be further examinations of the value of frictions in other ethnographic projects. By embracing frictions as opportunities for innovation, collaboration, uncovering hidden dynamics, and driving change, ethnographers can guide their corporate clients toward more informed and effective strategies.

NOTES

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1. The term "stakeholder" has historical baggage. The concept of a "stake" has roots in colonizing forces where land was given away at the expense of first nations (often with an additional aim of eradicating their cultures); literally putting a stake in the ground to claim what was already occupied by others. In that sense, the term "stakeholder" has been criticized as having an expropriating connotation. In this case study we use "stakeholder" as the common industry term, since there currently is no agreed upon alternative. We have relied upon Reed (2022) for much of our thinking on the issue.

2. We note that stakeholder alignment is importantly different than stakeholder management and stakeholder engagement. There is no one dominate point of view on the stakeholders. We refer here to The Stakeholder Alignment Collaborative's (2023) definitions:

- [S]takeholder *management* is typically expressed by one party looking out and seeing stakeholders who may be opposed or present complications that need to be managed . . .

- [S]takeholder *engagement* is typically expressed as the need for one party to engage stakeholders who may be supportive or who would have important inputs to be taken into account. In both cases that focus is on viewing stakeholders from one party's perspective. By contrast, *stakeholder alignment takes the vantage point of the system as a whole,* with alignment being an inclusive process. (*emphasis added*, 2023:20)

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