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Organizational identity work in open innovation entrepreneurship

Par

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Résumé

Cette thèse explore la formation de l'identité organisationnelle depuis le démarrage. D'une manière générale, les études antérieures conçoivent l'identité organisationnelle comme étant formée à travers une série de processus jusqu'à l'atteinte d'un état de stabilité. Or, ces études conçoivent l'identité organisationnelle comme étant également en changement continu. Dans cette thèse, je transcende ce paradoxe en dissolvant les dualités entre processus et entités, les niveaux individuel et organisationnel, ainsi que l'action *(agency)* et la structure. J'analyse des données collectées entre 2008 et 2014 dans le cadre d'une étude de cas ethnographique au sein d'une organisation pair-à-pair fondée en 2011 dans le contexte de l'innovation ouverte. Plus spécifiquement, je mets l'accent sur les conversations quotidiennes réalisées par courriel, lors des réunions, d'évènements sociaux et professionnels, dans les réseaux sociaux ainsi qu'à travers une variété d'échanges formels et informels. Cette thèse développe le concept de travail identitaire organisationnel en s'attardant notamment aux accomplissements fragiles et temporaires réalisés au quotidien sans se préoccuper de la formation d'une identité du point de vue analytique. Mon approche de l'identité organisationnelle *en tant que* processus, plutôt que découlant des processus, me permet de conceptualiser comment l'identité dans les organisations devient prise pour acquise.

Cette thèse par article (composée d'un article conceptuel, d'une ethnographie narrative détaillée et de deux articles empiriques) débute avec une revue de la littérature sur la formation de l'identité et développe la notion de travail identitaire organisationnel basée sur une ontologie processuelle. Après la présentation de la méthodologie, la thèse offre une description ethnographique riche et détaillée du cas étudié. Le premier article

empirique montre comment les individus arrivent à construire un sens de stabilité en déployant quatre modes de travail identitaire en interaction; ils s'engagent ainsi dans un processus continu de réconciliation temporaire de compréhensions divergentes. Cet article argumente que l'influence des individus est façonnée au fur et à mesure qu'ils construisent des frontières symboliques. Le second article empirique démontre comment le travail identitaire organisationnel risque, de façon inattendue, de casser l'organisation. En mettant l'accent sur comment l'ambiguïté générée en interaction peut aider à soutenir l'organisation dans certaines circonstances, cet article argumente que les individus peuvent être davantage influents dans la construction identitaire lorsqu'ils cèdent de l'espace aux définitions qui divergent de leur propre conception de «qui nous sommes » et « que faisons-nous ». La conclusion générale discute les contributions aux débats plus larges, la transférabilité des résultats, les implications pratiques et les avenues de recherche futures.

En somme, cette thèse développe une nouvelle perspective de l'identité en concevant les organisations en tant que processus sans lesquels un sentiment d'identité disparaitrait, plutôt que comme une entité formée à travers une série de processus. Les implications pratiques de ce changement ontologique incluent le passage de la réclamation des identités pour l'organisation à la stimulation, facilitation et préservation de certains types de conversations au sujet de l'organisation entre parties prenantes.

Mots-clés: travail identitaire organisationnel, entrepreneuriat, ambigüité stratégique, perspectives processuelles, étude de cas ethnographique, données d'occurrence naturelle, réseaux pair-à-pair, innovation ouverte, thèse orientée par articles.

Abstract

This thesis explores organizational identity formation from inception. Broadly speaking, previous studies argue that organizational identities are formed through a series of meaning-making processes, reaching a state of stability. Yet, these very studies also consider organizational identity to be in ongoing change. In this thesis, I dissolve dualisms between process and entity, individual and organizational levels, and agency and structure to transcend this paradox. Based on an ethnographic case study in a nascent peer-to-peer organization in open innovation founded in 2011, I analyze naturally-occurring data from 2008 to 2014 with a focus on mundane conversations through emails, meetings, social and professional events, social media, and everyday chat. This thesis develops the concept of organizational identity work-based on fragile and temporary accomplishments in everyday organizing-without an analytical concern for the formation of identity at a higher level of understanding. In this way, by approaching organizational identity *as* processes rather than some*thing* being formed through them, this thesis unpacks how organizational identity comes to be taken for granted.

This article-based thesis (composed of a conceptual article, a detailed ethnographic narrative, and two empirical articles) begins with a review of the previous literature on identity formation from inception and the conceptual development of the notion of organizational identity work, based on a process ontology. After presentation of the methods, the thesis offers a detailed ethnographic thick description of the case study. The first empirical article shows how individuals engage in a virtually endless and provisional patching up of conflicting understandings deploying four interacting modes

of organizational identity work which support an underlying sense of stability. It argues that individuals gain agency to influence understandings by shifting subject positions while constructing symbolic boundaries. The second empirical article demonstrates how organizational identity work risks, unexpectedly, breaking organization apart. With a focus on how ambiguity generated in interaction can help sustain the organization in specific moments, this article argues that people gain agency to influence understandings about the organization by ceding space to definitions that diverge from their own conceptions of "who we are" and "what we do." The overall conclusion discusses the findings, linking them to broader debates, and explains boundary conditions, implications for practice, and suggestions for further research.

In summary, this thesis develops a new perspective on identity by conceiving organizations not as constituted through a set of processes but *as* processes, without which a sense of identity would disappear. For practice, the implication of this ontological shift includes a move from claiming identities to stimulating, facilitating, and sustaining certain types of conversations about the organization among stakeholders.

Keywords: organizational identity work, entrepreneurship; strategic ambiguity; process perspectives, ethnographic case study, naturally-occurring data; peer-to-peer (P2P) network; open innovation; article-based thesis.

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À Émilie,

Acknowledgements

I consider the writing of this thesis as collective accomplishments, not of course denying my own agency in the process. Here I am attempting to balance the role of the individual who is being credited as the author on the first page with the roles others played, either directly or indirectly. Although the prose in Chapter 2 portrays the rather typical rational and hero-centered academic orientation, writing a thesis is also part of one's life. The lines written in this thesis are about interactions-and many of them are not directly related to the research.

Perhaps a drawback of finishing this thesis is the probability that I will encounter Ann Langley less often; I am already missing in advance our stimulating and challenging conversations, to which I kept on looking forward. When I started my research with Ann, I was excited by the opportunity to work with her based on her accomplishments as a scholar and our similar research interests. To some extent, however, that becomes secondary to knowing her as a person. Ann has constantly been present throughout the process, and has provided ongoing support of all kinds, including financial (more on that below). She has been constructive and consistent, with detailed feedback on the many versions of the chapters in this thesis. Intense and demanding, Ann has helped me to find and confront my weaknesses, motivating me to go further. This kind of rigor goes beyond the research for this thesis, and will carry on in future projects. Also, I cannot fail to mention the great deal of academic freedom I had here to pursue (as well as to "unpursue," reorient, rediscover, etc.) my research interests. Hopefully, I will be able to provide similar guidance to my own students in the future.

cars (in theory and practice), as well as about IKEA furniture assembly (as participant observer, emphasis on the observer part of it) along with Maud concerning interesting non-thesis related topics.

If there was anything more unexpected and more life changing in this PhD program, it was meeting Emilie. We still laugh at my phony "pickup line" as if it had been yesterday and we play and work to keep reproducing like moments, together and for a long time - along of course, with Wagner the dog, who takes us for walks. This thesis is dedicated to her.

I am he as you are he as you are me and we are all together.
See how they run like pigs from a gun, see how they fly.
I'm crying.
Sitting on a cornflake, waiting for the van to come.
Corporation tee-shirt, stupid bloody Tuesday.
Man, you been a naughty boy, you let your face grow long.
I am the egg man, they are the egg men.
I am the walrus, coo coo cachou

Identity work in "I am the Walrus," by The Beatles, 1967, credited to Lennon-McCartney

(A customer enters a pet shop.)

Mr. Praline: 'Ello, I wish to register a complaint.

(The owner does not respond.)

Mr. Praline: 'Ello, Miss?

Owner: What do you mean "miss"?

Mr. Praline: *(pause)* I'm sorry, I have a cold. I wish to make a complaint!

Owner: We're closin' for lunch.

Mr. Praline: Never mind that, my lad. I wish to complain about this parrot that I purchased not half an hour ago from this very boutique.

Owner: Oh yes, the, uh, the Norwegian Blue...What's,uh...What's wrong with it?

Mr. Praline: I'll tell you what's wrong with it, my lad. 'E's dead, that's what's wrong with it!

Owner: No, no, 'e's uh,...he's resting.

Mr. Praline: Look, matey, I know a dead parrot when I see one, and I'm looking at one right now.

Owner: No no he's not dead, he's, he's restin'!

[several exchanges later]

Mr Praline: E's not pinin'! 'E's passed on! This parrot is no more! He has ceased to be! 'E's expired and gone to meet 'is maker! 'E's a stiff! Bereft of life, 'e rests in peace! If you hadn't nailed 'im to the perch 'e'd be pushing up the daisies! 'Is metabolic processes are now 'istory! 'E's off the twig! 'E's kicked the bucket, 'e's shuffled off 'is mortal coil, run down the curtain and joined the bleedin' choir invisible!! THIS IS AN EX-PARROT!!

> Identity work in Monty Python's "Dead Parrot Sketch" referred to by Nelson, a participant, in making sense of an event in Chapter 3, as well as by Margaret Thatcher in a speech in 1990.

Introduction

> We are, after all, what we do to change who we are (Galeano, 1991: 111; my translation).

> Living organizations are fluid and mobile. Every attempt to freeze them-in the laboratory or in our descriptions of them-reduces them to one or another form or death. [...] Because of its instability, the [cellular] structure continually eluded him [the researcher] by changing its form, and when he had finally succeeded in fixing it, it was dead (Atlan, 1979 translated by Taylor & Van Every, 2000: 324-325).

The notion of identity is inescapable from our everyday lives. As Gioia et al. (2010: 1) introduce it, quite boldly, "[n]o concept is more essential to understanding the notion of a 'self' in society than the idea of identity." As a popular and versatile frame to investigate diverse phenomena for over 30 years (considering that Albert and Whetten, 1985 is typically credited as the starting point), identity has been "linked to nearly anything" (Alvesson et al., 2008: 5). The notion of identity has provided valuable insights on a variety of topics such as how workers react to threats to their core values (Dutton & Dukerich, 1991), how tacit understandings influence representations of the collective (Oliver & Roos, 2007), and how people make sense of setbacks in their working lives (Vough & Caza, 2016).

More recently, studies have been increasingly interested in organizational identity formation from inception (Gioia et al., 2010; Oliver & Vough, 2012). Simply put, these articulations are oriented towards exploring how shared understandings about "who we are" are formed "in the first place" (Fiol & Romanelli, 2012: 23). For Gioia et al. (2013), while organizational identity studies are entering a "mature stage" (p. 6; their term), understanding of its formation from scratch is the "more recent turn in identity theory and research" (p. 23). Broadly speaking, the studies I focus on in this thesis are concerned with how a new organizational identity is created as individualized and

conflicting understandings from the origins of organization come to be unified around central, distinctive, enduring features of an organization (see Chapter 1 for a review of these literatures).

This thesis project started out to further advance understandings on how a new organizational identity is created, formed and stabilized, from "before identity" (Fiol & Romanelli, 2012; their term) to an identity. In other words, this inquiry started with a focus on exploring how an organizational identity would come into being from a presumed state of non-existence by following the process through which, metaphorically, a series of ingredients would turn into a broth (see Fachin, 2013b). Considering that the previous studies provided broader insights in the formation process, I took a more microscopic approach (Tsoukas & Chia, 2002; Rouleau, 2005) to focus on the nitty-gritty of organizational life and provide a thicker and more detailed understanding of the process.

This study took place in Technica, a peer-to-peer organization, founded in February 2012, in which members are oriented towards producing sensors. This longitudinal research involved close observation of many activities of organizational life (research and development, meeting, smoke breaks, and parties as well as meeting with investors, clients, and partners) in different and diverse online and offline interactions (see Chapters 2 and 3 for more details). Specifically, my focus was on naturally-occurring interactions to find out how these individuals with different priorities and perspectives about the organization would form agreements upon "who we are" and "what we do."

What I found during the fieldwork and analysis is that getting deeper into everyday life leaves one with little choice but to shift ontologically and epistemologically. In a way, the question is no longer in the realm of to be or not to be. Organizational identity can only appear as such when we gain the perspective of the underlying processes-the broth metaphor from above no longer works.

Indeed, during empirical work, while I was able to find a great many consistent claims and shared understandings over time, and even consensus on key issues, I was unable to determine how and when an organizational identity would be formed (and this thesis could potentially surpass my lifetime). To put it differently, I would keep on finding the identity before identity. Understandings at Technica would inevitably change with any organizational activity and shift when I "unfroze" them analytically. Trying to capture and pin down organizational identity was inevitably about segregating a social object from the very social processes of constitution that I was attempting to study (hence, then, the quote from Atlan, 1979 at the top).

As a result, I no longer considered an initial state of "non-identity" or "initially ill-formed core identity" (Gioia et al., 2010; 36; their term) or any state at all. Instead, I took a process perspective (Hernes, 2008; 2014) to approach the phenomenon. From this angle, if an organizational identity is emerging as an entity from another perspective, I will not see it (and, in this thesis, this is not my concern). In this thesis, I join studies like those of Schultz and Hernes (2013) and Tsoukas and Chia (2002) in considering the stability of an identity as a momentary appearance, always temporary, provisional, contested, and slipping away. As a starting point, I explore organizational identity formation from inception without assuming that organizations and identities

can analytically be formed, stabilized, or reach some more tangible kind of form. Rather, they are always forming.

This view allows me to set aside the idea that identity coalesces and forms as such, reaching some kind of end state. Thus the focus of this study shifted from organizational identity as convergence over time to organizational identity work in a nascent organization, through the exploration of everyday places, questions, and events (Weick, 1974; see Chapters 2 and 3). Specifically, considering organizations *as* - rather than constituted by - processes, I shifted the focus from the reifying concept of organizational identity to organizational identity work. This enables the shift from studying how an entity is formed and changed over time in stages of development, cycles, and periods of stability to studying a present that is ongoing, in suspension between past and future (Schultz & Hernes, 2013; Hernes & Schultz, forthcoming) as "experience creates, enacts, and defines the phenomenon under study" (Hernes, 2014: 3).

Broadly speaking, considering Albert and Whetten's (1985) tripartite definition, I conceptualize organizational identity work as discursive accomplishments related to central, distinctive, and enduring features of an organization. While previous studies on identity focus on people's detached understandings in situations of change, turbulence, or crisis, I direct my interest to mundane, situated, and naturally-occurring organizational activity. My overarching research question for this thesis—the one that I present here after dealing and redealing with the messiness of an ethnographic case study through a series of questions—is thus: *How do people construct that which is central, distinctive, and enduring for and about the organization in everyday*

organizing? As we will see, this question is approached differently in Chapters 1, 4, and 5, the three research articles of this thesis.

This thesis is structured as follows. Chapter 1, "Towards a process perspective on organizational identity formation" is in a way an extension of this introduction. It is a conceptual article divided in two parts. The first part includes a literature review of all studies concerned with the formation of new collective or organizational identities, bridging in particular studies on entrepreneurial and organizational identity. I argue that, paradoxically, the limitation of these studies is the very assumption that an identity can be formed. In the second part, I work on a theoretical framework, based on process perspectives. Specifically, I review and develop the concept of organizational identity work and the notion of endurance as the capacity to sustain a particular narrative. This shift from organizational identity to organizational identity work presents a series of assumptions that underpin the argument throughout this thesis.

Chapter 2 presents the research methods that lay the foundation for the subsequent empirical articles (Chapters 4 and 5), and that elaborate on the methodological implications of the ideas developed in Chapter 1 answering the question: "how do we empirically study organizational identity work with a process ontology?" In Chapter 2, I describe how to get close to the phenomenon of organizational identity work by building on an ethnographic case study comprised of the analysis of collective interactive naturally-occurring data. Chapter 2 is complemented by a forthcoming co-authored book chapter on methods for considering organizational identity from a process perspective that appears in the Appendix. In Chapter 2, I also present all the data

collected during my study at Technica, and explain how these data were treated and coded. Chapter 4 and 5 also have their own methods section with their specificities.

Chapter 3 is an ethnographic tale of Technica, from 2008 to 2014. In this standalone chapter, I provide a detailed account of the organization and mobilize a variety of data, both online and offline. While Chapter 4 and 5 also tell empirical stories, Chapter 3 is an empirical story for its own sake. This means that Chapter 3 is able to cover more detail and richness of the story, making the organization come further to life, but without a direct concern for making a theoretical contribution. It serves to provide support and rich background for a comprehensive understanding of Chapters 4 and 5.

Chapter 4, "Organizational identity work in an emerging peer-to-peer network," co-authored with Ann Langley, focuses on discursive *performances* and agency in the ongoing temporary accomplishment of organization. This chapter, in a research article format, highlights how different individuals provide different and often conflicting constructions of the organization, and how they integrate while disintegrating them in specific moments. A cacophony of different types of organizational identity work is described, as well as the work performed to integrate these constructions over time. The article explains how a sense of stability around "who we are" and "what we do" is founded, paradoxically, on everyday confrontations with underlying tensions.

Chapter 5, "Idle hands are the devils' tools: Organizational identity work breaking organization apart" focuses on organizational identity work as collective processes and the *effects* of organizational identity work in interaction. Chapter 5, also in a research article format, highlights how the emerging "results" of interactions enable

organizational identity work to keep on going. The article presents three collective processes through which the crystallization of a sense of "we" is, in practice, in ongoing suspension. This chapter suggests that, ironically, collective sensemaking and organizational identity work risk splitting organization apart (thus hindering organizational identity work). Dissolving dualisms, in Chapter 5 I argue that the absence of collective resolution of ambiguity enables organizing activity to keep going and thus organizational identity work to keep on being performed by individuals.

Chapter 6 provides an overall discussion and conclusion of the thesis. In particular, part of Chapter 6 is a synthetized meta-discussion of the contributions to theory and practice from previous chapters. It presents a different way to think about identity by providing a link to broader debates in process studies and organizational identity theory in particular. I also develop the implications for practice, discuss limitations, and provide suggestions for further research.

How to read this thesis

While this thesis tilts towards the by-article style, I recommend considering each chapter in the context of the whole and to approach it a bit more like a monograph than an edited collection, reading it as much as possible from start to finish. For example, while Chapters 4 and 5 can be read as standalone articles, they are better understood in the light of Chapters 1, 2, and 3 as these earlier chapters provide a set of assumptions and contextual details on specific aspects. (There is a reason why the thesis title is not something like "Three Essays on Organizational Identity Work."). Consider this thesis as

a balance between having a chapter standing on its own and avoiding repetition throughout.

1. Towards a process perspective on organizational identity formation

Abstract

In this conceptual article, I bridge entrepreneurial, collective, organizational, and institutional literatures to explore the processes of organizational identity formation from inception. Through different perspectives or lenses, these literatures focus on a series of processes through which an organizational identity becomes stabilized and field-level legitimacy is established. To contribute to the understanding of this phenomenon, I consider how organizational identity formation might be better understood by adopting a process ontology. Based on this perspective, I view organizational identities as never reaching a state of stability. With this view, organizational identities emerge to the extent that the organizing process enables the conditions for the reproduction of organizational identity work.

Dear Walmart,

Someone insulted me in one of your stores. Your CEO must now resign.[1]

Addressing an organization by "Dear" hardly strikes us as awkward. With a quick search on Google, we can find hundreds of thousands of hits for "Dear Microsoft," "Dear Facebook," and "Dear Google," many of them from people who are not too happy with "their" products and services. Organizations are routinely treated, not only in media, but also in academic discourse, as if they were beings that could actually think, speak, act, and even have feelings, just like humans (Robichaud et al., 2004; Taylor & Van Every, 2011). The process of organizational identity formation from inception, those that enable the creation of a new "Dear" in the future, is the concern of an increasing number of studies.

Indeed, there are growing, relatively dispersed, bodies of literature concerned with the formation of organizational identities from inception. These studies explore how organizational identities are formed and stabilized. In these studies, we can see entrepreneurs' emergent practices interacting with stakeholders as they shift from individual to organizational identity (Oliver & Vough, 2012) and as organizational members build consensus about "who we are" to allow for unified identity claims (Gioia et al., 2010). These studies provide a series of insights concerning the formation and emergence of that which is perceived as central, distinctive, and enduring about an organization, and how this newly existing organization's identity begins to act and gain legitimacy in a field

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[1] http://www.theblaze.com/contributions/dear-walmart-someone-insulted-me-in-one-of-your-stores-your-ceo-must-now-resign/
Accessed February 23, 2016

I argue in this chapter that these studies are limited by the very assumption that an organizational identity becomes fully formed and stable as an entity. While organizational identity appears to be an ongoing construction, these studies also assume, paradoxically, that it can be stabilized. For example, Fiol and Romanelli (2012: 607) talk about emerging and ongoing processes of involvement, storytelling, and identification that seem to cease when "an organizational group with a new identity" comes into being. When this happens, these more fluid, overlapping, contradictory, and active processes that had taken place "before identity" (their term) disappear as they are being replaced by a higher level of understanding.

 I approach organizational identity emergence with a contrasting set of assumptions. I argue for an understanding of organizational identity emergence at the level of practice while rejecting the idea that an organizational identity can be formed and stabilized, as an entity, at the level of analysis. More precisely, rather than assuming that a series of processes culminate in an organizational identity, I argue that organizational identity is constantly emerging to the extent that it is performed through organizational identity work. In other words, organizational identities are ongoing strings of temporary accomplishments that can be stabilized only when they are frozen.

In so doing, I join other researchers who take a process perspective on organizational identity (Schultz & Hernes, 2013; Hernes, 2014) as they treat identity as a process rather than the product of processes. While most previous studies described above adopt a substantive ontology through which identity is viewed as a thing, I build on a process ontology, in which social reality is seen to be composed of processes only (see also Fachin & Langley, forthcoming in the Appendix; Sandberg et al., 2015). Through these

lenses organizational identities are viewed as continually becoming and never achieving stability or a terminal state.

To understand organizational identity as a process, I depart from the notion of "organizational identity" as analytical lenses and mobilize the concept of "organizational identity work" as ongoing discursive performances to form, repair, maintain, strengthen or influence understandings of the central, distinctive, and enduring features of the organization. This view of performing organizational identity work is not analytically concerned with whether an actual organizational identity is being formed, but instead with the processes that underlie what we come to see as an organizational identity emerging as a social reality. The question developed in this article thus becomes *how can organizational identity formation be reconceptualized by adopting a process perspective?*

This chapter is structured as follows. First, I present what previous studies have said about processes that relate to organizational identity formation, through institutional, actor-network, entrepreneurship, market categories, collective, and organizational perspectives and present their limitations. Second, I present the process perspective on organizing and how this can enrich our thinking about organizational identity emergence. Third, I elaborate on the concept of organizational identity work and the entwinement of interpretation and reproduction. Fourth, I discuss the broader implications of this ontological and epistemological shift.

1.1 Organizational identity: How "it" is formed and legitimated

In this section, I review previous studies that deal with the formation of organizational identity from inception. More precisely, this review aims to include conceptual and empirical studies within an organizational context relating to the formation of a new identity at any level of analysis except the individual level.

I bridge studies associated with entrepreneurial, collective, organizational, and institutional literatures, and combine them in two main groups. The first group presented (macro studies) focuses on the field-level processes through which a new organization's identity and legitimacy are constructed. These studies are about the identity *of* organizations. The second approach (micro/-macro) includes both the above-mentioned field-level identity claims (macro) and meaning-making or groundwork processes that take place among people within organizations (micro).[2] While most focus on the micro, these studies deal with identity both *of* and *in* organizations.

1.1.1 Identity formation *of* organizations: towards the creation of field-level legitimacy and a (macro) social actor

Macro studies investigate how a new organization's identity is legitimated when entering a field. Legitimacy and distinctiveness are considered crucial for a new organization to be recognized and to survive. Informed by institutional theory, these studies consider identity as a property of a new organization. This assumption appears through a treatment of the organization as social actor in its own right (Navis & Glynn, 2010) or of someone acting on its behalf, for example the entrepreneur, making identity

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[2] The thesis proposal has a 1-2 paragraph description of each these studies that were published in or before 2013. Chapter 1 presents an overview of each study and works with overall assumptions illustrated by key examples.

claims to construct organizational legitimacy (O'Connor, 2002). Thus, common to these studies is not only the identity *of* a new organization in a field but also that there is a single identity, enacted through institutionalized identity claims that enable the organization to attract legitimacy and resources.

Some studies consider the organization itself, with features determined from the outset, expressing[3] "who we are" to other peer organizations. Take for example Navis and Glynn's (2010) longitudinal study about identity and entrepreneurship in the emergence of new market categories in satellite radio. These authors describe how "*firms* claim identities that are both similar and different" (p. 466; emphasis added). In their study, we see how different organizations, establishing collectively, "what we [organizations] do," enabled the normalization of the category, and, in turn, enable the emergence of these organizations. With data like "*Sirius proclaimed* that satellite radio would 'bring to radio what cable networks have brought to television," Navis & Glynn (2010: 452, emphasis added) present the organization itself as narrating itself, as a social actor expressing its own identity to build legitimacy in a field.

Other studies focus on the stories that the entrepreneur or leader tells to different audiences in order to attract resources to his or her new endeavor. Different from the above-referenced studies, the focus shifts from the organization doing the talking to an actual human being, i.e., they are no longer intertwined. For example, Lounsbury and Glynn (2001) argue that entrepreneurial stories building identity and legitimacy for their endeavors "make the unfamiliar familiar (often through metaphor and analogy) by

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[3] In these studies, the term "expression" is preferred over the term "construction" that we would see more typically in studies with a social constructionist orientation. This suggests the focus: an identity as being there to be expressed rather than being constructed as through human expression.

framing the new venture in terms that are understandable and legitimate (p. 549)"
These authors specify that these entrepreneurial stories, told to different audiences, are about the "construction of a new identity rather than the reconstruction (or reposition of) an established identity (p. 551)." According to Lounsbury and Glynn (2001), through the creation of a new identity for the organization, entrepreneurs are able to create a competitive advantage and build legitimacy, which in turn, enables them to garner capital and resources.

Indeed, a common theme in these studies is the need for balancing similarity and difference with other organizations in the field, a "self-other relationship" (Clegg et al., 2007: 502). Lounsbury and Glynn (2001) refer to this balance as "strategic distinctiveness" and "normative appropriateness." Navis & Glynn (2011: 480) talk about "legitimate distinctiveness" as both "homogeneity" (similar to others) and "heterogeneity" (different from others), or "conformity and deviance, containing identity elements that are contradictory or oppositional." Similarly, for Czarniawska and Wolff (1998), the construction of a new identity in a field is a tension between "one of us" and "one of them." These authors present the case of a young university that had failed to be seen sufficiently as "one of us" in the eyes of peer organizations, thereby restricting its access to capital and resources essential for its survival.

As these studies are about the expression of an identity in a unified organizational voice, inquiries generally focus on how organizations construct their identities (e.g. Clegg et al., 2007) and how an entrepreneur constructs his or her organization's identity (e.g. O'Connor, 2002). Of course, regardless of the perspective, an organization is arguably an abstraction and, as Taylor and Van Every (2011: 2) point out, it cannot actually speak

for an interview or "sit down at the table with us for a meal." In empirical studies, the

organizational voice appears through texts "signed" by the organization or interviews

with organizational leaders who are considered to be bearers of the organization's

identity. We can see a summary of these studies in Table 1.1.

Table 1.1 Macro studies: Legitimating a new organizational identity

Study	Focus[4]	Processes of identity formation and legitimation of a new organization	Methods and empirical setting[5]
Clegg et al., (2007)	How organizations construct their identities in an emerging context	Self and other categories that frame similarities and differences with incumbents in the field	Interviews with the principals of 11 coaching firms in Australia
Wry et al., (2011)	How emerging collective identities become legitimized	A collective identity story that outlines purposes, practices, and meanings allows for expansion while maintaining coherence for external audiences	Conceptual
Navis & Glynn (2010)	How new market categories emerge	Public announcements constructing the identity of the category as well as organizational identities within the categories	Qualitative and quantitative analysis of 16 years of archival data about the emergence of satellite radio in the U.S.
Navis & Glynn (2011)	How an entrepreneurial identity is interpreted, understood and evaluated by others	Narratives about the founder, new organization, and the market about sameness and difference allowing for legitimacy and, in consequence, investors' evaluation about this new organization's plausibility	Conceptual, with some examples of narrative mechanisms from the press and other studies
Czarniawska & Wolff (1998)	How are organizational identities and their success and failures	Organizations constructing themselves as both "one of us" and "one of them" are able to acquire an identity in an established field	Two case studies with two universities entering their fields

[4] These are, in most cases, for Table 1.1 and Table 1.2 their word-for-word research question, with the objective to be as faithful as possible to the authors' formulations

[5] These are, for Table 1.1 and Table 1.2, summarized based on the data and methods that actually appear in the study rather than what is explained in the methods section.

	constructed in institutional fields		
Lounsbury & Glynn (2001)	How entrepreneurial stories facilitate crafting a new venture's identity and legitimacy	Entrepreneurial stories construct a new identity for the organization and enable legitimacy to attract capital	Conceptual, with some illustrative anecdotes of entrepreneurial stories
O'Connor (2002)	What stories enable founders to found and govern a new company	An interplay of different types of stories through which the entrepreneur co-constructs his organization's identity with different audiences	An ethnography in which the author shadowed the entrepreneur's interaction with investors
Martens et al. (2007)	What are the effects of entrepreneurial storytelling on a firm's ability to secure capital	Narratives that express a coherent identity enabling the leveraging of resources	A mixed method (qualitative and quantitative) study in which the authors test how much identity stories can actually attract funding
Patvardhan et al. (2015)	What are the processes through which organizations in an emerging field develop a collective identity	Processes of precipitation, manifestation, and resolution of an identity crisis enable the formation of a field level identity	Grounded theory based on a consortium of 46 iSchools

These studies focus on how organizational identity allows field-level legitimacy to be obtained, providing access to resources that are essential for the organization's survival. Said differently, without field-level legitimacy, the organization cannot obtain resources, and therefore its identity will not survive because the organization that was expressing it will have disappeared. These studies are instrumental in the sense of focusing on projecting an identity that works for obtaining resources and capital. In these studies, organizational members' (potentially divergent) understandings of "who we are" do not appear as a matter of concern.

Indeed, these macro studies do not provide insights into people's groundwork that would have led to these institutionalized claims in the first place or on the potentially

divergent views of organizational members. Gioia et al. (2010: 5) question whether these studies actually deal with organizational identity formation per se, because "the social actor perspective typically presumes a pre-existing identity." These authors argue that while founders and industry categories are indeed important elements of organizational identity formation, *macro* studies rest on the periphery, because they touch "only on some limited aspects of identity construction [and] do not give us adequate insight into important elements of identity of the actual processes by which identity forms" (p. 2). In the next section I review studies that examine such processes.

1.1.2 Identity formation *in, around,* and *of* organizations: a comprehensive model (micro-/macro)[6] – social constructionist and social actor

This set of studies deal with organizational members' and external stakeholders' meaning-making processes (micro) through which the identity of an organization emerges as social actor that can act in its field (macro). Specifically, these studies explore how different people, with potentially contradictory and individualized understandings of "who we are," converge and then how the organization, with a social actor status, gains the capacity to make field-level identity claims. For Gioia et al. (2010: 35), this approach offers a "more comprehensive understanding of the dynamics involved in identity creation" because it considers both "how members of a new organization forged their organizational identity" and how "a social entity mak[es] claims and tak[es] actions within a larger social context." These studies thus combine social actor (macro) and social constructionist (micro) perspectives, linearly or in interrelation.

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[6] The - and / signs indicate two types of study. The "-"denotes studies that are strictly linear, in which the micro precedes the macro (e.g. Fiol & Romanelli, 2012). The "/" denotes studies that consider an interaction between micro and macro (e.g. Gioia et al., 2010)

Fiol and Romanelli's (2012) objective in "Before Identity" is precisely to connect these micro-social emergence processes to the insights provided by the above reviewed *macro* studies. These authors develop a discussion of what they call "before identity" or the "emergence phase" and connect this to the "objectification phase," where field-level identity claims would take place. Fiol and Romanelli (2012) talk about "before-identity processes" (p. 606) which are, for them, "poorly understood" in previous literatures. These authors examine these processes as a sequence of events following this order: involvement, storytelling, and identification, as we can see in Figure 1. Through these processes, then, a "collectively identity" is formed and stabilized.

Figure 1.1.: "Before" and "after" identity

Figure 1   A Model of Form Identity Development
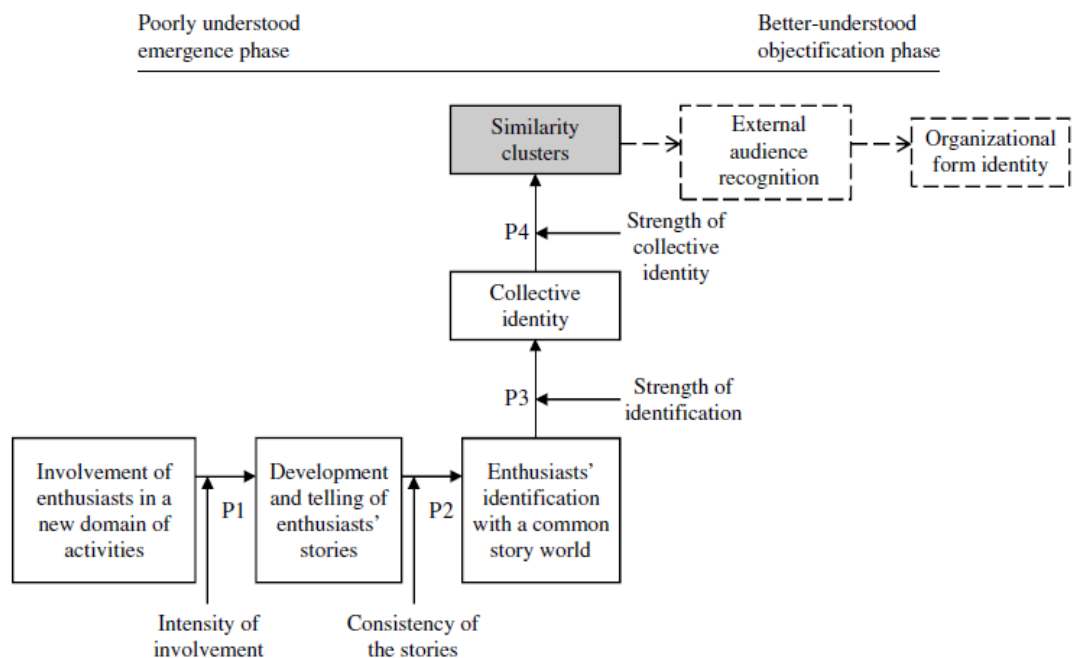
In particular, during this rather pluralistic "before identity" state (the first three boxes in Figure 1), Fiol and Romanelli (2012: 601) argue that shared understandings are formed as constructions shift from "I" to "we."

> Early stories tend to be fragmented and multivoiced (Freeman and Brockmeier 2001) as participants construct meanings that are individually relevant. As participants more actively engage with the stories of others, however, they socially negotiate a set of increasingly common story elements. Moreover, the story references shift from "who am I?" to "who are we?" and "what are these activities in which we are jointly engaged?" (De Fina 2006). Such negotiations lead enthusiasts to weave their various and individual stories into a commonly shared story.

Through time, then, as people's involvement, stories, and identification become stronger and more consistent, Fiol and Romanelli (2012) argue that we "arrive" at a collective identity in a stabilized form (see fourth box in Figure 1). Following Fiol and Romanelli's (2012) model, we are approaching the "objectification phase," which according to the authors is the area of concern of "macro" studies. These authors connect "(1) the *emergence* of shared understandings about the key features of social groupings through social interaction and (2) *objectification* of the features of a social category that exists an assumed reality" (p. 598). The argued contribution of these authors is thus to present what happens "before" what is presented in the macro studies of the previous section.

Indeed, Fiol and Romanelli's (2012: 605) conceptual paper develops an understanding of how these organizational identities form in the first place" in a "progression of individual, collective, and finally to organizational processes." These authors argue their development of this "emergence phase" "form[s] the basis for audience recognition and objectification of a new organizational form." As we have seen in Figure 1.1, they do this by connecting their development of this "emergence phase" (or "before identity") to the "objectification phase" (the dotted boxes and arrows), involving field-level legitimation.

Micro-/macro studies share the assumption that organizational identity formation involves a process that results in the emergence of a stabilized entity. In Figure 1.1 above, for example, we see three steps (or states) before a collective identity is formed. As we can see in Table 1.2, the studies listed assume that for an organizational identity to emerge and develop, it needs to become stabilized or objectified in some shape or form.

Table 1.2 Micro-/Macro: Forming an organizational identity through time

Study	Focus	Processes of identity formation in a new organization	Methods and empirical settings
Fiol & Romanelli (2012)	Microsocial processes that promote the emergence of new organizational forms	A sequence of involvement, storytelling, and identification, eliminating individuality towards the objectification of the identity of an organizational form	Conceptual
Gioia et al. (2010)	How members of a new organization develop shared understandings and how this newly created organization develops a sense of itself as a social actor in its field	Through the interplay of eight processes, four sequential and four recurrent	Grounded theory based on interviews and documents
Drori et al. (2009)	Identity and legitimacy construction from inception to death of the organization	Through a series of phases through which identity attributes are being legitimized externally	Interviews and ethnography during the life cycle of the organization
Kroezen & Huegens (2012)	How organizations develop similar or different identities	Through the creation of a sense of collective identity that creates an "identity reservoir," which enables enactment in the field.	Interviews with an "authoritative insider" in 59 breweries in the Netherlands
Hardy et al. (2005)	What is the relationship between discourse and organizational collaboration	Conversations create a new collective identity, which then facilitates inter-organizational collaboration.	Conceptual

Oliver and Vough (2012)	How organizational identities emerge in small startup companies	Organizational identity develops through emerging practices in the interaction of founders and stakeholders	Grounded theory with interviews with from 9 firms
Downing (2005)	How are organizational identities coproduced by entrepreneurs and stakeholders	Through stories, plots, and narrative structures, organizational identity is coproduced through time by entrepreneurs' and stakeholders' sensemaking and action	Conceptual
Corley and Gioia (2004)	What are the identity changes associated with a spin-off	Organizational identity is formed when a phase of ambiguity is resolved	Grounded theory based on interviews and documents of three phases: pre-spin-off, spin-off, and post-spin-off
Besharov (2014)	How organizational identification develops when members differ on values	Identification through bottom-up interaction and top-down enactments	Grounded theory with interviews, observation, archival data

Although some researchers see the process as linear, others suggest that it involves some interaction between micro (individual) and macro (collective or organizational) levels. In their empirical study, Gioia et al. (2010) had two objectives: both to explore how members of a new organization develop shared understandings and how this creation allows for the organization to act in its field. These authors consider this process not only linear but also "mutually recursive and constitutive" (p. 6).

In their longitudinal case study of the College of Interdisciplinary Studies, a new school within State U, Gioia et al. (2010) started their analysis when planning committees were being formed. Through their 8-year study, Gioia et al.'s (2010) objective is to explain how an organizational identity is formed, and then how this new social actor is able to

make identity claims and be legitimatized through making claims and receiving feedback from the field.

As we can see in Figure 1.2, Gioia et al. (2010) present us with a specific set of phases through which organizational members arrive at a "consensual identity" (Themes 1-4) After that (Themes 5-8), their model moves towards field-level processes through which an organization establishes itself as a social actor in its field (the gray circles).

Figure 1.2: Sequential and mutually recursive phases in organizational identity formation

Figure 2. Grounded theoretical model of the organizational identity formation process.*
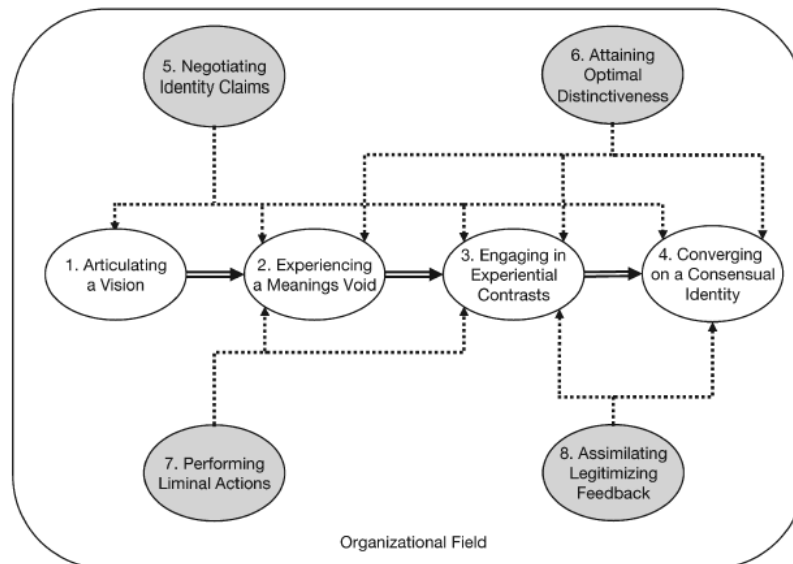
This first part (white circles) involves processes in a "more-or-less sequential, stage-like fashion" (Gioia et al., 2010: 1). The first stage, "articulating a vision" involves "broadly construed intentions about the organizational purpose" (p. 13). Assuming that the

organization's identity is still "ill-formed"[7] (p. 36) at this stage, these authors argue that the formation processes involves several phases of clarification, refinement, and strengthening. These subsequent phases involve a gradual defining of "who we are not," i.e. how the new organization is different from others, and how members arrive at a consensus about goals and visions.

Then, over time, when "virtually everyone agreed" (Gioia et al. 2010: 22) on what the organization was about, we arrive at the "converging on a consensual identity" circle (Theme 4). As the organizational identity stabilizes, Gioia et al. (2010) present an enlargement of organizational focus from within (white circles) to the outside (gray circles), which appear to interaction as a unified entity can now act in its field. Gioia et al. (2010: 35) argue that identity understandings (the white circles) and institutionalized claims (the gray circles) are "mutually constitutive processes that are recursively implicated in generating an identity." In this way they argue that "viewing identity formation simultaneously from social construction and social actor perspectives […] produced a better sense of the processes and practices involved in the forging of an identity."

According to these studies, an organizational identity is formed when it appears as a social actor. Drori et al.'s (2009) ethnography of the life cycle of an internet firm further attempts to explain organizational identity with thick descriptions, with the use of scripts, and by highlighting fluid dynamics. Yet, the process reaches some kind of closure when Art, the startup, comes to be seen as a social actor. We see this when these authors talk about "Art, a multimedia startup " (p. 715), that passed from

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[7] Ill-formed? Yet already formed nonetheless?

"…preoccupation in developing Internet applications" (p. 726), to "… reconstructing its identity and accordingly created and lost internal and external legitimacy" (p. 731). In cases like this, when the organization becomes active (an entity that can act in its field), individuals become passive (their individualities are meshed into a collective).

In short, we see in these studies an assumption that a different set of processes occurs when organizational identity is in formation versus when it is "already formed," i.e. when it emerges as a newly constituted autonomous agent. (For example, in Drori et al., 2009, Art, the startup, had never appeared as a social reality before.) These micro-macro studies tell us that central, distinctive, and enduring features do not pre-exist from the outset; they reveal the underlying processes that *macro* studies take for granted. Broadly speaking, these studies explain how organizations move from a state of organizational non-identity (or what Gioia et al., 2010 would call a "meanings void") to a state of organizational identity, often in a gradual sequence.

To sum up, all of the studies in this literature review would agree that organizational identity cannot exist without field-level legitimation. Based on this, the assumption is that the organization has to emerge as a social object in the world. While Macro studies take internal understandings for granted, Micro-/Macro studies argue for a more comprehensive view of the process which would only be considered complete when internal agreements are legitimated by feedback from the environment, as we can see in Table 3. (Note that there is no study for a potential *Micro* category, suggesting that internal sensemaking and sensegiving processes by themselves would not "form" an identity).

Table 1.3 Summary of different perspectives

	Macro	**Micro-/Macro**
Focus	New organizations constructing identity and legitimacy in a field	People forming and developing organizational identity through time and how this new organizational identity gains legitimacy in a field
Processes	New organizations are established in a new field through identity claims, striking a balance between similarity and difference	Individuals arrive at an organizational identity gradually as they converge, allowing for field-level legitimation
Voices	One (single)	At least two individuals (plural)
Direction of claims	Outwards as an organization	Inwards through individuals and outwards as an organization
Identity	Pre-existing as a property of the organization, and considered as a mean to achieve legitimacy and therefore resources	Formed through a somewhat cumulative series of meaning-making process

These Micro-/macro studies thus provide us with insights on how an organizational identity emerges, somewhat from the chaos of microsocial processes to the unity in a field. These studies present processes through which the organizational identity arrives at a terminal state, or a state in which a new state of affairs, with field-level claims and external feedback starts to take place. As we go through these studies, we see organizational non-identity evolve in steps from this limbo state into an enduring and stable organizational identity with its central and distinctive features.

Organizational identity formation is thus presented in these studies as processes becoming entities, in successive steps of reification. (Reification from the Latin *res,* (things) *facere* (to transform), also called *objectification or thingification*). Thompson

(2011: 759) explains that this "commonly acknowledged fallacy" involves "the attribution of entitative existence to processes" by "transforming a social construct (such as an institution) into a thing with unquestioned, separable ontological existence." "The map is not the territory" is an example of how an abstraction or model of reality is not the thing or reality itself. René Magritte's "The Treachery of Images (This is not a pipe)" is merely a representation, regardless of the artist being explicit about it, as we can see below (see Foucault, 1976)

Figure 1.3: Representation and reality: "This is not a pipe"

Source: http://collections.lacma.org/node/239578

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According to Brubaker and Cooper (2000: 5; emphasis in the original) "reification is a social process, not an intellectual practice," and argue that researchers

should seek to *account* for this process of reification [and] explain the mechanisms through which [...] identity can crystallize at certain moments, as a powerful, compelling reality. But we should avoid unintentionally *reproducing* or *reinforcing* such reification by uncritically adopting categories of practice as categories of analysis.

For Gioia and Patvhardhan (2012: 52), conceptual and empirical studies on organizational identity indeed "presume an entity as their subject." Presenting the first author as one of the "obvious sinners" in a list of "well-intentioned guilty parties" that includes so-called process-based views, Gioia and Patvhardhan (2012: 52; emphasis in original) explain that "ironically [these works] might be characterized as models of how some*thing* (identity) changes over time."

In a way, in a substantive ontology, the formation of an organizational identity can only be about the formation of something that "already exists" because a series of processes is happening to "some*thing*." As Gioia and Patvardhan (2012: 52) explain, "we are so inclined to talk about identity as a thing [that] we both color and constrain the scope of how we consider identity." These authors add that "we are very much predisposed to freezing identity, to holding it up for examination in a sensemaking fashion, and concluding that because we seem to be able to freeze it in a moment in time, it must be a freezable thing." In a reference to the first author, they point out however that "what's more, he will probably sin again, because identity is much more easily seen not just as an entity, but as a possession." The "sin," to use Gioia and Patvardhan's (2012) term is, it seems, repeated in Gioia and Patvardhan (2015). Indeed, many studies on organizational identity , present reification in successive steps similar to Figure 1.2. In these studies, there is a move from what is typically termed as a "descriptive codes" (close to the data) to "axial codes" (more abstract) in order to model a relationship

between states, like in Figure 1.2. (Note Figure 1.2 is from a different study than Figure

1.4).

Figure 1.4: From Arrows to Boxes. Data structure in Patvardhan et al. (2015)
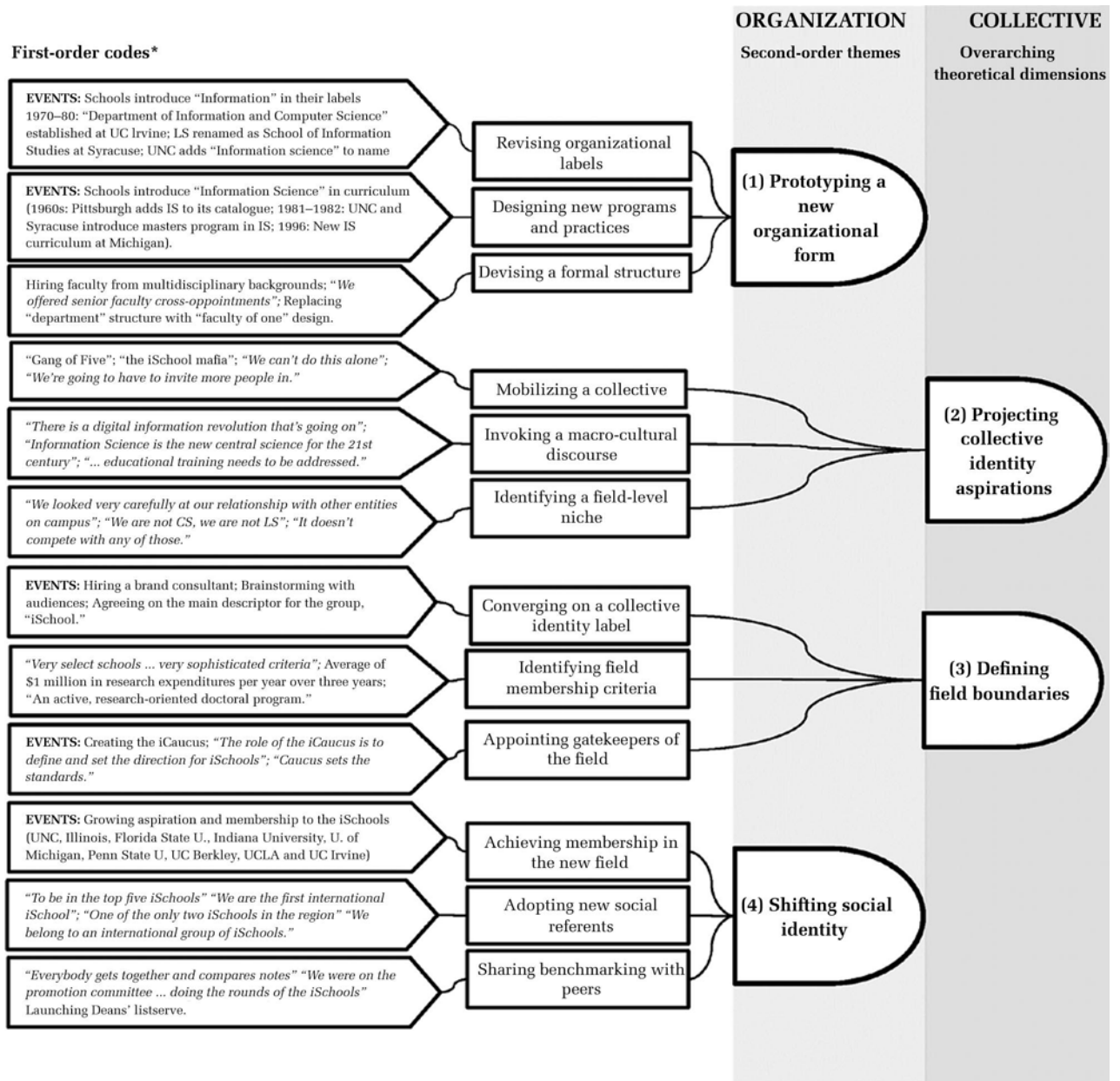
Yet, as Gioia and Patvardhan (2012) ask, "what if we considered identity as an ongoing process of construction, rather than a tangible, if ineffable something?" In the next part of this chapter, I consider this question of organizational identity formation from a process perspective.

1.2 From entity to process

In this section, I develop a process understanding of organizational identity formation. I start by broadening our understanding of process perspectives and ontology and then shift consideration from "organizational identity" to "organizational identity work" and discuss its implications.

1.2.1 Process perspectives

As we have seen, the above-reviewed studies talk about an organization's identity as either formed from the outset seeking field-level legitimation (section 1.1.1) or being formed through a series of processes (section 1.1.2). Henceforth, I talk about organizational identity *as* processes. The difference is at the level of ontology. The above studies consider processes with a substantive ontology, one in which the world is understood to be formed by substances that exist independently of other substances and are understood to possess enduring qualities. A series of processes *happen* to these substances (see Langley et al., 2013).

I am arguing for a way of *seeing* the world as constituted of processes, implying a shift at the ontological level. As Fachin and Langley (forthcoming, original emphasis – see

Appendix) explain, "a process ontology would tend to focus on the way in which events, activities, and practices come to reconstitute organization (or organizing) in every moment, rather than focus on *the* organization as a well-defined object." For Langley and Tsoukas (2010: 3), process research is aimed at unpacking entities "to reveal the complex activities and transactions that take place and contribute to their constitution."

While my objective here is not to present a historical account of process theories (see Hernes, 2008; Helin et al., 2014), I find it helpful to advance this ontological distinction between entities and processes by illustrating with a debate that goes back to the origins of Western philosophy. Typically traced to philosophers in Classical Greece, a substantive ontology was developed based on defining the world through its quintessential substances (e.g. Greek atomism). Consider Socrates as the main character in this Platonic dialogue (in Reale, 1990: 54; emphasis added).

> Then how can that be a real thing that is never in the same state? For obviously things that are the same cannot change while they remain the same [...] Nor yet they can be known to anyone, for at the moment that the observer approaches, then they become other and of another nature, so that you cannot get any further in knowing their nature or state, *for you cannot know that which has no state.*

Change, according to this view, is considered to be an illusion. This substantive ontology, dominant in the history of philosophy and influential in other disciplines, assumes that a stable state is present between observations. Ontologically, process is considered as a function that happens to an existing object, rather than its essence.

In contrast, I am advancing the view which "runs counter to what we experience in real life, where some things are experienced as stable, thus providing a sense of how and when they change" (Hernes, 2014: 2); this view conceives of the world as in tension by

default, and as always changing. In this case, it is stability that appears as an illusion. As Hernes (2008: 24; emphasis added) puts it, "reality *is* change." The starting point in Western philosophy of process thinking is typically attributed to Heraclitus' (c. 535 – 475 bce) and his phrase "you can never step in the same river twice." Things, according to this view, do not have a quintessential substance but appear through an ongoing permanent flux of balancing opposites.

1.2.2 Isn't process everywhere, anyway?

Considering "everything in nature [as] a matter of process, activity, and change" (Rescher, 1996: 10) and that "long established dualisms […] need to be overcome" (Langley & Tsoukas, 2010: 3) may also resonate with arguments presented in studies with a substantive ontology. Indeed, a call for papers for the Third International Symposium on Process Organization Studies asks: "are we putting old wine in new bottles?" Studies that have considered process and movement are, according to Hernes (2008) in his review, nonetheless substantive. Here I reinforce the ontological distinction.

Langley and Tsoukas (2010: 3) explain that process perspectives draw from a relational ontology, assuming that "everything that is has no existence apart from its relation to other things." These authors use Farmer's (1997) phrase, "the student is reading," as an example. According to Langley and Tsoukas (2010), the process of reading is one of the many activities that the student performs. Through a process perspective, there is no relation of causality. In other words, the student is not considered to be changing based on what she does (as in a substantive ontology). Neither is, under this view, the student

seen as an "unchanging substance." According to Langley and Tsoukas (2010, p. 3 original emphasis) the student "*is* her experiences" and does not exist apart from them.

Adopting a process perspective implies considering change and disequilibrium as the normal state of affairs, in contrast to substantive ontology, where stability is the norm. In doing research, Langley and Tsoukas (2010: 3) talk about "*inter*-actions" rather than "self-standing actions" and Tsoukas and Chia, (2002) talk about focusing on "microscopic change" as a way to unveil taken-for-granted states of equilibria. Tsoukas and Chia (2002: 580) argue that research with such a perspective should focus on developing "how organizational members reweave their web of beliefs and habits of action in response to local circumstance and new experiences."

In this way, studies using substantive ontology would not automatically reject change, but would treat change as an exception rather than the norm. Strictly speaking, however, with a substantive ontology, a "thing" does not exist as this "thing" if it changes its state (i.e. it would move on to a new state and hence be a different thing). The proposition "if it changes, it is not identity" illustrates this point (see Gioia et al., 2013: 13). Such studies would assume that changes when, they happen, are quite limited, as they would not be substantial (pun intended) enough to alter the essence. For example, if an identity (or thing) changes, it would be assumed to no longer be the same identity (or thing). The contrast of seeing the world in terms of processes and entities is explained by Hustwit in the peer-reviewed Internet Encyclopedia of Philosophy:

> The enduring objects one perceives with the senses (for example, rocks, trees, persons, etc.) are made up of serially ordered "societies," or strings of momentary actual occasions, each flowing into the next and giving the illusion of an object that is continuously extended in time, much like the rapid succession of individual

frames in a film that appear as a continuous picture. They occur very briefly and are characterized by the power of self-determination and subjective immediacy (though not necessarily conscious experience).

In a process philosophy, then, it is change that sustains stability. As Hernes (2014: 2), puts it, this is not about "the flow of things but about things of flow." In a consideration of the work of Alfred North Whitehead, Hernes (2008: 32) explain how objects "are abstractions from processes." For him, objects are nevertheless "necessary for making sense of a fluid world, chiefly because objectification is an essential ingredient of human sensemaking." Hernes (2008) warns us however that while abstractions are useful "because they enable us to make progress in our understanding of our experiences," they are also potentially deceitful because "we tend to forget that they are abstractions, and not things in themselves." It is in this way that objects are "never present in a final state but rather are perpetually in the process of becoming." Hernes (2008: 32) concludes that "everything is in the process of becoming, perpetually" and that organizations "are a result of how events have evolved over time, and therefore they 'are' the processes that have shaped them."

1.2.3 Organizations and identities as processes

Identity, in a process perspective, is about revealing the underlying processes and repeated patterns of actions and events that are abstracted as a "self." This self does not exist apart or independently from the process of constituting it. As Chia (2003: 54) puts it, the self is a "perpetually shifting constellation of relations, never a fundamental stable unity in its own right." For Pratt (2012: 42), this involves examining "how various process come together during various identity dynamics."

Hernes (2014: 175) brings us back to

> Albert and Whetten's (1985) definition of organizational identity as the central, distinctive, and enduring nature of an organization, a definition that has lead others (e.g. Gioia et al., 2000) to question if identity should not be seen as changing rather than enduring. Such criticism risks being somewhat misplaced from a process viewpoint, because identity, if it is to have any sense, would be seen as central, distinctive, and enduring, but without the assumption that identity approaches any stable, tangible form.

Indeed, Weick (1995: 27) questions stability because "elapsed experience appears to be equivocal, not because it makes no sense at all, but because it makes many different kinds of sense. And some of those kinds of sense may contradict other kinds." Weick (1995) argues that identity is always on the move based on ongoing retrospection. Weick et al. (2005: 416) further elaborate on the connection between sensemaking and identity, presenting the formula "how can I know who we are becoming until I see what they say and do with our actions?" Considering identity as an ongoing process, these authors move the focus from the performance itself to how this performance is interpreted and used by others in interaction.

Indeed, with a stronger consideration of a process ontology, organizations appear *as* ongoing where contested interactions and identity appear as provisional understandings. As Pratt (2012:24) explains, "process perspectives view those things that appear stable and persistent as actually comprised of a multitude of activities, expressions and small (and not so small) changes." In this line, Gioia and Patvhardhan (2012: 51-52) propose shifting from presuming identity as entity to "identity as process and flow." These authors suggest "this 'thing' that is changing is actually fleeting snapshots of a process in constant motion."

The "catch" however is that the very notion of organizational identity is entitative, i.e., the very use of the term "organizational identity" creates a thing, one in which these

multiple and contradictory processes are unified and packaged in a box - an entrapment in language. In the next section, I attempt to reach beyond these limitations through the notion of organizational identity *work* – more explicitly adopting a process perspective.

1.3 Organizational identity work

"Identity is not a verb-there is no identity-ing," as Pratt (2012: 28) points out. The term identity work (somewhat as a replacement of identity-ing) is used to convey the idea of people's temporary accomplishments and ongoing activities that "are relational and involve action as well as learning/experience." This term, mostly used at the individual level (see Brown, 2015), first appeared, to my knowledge, in Snow and Anderson's (1987) study about how homeless people negotiate their personal identities through talk to construct a sense of self-worth and dignity.

Informed by Gidden's (1991) articulation of biographical continuity of "I" as the reflexive conception of personhood (Giddens, 1991) and Ricoeur's (1995) notion of narrative identity, identity work is more commonly defined as an individual's ongoing engagement to construct an "understanding of self that is coherent, distinct, and positively valued" (Alvesson et al., 2008: 15) by "forming, repairing, maintaining, strengthening, or revising constructions that are productive of a sense of coherence and distinctiveness" (Sveningsson & Alvesson, 2003: 1165).

For example, Fachin and Davel (2015) use the term identity work to explain how a film director mobilizes elements from his film to provide different discursive constructions of himself in different public interactions. In the process, it is not assumed that he is achieving an identity. Rather, these authors demonstrate how this film director gains

agency to repeatedly present a coherent version of his self-narrative, enabling him to transition from producing politically engaged documentaries to box-office successes.

The use of the term identity work does not however imply necessarily the adoption of a process perspective. Studies that talk about identity work as the transition between an "old" and "new" role (Ibarra & Barbulescu, 2010), alignments between doing and being (Pratt et al., 2006), or a bridge between two pre-existing identities (Blenkinsopp & Stalker, 2004) are assuming a substantive ontology. In these studies, identity (entity) is subject to identity work (processes). Studies on identity work based on a process ontology would not assume that an identity is worked upon, but rather that work is the subject of study.

More recently, the concept of identity work has been extended to the organizational level. As one may suspect, the term "organizational identity work" is the extension of "(individual)[8] identity work." Only a handful of studies have operationalized the term beyond passing mention. However, this notion is not straightforward at the organizational level as there is no consensus on who is (or are) the agent(s) here. (In individual identity work, the agent is always the same human). Organizational identity work has been approached in different ways, depending on whether the focus is on one or multiple voices constructing the "we," similar to what we have seen in our literature review.

Studies of identity *of* organizations (macro) focus on organizational identity work of an organization as a social actor that is enacted through leaders' speeches or corporate

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[8] When a study talks about "identity work" *tout court* it is typically implied that it is about the individual performing identity work about the individual-except, of course, if the same text also deals with organizational identity work.

communications (Golant et al., 2015; Anteby & Molnar, 2012). For example, Clegg et al. (2007) use the term "organizational identity work" to refer to claims made on behalf of a new coaching business to differentiate itself from the consulting business, the incumbents. Overall, these studies approach organizational identity work as the performance of properties of the organization, and do not consider the multiplicity of viewpoints about the organization that may exist among its members. This approaches a direct transposition from the understanding at the individual level, because the organization appears as a "superperson" (hence a "social actor").

Other studies on organizational identity work, however, may consider as many reflexive (and potentially conflicting) conceptions of "we" as there are individuals involved in the process. For example, Breit (2014: 232) talks about how through "remedial organizational identity work" members of the publicly criticized Norwegian Labor and Welfare Administration "wove together their interpretations of the critique and their senses of organizational identity." Their study draws from interviews with a variety of members, from central administration to front-line personnel, internal archival background data and media texts. Based on all these constructions, these authors elaborate on four discursive practices "whereby threatened or damaged organizational identities are remedied (sic)" (p. 239). Note that even considering a multiplicity of views, this study still assumes that an organizational identity exists (substantive ontology) as one stable entity that can be "threatened or damaged" (their terms).

Kreiner et al. (2015: 982), uses the term "organizational identity elasticity" to describe "socially constructed tensions that simultaneously stretch identity and hold it together". These authors carefully avoid presenting a set of processes explicitly happening to a

thing. They explain a series of organizational identity work tactics that expand and contract an always fluid organizational identity. In their 10-year study at the Episcopal Church, organizational identity does not appear as a set of unifying central, distinctive, and enduring features, but as dialectic tensions through which organizational identity is the ongoing result of organizational identity work carried out by individuals. In this sense, "organizational identity work" is inherently political because it reflects attempts by different individuals to construct their own potentially non-conforming understandings of organizational identity.

Yet, the processes represented by Kreiner et al. (2015) are still happening to a thing – even if it is an elastic one - i.e. organizational identity is still constituted through processes rather than appearing *as* processes. When organizational identity work "happens" to organizational identity, organizational identity work is detached from the organizing processes, somewhat appearing as processes with an existence and even essence of their own.

Methodologically, organizational identity work is largely captured in Kreiner et al.'s (2015) study as researcher interviews, becoming, in a way, a-organizational. When organizational identity work is confined to interactions with the researcher, the work described does not reflect the work being done in dealing with these internal organizational tensions but is instead a *representation* of them, depending on the questions that the researcher asks (see Kreiner et al. 2015: 1007 for a list of questions asked to each "side"). In other words, while assuming "organizational identity work as an agentic effort," these authors displace the agency to "create, present, sustain, share,

and/or adapt organizational identity" to the interview room, assuming that this reflects naturally-occurring interactions.

Studies like these advance our understanding of organizational identity work as they present processes resulting from constructions provided by different people, providing insights on how to understand and conceptualize organizational identity as a process. However, in such studies organizational identity work appears as an individualized and a-organizational process. Indeed, in a process perspective, organizational identity work performed for and to a researcher can only tell us about how a member talks about the organization in that particular interaction. It is not only the organizational identity work that is different naturally-occurring ones, but also the organizing process is also different. As Cassell (2005) points out, identity work takes place in the interview itself. In short, if organizational identity work can be abstracted, then we must assume that it has some essential characteristics.

Table 1.4 summarizes the ontological and epistemological assumptions seen so far and advances the perspective I am developing in this thesis (see sections 1.3.1 – 1.4.2). As we can see, the key difference here is ontological (and by implication, the consideration of levels of analysis). I am considering that the world only exists as processes and interrelations, while previous studies take on entitative understandings, even if they share similar epistemologies ("process" epistemology is used here as an umbrella term). Studies taking a social constructionist approach (section 1.1.2), including the term organizational identity work (section 1.1.3) are grouped together as they are, broadly speaking, about processes of construction of an organizational identity. According to Thompson (2011: 759), the misalignment in ontological and epistemological

assumptions risks producing a "loss of construct clarity" and "attributing entitative existence to processes" (reification). If we talk about an entrapment in words, studies that operationalize "organizational identity" would be placed in either one of the columns with a substance ontology. (For more on methodological differences and nuances, see Fachin and Langley, forthcoming - see Appendix.).

Table 1.4: Research on organizational identity and work: Ontology, epistemology, methods, and levels of analysis

Research	Organizational identity as a social actor (section 1.1.1) –	Organizational identity as a social construction (section 1.1.2) including organizational identity work (section 1.3) –	Organizational identity work (sections 1.3.1 – 1.4.2; this thesis)
Focus	The organization performing its own identity in search of field-level legitimacy	Processes constituting organizational identity	Reproduction of organizational identity work
Ontology	Substance	Substance	Process
Epistemology	Substance	Process	Process
Methodology	Substance	Substance or process	Process
Level of analysis	Macro	Focus on micro	Distinction not applicable

In the next section, I consider organization identity work as both "site and surface" as we have seen above (Taylor and Van Every, 2000). Within a process ontology, organizational identity work is a fluid, tangled, and temporary accomplishment existing in tandem with other processes. I elaborate on the notion of organizational identity *as* work rather than work *on* organizational identity.

1.3.1 Organizational identity formation as the reproduction of organizational identity work

Considering that an organization never reaches a formed state, but is always in formation, we can assume that organizational identity work is an activity that needs to be carried on repeatedly. Let us start with the extremes. Consider the thought experiment "if a tree falls in a forest and no one is around to hear it, does it make sound?" If organizational identity work is performed, and no one in or around the organization is around to apprehend it, does it exist? Consider "our vision is to create innovative technology that is accessible to everyone."[9] How is organizational identity work being performed differently, if at all, when: Bill Gates thinks about it during a massage? When he says it in a board meeting? When confides it in an anonymous interview? When this sentence appears on the Microsoft website (which is from where I extracted the claim.)

In this section I will conceptualize organizational identity work not only as performances in an abstract sense but also as an intertwinement with the construction and shaping of organization, enabling the ongoing reproduction of organizational identity work. Rather than painting on a canvas, organizational identity work is about both painting and crafting the canvas at the same time, as Taylor (1993) would put it. These are processes that continually constitute, shift or reproduce understandings of organizational identity over time, calling then for an understanding of how such work keeps on being performed in particular narratives.

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[9] https://www.microsoft.com/enable/microsoft/mission.aspx

The notion of organizational identity work as both performance activity and the possibilities and constraints for its own performance, implies that if the work stops, organizational identity would disappear. With this view, organizational identity does not statically "wait" for the next performance that would alter "it" but is kept alive through ongoing work. In a way, the question "who we are becoming as an organization" is "answered" by individuals in the organization as they carry on organizational identity work in their daily lives and enable its reproduction.

The reproduction of organizational identity work in the ongoing formation of an identity implies temporality and spatiality. Temporality is used here in the sense that organizational identity work enables or constrains its reproduction through time. For example, when a manager is making a speech about his firm for an audience, without interruptions or interaction, what he says in the beginning of his presentation enables and constrains what he can say next. This, as Giddens (1991) explains, is about sustaining a narrative that is "coherent yet continuously revised" (p. 5) as "interpreted reflexively by the agent" (p. 53). In this sense, organizational identity work is temporal as itself implies "the capacity to keep a particular narrative going" (p. 54).

Yet organizational identity work more often takes place in active interaction with others. In this way, organizational identity work appears intertwined with the spaces of organizing. This is because the work (the amount of effort it takes to make a point) varies. There are different possibilities and constraints (and therefore the level of difficulty of such work) when talking about the organization to a spouse, in a board meeting, around the water cooler, or in a prime time television show.

In the process of identity formation, these conversational contexts are not "out there" but are also created, mobilized, and shaped through the carrying out of organizational identity work. For example, a dinner with colleagues can become a business meeting depending on the flow of the conversation. The external environment (e.g. financial crisis) is not "out there." It comes to be stabilized as such in organizational identity work to make a point and influence a course of action.

According to Taylor and Van Every (2000), this flow of the "site" enables and constrains constructions that can be made by participants at the "surface." These authors follow a process that unfolds as people enter communication with repertoires (in our case a repertoire of organizational identities) and interact to constitute a framework, while following the constraints and possibilities for orderly interaction. In Taylor and Van Every's (2000: 39) terms:

> Through their communication, they arrive at a situation in which both subjects and their objects are constituted and thus turned into a site of organization. As they construct their situation, they also give it discursive form and a kind of cognitive as well as lived reality, in that they now can talk about what they are living. We see the role of language in this realization as providing the surface on which organization can be read.

So my use of the word "work" is actually to be taken quite literally here, and not just as a mere replacement of something like identity-ing. Work is about constituting both a framework as well as the content of a performance. As Hernes (2014: 3) points out, in a fast-paced environment, "keeping things on track and retaining coherent practices over time requires hard work." While I would consider as "easy work" (if any at all) arguing with a hard core enthusiast over dinner that intellectual properties are bad, I would, by contrast, find more effort was required to convince a representative of a pharmaceutical

company of the same proposition in a live television show. The very shaping of the situated interaction is built in as part of the work, and certain types of work become easier or harder over time.

Fachin and Davel (2015) illustrate, for example, how a film director performed different kinds of work to influence different audiences in creating constructions about himself. This appears in two different media: his films and media interviews. While identity work in his films involved a set of constraints (budget, actors, etc.), it enabled relative freedom of expression. Many of the elements in the film that these authors analyzed (*Jesus of Montreal*)*,* were symbolic and somewhat hidden, opening up multiple interpretations. In media interviews, the constraint was the situated interaction, made somewhat more challenging because some reporters held his feet to the fire. Identity work performed during his interaction with the media required different efforts and abilities to promote positive constructions of himself.

In this section, I have presented organizational identity work as necessarily situated in ongoing construction of its performance, enabling and constraining its own reproduction through time. Organizational identity work as understood in this chapter is not transferrable across situations and cannot exist in the abstract. I suggest that organizational identity work can only exist in the very meaningful structures ("site") that it creates through its own performance ("surface"), as we have seen in Taylor and Van Every (2000) above. In other words, organizational identity work cannot be abstracted away from organization because it is constitutive of and constituted by it.

Yet, if we treat organizational identity work as a situated and even ephemeral formative process with different types of performance, we are then confronted with the notions of stability, endurance, and continuity through time that are at the core of understandings of identity. If we follow Albert and Whetten's (1985) tripartite definition, while it may be clearer in a process ontology how organizational identity formation involves performances of that which is central (what is important for us) or distinctive (how are we different from others) about the organization, the notion of endurance (some form of stability of these other features through time) may (and typically does) raise concerns. In the next section I further elaborate on organizational identity formation considering the enduring nature of this process.

1.4 Enduring endurance – or, what about organizational identity in the formation process?

The idea of organizational identity as always in formation as suggested above may strike one as a rather ephemeral process, while the core definition of identity seems to connote stability. How can we then talk about organizational identity formation without an organizational identity – or one that is never accomplished? This is what I explain in this section. Studies that propose a shift towards a processual understanding of identity, with a focus on temporary accomplishments, fluidity, and ephemerality are, sooner or later, confronted with the "if it changes, it is not identity" issue. Yet, from a process perspective, as long as organizing goes on, change is inevitable, and organizational identity work appears as a way to form a temporary sense of stability. Indeed, discussions about stability and change, and continuity or endurance, touching the core of the definition of identity, have been a matter of intense debate (Gioia et al.

2013: 13). Simply put, a process approach to organizational identity may appear as the antithesis of identity (see Brubaker & Cooper, 2000).

In the past, when confronted with this ephemerality problem in identity, studies have taken a step back to entity and adopted a "both-and" framing. As we have seen in section 1.1.2, previous studies on formation start with a series of social processes and end up with an entity that is able to act in a field, in processes such as "mutual constitution" (Gioia et al. 2010). Studies on organizational identity have also considered complementarity (Ravasi & Schultz, 2006) of social actor and social constructionist approaches, "adaptive instability" (Gioia et al., 2000), "being" and "becoming" (Gioia & Patvardhan, 2012), "being" and "doing" (Pratt, 2012), and "characteristic" and "process" (Kreiner et al., 2015: 1004) in which values are always shifting yet "extend over time." We can also include in this list multi-level analyses if we consider each level as an entity (e.g. Leung et al., 2012). To account for the problem of lack of "enduringness" that appears in articulations of organizational identity as a social construction, these studies argue not only that organizational identity can be seen simultaneously as a thing and process, but also that these views are interrelated.

These studies use both-and framings to explain a series of complex social processes of identity. In diagrams, a series of arrows, circles, or boxes represent a series of processes. What is common to these studies is that a "box" like "organizational identity" is, implicitly or explicitly, the outcome of a series of interactions. I present an illustration that summarizes this assumption in Figure 1.5, somewhat closer to Kreiner et al.'s (2015) conceptualization. (The original diagrams can be found in the studies cited in the above paragraph). My point here is that however messily the process is conceptualized,

the outcome is an organizational identity, which then appears itself as a new actor in the process, remaining stable until it receives a new input.

Figure 1.5: Process studies with a "both-and" framing
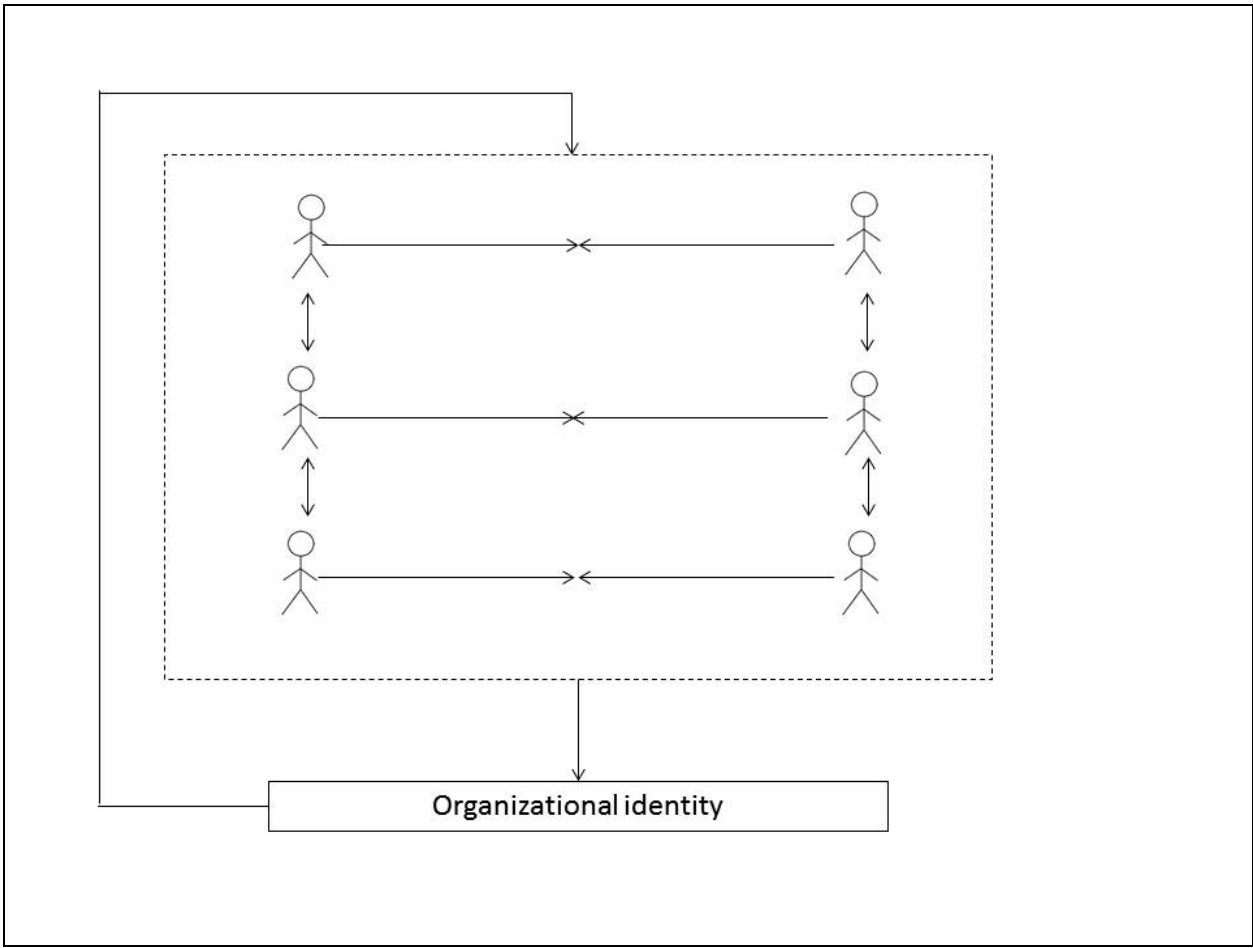
As Brubaker & Cooper (2000) point out, charging a reifying concept like organizational identity with qualifiers like flow, flux, ill-formed, multiple, fragmented, and unfolding (sometimes all in the same study) does little to render identity ontologically processual (see also Hernes, 2008) and makes it too broad for analytical purposes. By placing their studies in a substantive ontology, with "becoming," "doing," or "process" (organizational identity work) happening to a "being" or "characteristic" (organizational identity) the

researchers a link between the identity *of* the organization and a set of processes that would form this entity. Organizational identity is reified in this way, as an entity that still appears as recipient and producer of change. In a process perspective, while one can indeed see institutionalized claims going on simultaneously with everyday sensemaking, the assumption that an organization is a unified social actor who can make its own claims is set aside.

While the relationships between organizational identity work and organizational identity are often presented as more complex (as in Figure 1.5), the point here is that in a substantive ontology organizational identity work would be seen as changing the organization's identity, i.e., these studies consider identity work as work on identity. Figure 1.6. presents the underlying dynamic of both-and framing studies.

Figure 1.6: Organizational identity work forming and shaping an organizational identity (substantive ontology assumption)

What I propose instead is that organizational identity work does not consolidate into an organizational identity. From this perspective, a process does not culminate in an entity but enables and constrains other processes that we come to see as a string of accomplishments. Organizational identity work involves "freezing" an articulation of an organization's identity, but in the process perspective I am developing here this is not in

any way related to an organizational identity "in the making." Simply put, an individual

mobilizes a notion of organizational identity as a resource to perform organizational

identity work.

Figure 1.7: Organizational identity work enabling and constraining subsequent

organizational identity work (process ontology assumption)

OIW (potentially) leading to OIW   OIW (potentially) leading to OIW
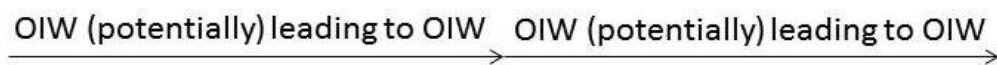
In other words, an organization is always in formation because it never gets to "have" a

set of values or practices, nor does it "have" its central, distinctive, and enduring

features within clear and well-defined boundaries. Institutionalized claims are a specific

form of organizational identity work performed by some individuals that, as Chreim

(2005) warns us, cannot be assumed to package the understandings of all its members.

While studies like that of Gioia et al. (2010) find that dividing process (organizational

identity work) and entity (organizational identity) is "dysfunctional", I argue that there

is value in taking a process ontology that does not merge process and substance (in the

same way that Plato's and Heraclitus' views never merged). I thus consider the notion of

endurance of organizational identity from a process ontology.

1.4.1 How do we talk about stabilizing an emerging organizational identity within a process perspective?

Analytically, I do not consider any *being* or entity-like understandings such as

characteristics. While I understand entity and stability (i.e. organizational identity) at

the level of practice to accomplish things in everyday life, at the analytical level these are

only ongoing temporary accomplishments that are understood as people's efforts to provide some sense of stability to an evolving and sometimes chaotic world. A process perspective is rather about unveiling the processes that underlie a sense of stability ("being"), i.e. opening up the boxes that individuals take for granted as boxes (Hernes, 2014). It is about acknowledging a sense of stability and endurance in order to reveal the underlying processes that sustain these taken-for-granted entities. This is different from reifying the social world from an analytical standpoint.

Endurance and stability do not exist ontologically but appear as a string of accomplishments that can be reconstructed by each individual. In other words, in a process perspective in contrast to an entity perspective, the illusion is not change but stability. This stability is the reproduction of organizational identity work. Arguing for the separation of social actor and social constructionist perspectives, I return to the section 1.1 to highlight how endurance has been treated in micro and micro-/macro studies of identity formation. In this way, I will be able to explain the notion of stability in a context where identities are always changing.

1.4.1.1 Endurance in social actor and social constructionist perspectives
In studies using a social actor perspective, the notion of organizational identity as central, distinctive, and enduring features of an organization is a rather direct application of the idea of social identity at the individual level: instead of an individual human, it is the individual organization, as a "superperson," in its environment. In these studies, continuity is tracked over time to assess consistency of claims and how expressions of identity generate legitimacy and access to resources. In this view, this conceptualization is possible because organizational identity is defined as something

that does not change or changes little. (Yet, as Taylor and Van Every (2000) point out, an organization changes as it presents itself to itself, so stability and this "entity status" can never actually be achieved.)

In a social constructionist sense, the understanding of continuity is yet more complicated. Organizational identity is considered to be inherently fragmented, and often understood to be in some kind of ongoing flux (see Gioia et al., 2013). If we take these assumptions seriously, we can consider that, at the same point in time, there can be as many constructions of organizational identities as there are individuals, and over time and in different situations the possibilities for snapshots of "who we are as an organization" are virtually infinite. One way to address this issue has been to consider "multiple organizational identities" (Sillince & Brown, 2009; Pratt & Foreman, 2000).

As a social construction, organizational identity is not actually an organization-wide shared understanding of centrality, distinctiveness, and endurance, even if some authors treat it that way (e.g. Gioia et al., 2010) because each individual takes on, necessarily, a separate standpoint to construct the organization-therefore each construction is different even if they share characteristics. As we have seen, previous studies have brought the entity notion back in to account for this loss of stability and continuity. As we have seen in section 1.1.2, the process of identity formation can only come to completion with a shift from a process to a substantive ontology. In studies in section 1.1.2, we see movements from organizational identity as social constructionist to a social actor, or some simultaneous combination, which then revert to an entitative ontology.

My starting point is approaching organizational identity not as a thing (analytically) but as a resource (in practice) that is activated when mobilized in organizational identity work. This mobilization takes place in that instant only. No actual organizational identity is being created by doing this, even if it is an institutionalized claim. An organizational identity may be mobilized by each individual in different situations, but is never the same and is never in itself the identity *of* or *in* the organization.

For example, a first identifiable instance of organizational identity work may be just the beginning of a conversation. This simultaneously forms the boundaries of a particular organizing process attached to that situated "we." If the first performance of organizational identity work may be relatively easy, sustaining an ongoing evocation of an identity for a "we" and diffusing it may not be so.

As we can see in Figure 1.8, the performance of organizational identity work is always changing and in movement. The performance of organizational identity work represented by an individual (arrow 1) gains and changes meaning as people react to it (arrow 2), performing back to the person or to someone else (arrow 2.1). Arrow 3 is not a new performance but an inevitable change of meaning from a previous performance. So, as long as there is organizational activity, meanings can never be stabilized per se because revising constructions is inherent to the process. In contrast to Figure 1.5, if no one else performs organizational identity work (for example, by saying something like "we are innovative") both the organizing process and the meanings surrounding it would vanish. In figure 1.8, no box is created detached from the organizing process as in Figure 1.5. The equivalent of the box is the shape provided by the arrows.

Figure 1.8: Organizational identity work reproduction: inherently about change
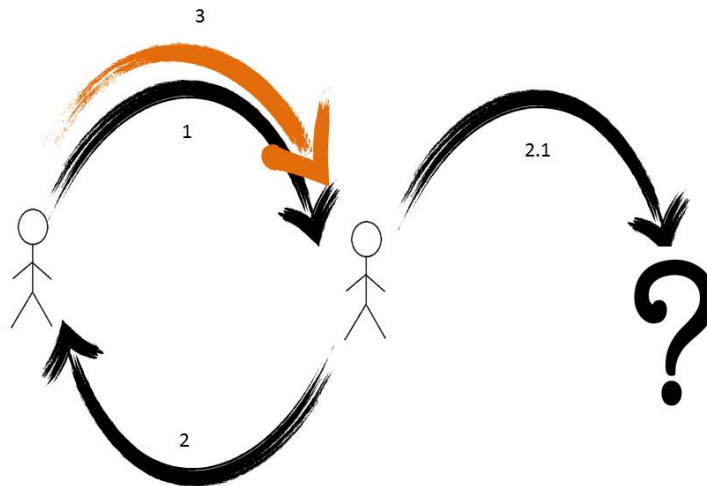
Figure 1.8 illustrates the process of the formation and reproduction of narratives about the organization. From this perspective, the organization cannot narrate itself per se; rather, there are constructions performed by human beings that are associated with a particular "we" that both constrain and expand the boundaries of this narrative, while providing the conditions for its performance. The equivalent of the "box" is the very contours formed with the arrows, simultaneously creating (rather than informing) the organizing process. Note that if we remove the second individual, organizational identity work is done in the abstract, and the arrows would no longer form any particular shape. In cases like these, these arrows (processes) would no longer change, yet would not in themselves become entities because they would not be able to be sustained.

The main difference between Figure 1.5 and 1.8 is that in the former, a structure is formed by interactions and in the latter it *is* interactions (in which a term like structure

is used in a very loose way). In Figure 1.8, we see a narrative about the organization as the and setting boundaries for further performances of organizational identity work. In this perspective, there is no box created independently of the organizing process but the box *is* the arrows.

1.4.2 Endurance in a process perspective: reproducing organizational identity work

When organizational identity work is continually reproduced, a sense of emergence occurs. I define endurance as the ability to last or the capacity of reproduction. Endurance is not about continuity in time but more in the sense of resilience, in Vough & Caza's (2016) terms, or in Giddens' (1991) terms, making the process continue, the capacity to keep particular narratives about "we" going relentlessly (whatever that narrative would be). This is indeed future-oriented, typically done through a mobilization of the past as a discursive resource ("We have always been X, therefore…") as the most common form of constructing endurance. In short, endurance is the reproduction of the process that sustains snapshot views of organizational identity, without forming it directly, but sustaining the possibilities for its formation insofar as organization continues.

For example, convincing others that "ethics" is a long-lasting feature during a board meeting may help the organization endure, but "ethics" is not an enduring feature per se. It may be agreed upon as such in a particular interaction, and in that interaction only, "ethics" can gain and sustain continuity. Endurance is thus about the potential for making and consenting to such a claim to keep that narrative going. Such a narrative is sustained not only with discourse but also by a series of practices that can be interpreted

as being ethical (e.g. it is may be a lot more work to sustain "ethical," in some interactions if there are many corruption scandals tied to the organization).

Indeed, endurance is typically worked out through the mobilization of discourses about temporality, with a focus on the ongoing reconstruction of the past (Sillince & Simpson, 2010). Since the past is not "out there" people can draw from and reconstruct temporal resources to enable the organization to keep going. Such a dynamic appears in Schultz and Hernes (2013) in their study of a crisis at LEGO where they talk about how identity reconstruction in the present with the redefinition of mission, vision, and beliefs enables future identity claims in relation to stakeholders. By restoring foundational values in the present with textual, oral, and materials memory forms, managers in this study were able to work out the crisis and make coherent and bolder claims for the future. Stored memory enabled organizational identity work performance.

In Ybema (2010: 486), romanticizing the past appeared as a resource to oppose change in the newspaper's catholic-based ideological heritage as the organization evolved. In contrast, an "anti-past talk" was used to promote change by rupture, in a battle for who is "the proprietor of the present." In my view, the case of *Volkstrant,* was less a battle about continuity or rupture with the past, as Ybema (2010) suggests, but more about creating the conditions to endure, i.e. keep organizational identity work going, allowing for the continued negotiation of meanings of what *Volkstrant* is about.

 In this way, continuity (or endurance) appears in studies as a rhetorical tactic, in which past, present, and future appear as resources for organizational identity work. Yet, there are other forms of organizational identity work that enable the organization to be

reproduced and endure in moments of tensions, contradictions, and collective self-doubt (Alvesson et al., 2008). Identity work has appeared to be instrumental for the organization's continuity as people engage in constructing the legitimacy of the organization (Brown and Toyoki, 2013) remediating trauma of workplace bullying (Lutgen-Sandvik, 2008), and resolving contradictions with marginalized groups in moments of change (Creed et al., 2010).

Howard-Grenville et al. (2013) studied a case on collective identity resurrection, with the rise, fall, and resurrection of Track Town. These authors do talk about memories but also highlight tangible (financial, human, and physical) and intangible resources (symbols and relational systems) over time. The tangible and intangible resources arranged through the leaders and custodians enabled performances and responses that stimulated reproduction organizational identity work by stimulating the recollection of memories.

When Howard-Grenville et al. (2013), adopt a substantive ontology, and talk about how "a collective identity fades" (p. 113), under a process view we can see this as organizational identity work no longer being performed, or at least not enough to enable people's ontological awareness., In a substantive ontology or at the practical level, if the organizational identity is dying, resurrecting, or fading, in a process ontology the ongoing reproduction of organizational identity work enables the performers of organizational identity work to perform.

In other words, there is no organizational identity (in practice) in the absence of organizational identity work. In this case, this perception that identity is fading (in

practice) is rather a series of snapshots that freeze the results (or series of states) of decreasing identity work activity. We can understand endurance as particular narratives about a "we" that can be widely and continuously reproduced. . As Howard-Grenville et al.'s (2013) study shows us, this process goes beyond discursive performances-i.e. organizational identity work, but also non-discursive processes. Organizational identity formation is about the many means available to keep particular organizational identity narratives going.

Seeing endurance in this way invites us to rethink organizational identity beyond organizational identity work. This implies that organizational identity work is indeed important to keep the organizational identity going, but that this narrative can also be sustained by non-narrative elements, i.e., activities that are typically under the radar in studies of organizational identity studies.

For example, working on a product rather than having a meeting about core values may further enable the long-term reproduction of "who we are" and "what we do." In this case, because the organization could potentially gain the financial means to keep going, organizational identity work can keep on being performed. Organizational identity work is only in rare cases a self-sustainable activity, and can hardly ensure its own reproduction through discursive performances alone.

Materiality, while not being organizational identity work directly, sustains organizational identity work. For example, Fachin (2013a) explains how through "sense-aiming", fashion designers create a material that is later mobilized for identity work. In this case, the designers are not sustaining the identities of their organizations through

their organizational identity work alone. Their everyday work with materials strongly support keeping the narrative going.

In this study, Fachin (2013a) demonstrates how one of these designers spent years developing designs with polyamide fibre. Later on, the use of this material granted her considerable agency to construct herself as unique (because no one else used that material in that way) and ecological (because they were recycled), besides attracting media attention to reproduce her narrative. Arguably, organizational identity work by itself (in the discursive sense) would hardly enable the ongoing reproduction of it ("talk is cheap"). Materiality, not at present, but mobilized in the future as a resource, enabled organizational identity work to keep going.

In the everyday, organizational identities can be formed rather easily. As the reader finishes this chapter, he or she can perform organizational identity work to the next person and make up something like: "My company, [your name] Inc., is innovative and ecologically responsible. We produce gardening sensors." This is a task that is not so easy and goes beyond organizational identity work. Organizational identity work is thus not about constructing an organizational identity but is one of the ways to enable (but also constrain) organizational activity to keep on going (endurance),[10] in turn potentially allowing for organizational identity work to keep on going too (reproduction). The question is not then how an organizational identity is formed (as studies in 1.1.2) but how organizational identity work is reproduced.

I close by highlighting the dangers of considering that an organizational identity can reach a stable and somewhat tangible form, gaining a life of its own. Previous studies on

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[10] This includes organizational identity work done before starting a business. I consider this as organization too.

organizational identity formation, including those more process-oriented ones, adopt this view of entity to account for identity stability. If this entity exists regardless of the processes that would (or not) be constituting it, organizational identity would only reach stability per se if organizational activity stopped. So with a substantive ontology, identity would only be reached "after" rather than "during" organization, while in a process perspective organizational identity would disappear when it is no longer performed. With a substantive ontology then, organizational identity would only be actually achieved and stabilized, paradoxically, with the end of organization.

In the next chapter, I develop how to study organizational identity work empirically. In the following chapters, I further explore these insights in empirical studies.

2. Empirical approach and methods

In this chapter, I develop the approach and methods for empirical research on organizational identity work, considering the focus on mundane organizational life and the overarching exploration of how people construct central, distinctive, and enduring features for and about the organization in the everyday. Using a process ontology lenses, this chapter presents an ethnographic case study at Technica, with multiple sources of data, and further describes the overall orientation of Chapters 3, 4, and 5.

2.1 From autopsy to biopsy

> An organization is a form of life. It is structuring of the social and cultural world to produce an environment whose forms both express social life and create the context for it to thrive [...] this does not mean we cannot study the living cells of organization, biological or social/cultural. It does, however, mean rethinking how we do so (Taylor & Van Every, 2000: 324 and 325).

Studying organizational identity work empirically requires deep knowledge of the "other" by getting close to the phenomenon (Van Maanen, 1988; Watson, 2011). As argued in Chapter 1, research based on interviews, the typical methods for studying organizational identity formation (see also Oliver & Roos, 2007 and Ravasi & Canato, 2013 for other of methods), reify "fixed texts or frozen states of subjectivity" (Karreman & Alvesson, 2001: 66; see also Bernard et al., 1984). The study of organizational identity work as an ontological shift presented in Chapter 1 requires, as a starting point, longitudinal real-time and naturally-occurring data (Fachin & Langley, forthcoming – see Appendix; see also Langley et al., 2013).

The empirical studies in this thesis are thus oriented towards getting as close as possible to the phenomenon, in its natural occurrence, including data that is generated as if (or almost as if) there was no research taking place. I adopt a *process as activity* research

strategy (Fachin & Langley, forthcoming – see Appendix) to capture the phenomenon "in the making." As Fachin and Langley (forthcoming) explain, this type of research with naturally-occurring data, for example email exchanges on a website (Coupland & Brown, 2004), enables getting closer to a process ontology than interview-based studies that consider process as a sequence of events through time or others that develop on a reconstruction of their experiences through narratives (see Fachin & Langley, forthcoming, for more on *process as evolution* and *process as narrative*).

This thesis is based on a single case study to enable "fine-grained data collection opportunities involving naturally occurring interaction" (Fachin & Langley, forthcoming). Some studies with a similar approach are of an ethnographic type with interviews, observations, and documents (Rouleau, 2005) while others are based on a single meeting (Karreman & Alvesson, 2001). These studies follow, as McIness and Corlett (2012: 28; emphasis in original) explain, that "it is within everyday talk that identities are evoked, drawn upon and reconstructed" yet "the literature lacks an account of *how* identity work is undertaken in conversation."

For Fachin and Langley (forthcoming), this fine-grained analysis should avoid treating data as "fleeting events detached from their surroundings." As these authors explain, *process as activity* research tends to involve the collection of much more data than actually ends up appearing in a research article. This is the case for Rouleau (2005: 1419), for example, who uses the metaphor of "microscope" to provide an "understanding of the whole through its tiny parts, routines, and conversations" in her study with middle-managers in a clothing company.

Indeed, as Rouleau and Balogun (2011: 957) argue, in the study of "situated sensegiving activities," it "is necessary to be located at the micro-level in order to see how it works in action" as well as in context. These "extra data" enable contextualizing the surroundings of these micro-interactions by providing a temporal sequence, identifying focal actors, and including reflexive notes from the researcher (Van de Van & Poole, 2002; Gioia & Patvardhan, 2012).

One dilemma of doing *process as activity* research, according to Fachin and Langley (forthcoming - Appendix), is that getting close to the phenomenon may accompany "difficult[ies] in reaching beyond their description [as these] interactions can easily become their own explanation." Simply put, theorizing risks becoming commonsensical. In this thesis, such a risk is mitigated with a processual perspective of the concept of organizational identity work (Chapter 1), because this approach counters the sense of stability and experiences of everyday life (see Hernes, 2008; 2014). In the next sections, I explain how I set out to capture a world on the move without rendering it static.

2.2 Getting close to the phenomenon

Building on the ontological and epistemological assumptions that we have seen in Chapter 1 and the *process as activity* research strategy (Fachin & Langley, forthcoming), a process study requires analysing and writing about life that prioritizes close, intensive, and sometimes interactive, observation. This approach enables a style of writing based on the researcher's involvement with people, relating observation and experiences of practices to a broader cultural understanding. In a way, this endeavour is about striving to preserve the story of the participants while bringing imagination to play, going back and forth between interpretations and observations of the field (Van Maanen, 1988).

Fieldwork involves collecting data through mind and body according to a set of contingencies that pertain to a set of individuals, and maintaining a distance that enables "seeing" patterns that the participants may not. As Barley and Kunda (2001) explain, this is more about seeing how people see themselves doing what they do rather than seeing what people do. Such localized meaning-making, according to Watson (2011; his term) allows a closer understanding of "how things work" in the world of the participants.

As Locke (2011) points out, in such a form of exploratory research nothing is linear or predictable. This requires openness to deal with and analyse new (and likely unexpected) situations, zooming in on how people act, feel, and think while (re)designing the research. In such discovery-oriented projects, according to Locke (2011), constant revisions of research questions, data, analyses, and even concepts are a matter of course.

Another point to raise when getting closer to the phenomenon is that researchers are themselves being shaped by the field as they are shaping the research. As Rouleau (2010: 261) explains, researchers are also involved in the co-construction of sensemaking by recognizing the "skills of individuals as well as their social embeddedness." This is about "the researcher's skills for entering into contact with the other, establishing a relation of trust and considering themselves as partners in the research rather than outside observers."

Indeed, a research in situ is about relationships, positionality, and identity work. In these, the researcher speaks for and constructs identities, shaping the context, by

selecting some voices and silencing others when writing up the research paper (Clifford, 1983; Van Maanen, 1988). Considering the asymmetrical power relationships between researcher and researched, we can see the researchers as interpreters of the stories of others and narrators of their own. As Cunliffe and Karunanayake (2013) argue, this consideration involves bringing to light researcher-researched identity dynamics by being reflexive about how we influence people and how people influence us. Thus, the fluidity of insider-outsider relationships is a form of identity work.

Furthermore, this immersive and longitudinal character of this research brings us challenges in presenting all the data in a manuscript, considering the

> insurmountable practical problem which arises from extended periods of fieldwork. Specifically, this revolves around how much of the ethnographic description and the corpus of transcripts allied with the fine-grained analysis can be reproduced in one paper. It is a problem which continues to challenge organization/management scholars (Samra-Fredericks, 2003: 148)

In this thesis, this problem is addressed by segmenting the work into three chapters. Chapter 3 presents an ethnographic account, the "what was happening?" Chapters 4 and 5 can be seen as discursive studies informed by the ethnographic case studies, where the unit of analysis is discourse and the focus is on conversations, each chapter with a different approach to the data (see 2.5).

I draw from several methods for this ethnographic case study. My fieldwork focuses on naturally-occurring happenings, including two years (June 2012 – April 2014) in situ that enabled me to understand the point of view of participants, ranging and alternating from my innocence and ignorance to a relatively grounded context-sensitive interpretation. This also includes archival online data (Kozinets, 2015) from October

2008 to April 2014. I present the empirical setting (2.3) before describing data collection (2.4) and data analysis techniques (2.5) in detail.

2.3 Setting the empirical setting

Weick (1974: 488) argues that to "add some bite to theoretical formulations it is necessary to get data someplace else" other than in established organizations. Weick's (1974) proposition, which had relatively few adherents, involves five elsewhere places as candidates: "everyday events," "everyday places," everyday questions," "micro-organizations," and "absurd organizations." The study of Technica fills these data criteria, even perhaps including the fifth one. This will become clearer in Chapter 3. My objective for now is explain the access to Technicans and why they were selected as appropriate.

My criteria for fieldwork started out as much more inclusive, with a more intensive search in May-June 2012 (following the comprehensive examination). My prerequisites were: (a) a group of entrepreneurs in an earlier stage of association (0-2 years) and (b) the possibility of collecting ethnographic data (e.g. entrepreneurs that would be willing to let me shadow them from time to time). I came into contact with Technica indirectly through the Entrepreneurship Centre of a university. I had contacted Johanne at this centre by email and then met her there. I explained what the research was about and told her that I was looking for a group of entrepreneurs in the earlier stages of their endeavor. She was receptive, and asked me to write an email about the research so she would forward it around (to entrepreneurs and other entrepreneurial associations). One of the responses was from Pierre from Technica, as I describe in the first entry of my auto-ethnographic journal.

> They [Pierre] answered my e-mail. I went to the website. It looked really interesting and different. We decided to meet right way. So [in a couple of hours] I went [to their lab] and met Sergei. He was the only one there. We talked for about an hour and a half.

I note how happy I was about the data I would be able to get, even if I did not quite understand what the organization was about after exploring the website and talking to Sergei.

> It was like the researchers' dream come true. I would have access to all data. Sergei, on the same day gave me all the accesses [to past e-mail discussion lists, documents, etc. besides links to blogs, videos and other websites]. I still didn't get much of what they did but at least I know I can get a lot data (self-ethnographic journal, June 2012)

So, a month after beginning the search for a field by sending emails, making calls, going to entrepreneur fairs, networking events, and workshops for entrepreneurs, I had finalized on this case. Indeed, as I note in the thesis proposal (Fachin 2013: 124), in the first visits I also found the field attractive considering the dynamics between the co-founders, somewhat confirming my choice:

> I was satisfied to find out (preliminary) that Technicans appeared to share some values but were far from a consensus on important issues and especially on what to do about them – and were highly engaged in working on them.

My field site became, in June 2012 this intriguing organization called here "Technica" founded in February 2011, with an overall proposition for innovating technology and their own business model. My exit from this fieldwork was much more abrupt, however, ending as the organization broke apart in a collective email exchange (see Chapter 3 for a full story). The type of data that I was able gather also shaped the research, as we will see next.

2.4 Data collection and generation

Data were generated both by myself (e.g. interviews, observations, and autoethnographic journal) and Technicans themselves (e.g. emails, documents, and videos), which I collected (see Table 2.1). Here I use the term data collection in a more literal sense as it involves extracting the material that was being generated anyway in the process of organizing, i.e., naturally-occurring data. Put simply, data collection in this sense means a lot of ctrl C + ctrl V and downloads (see Kozinets, 2015).

I note that this research and my approach to the fieldwork was somewhat shaped by the unexpected vast amount of data that Technicans were themselves generating. Their overall orientation towards openness and transparency meant, in practice, a great deal of documentation, emails, meetings, and videos-including 24/7 online video streaming of their lab activity. In particular, the emails came to be an important arena for organizational identity work (see Chapter 4), particularly when the organization grew and participants from around the globe joined these debates. I was not expecting these relatively easy to gather naturally-occurring data before starting the fieldwork.

Furthermore, not only was this data generation the naturally-occurring type of data that I favour but it also enabled me to produce data that I would not otherwise have been able to generate. For example, knowing that I could record meetings and/or that other participants systematically would do so (and share with me), I could take notes on other aspects like body language and observe and record conversational dynamics rather than writing down quotes.

The complete set of empirical material is varied, as listed in Table 3.1. All data have been analysed yet some types of data received a different emphasis and interpretation in each of the subsequent chapters.

<p align="center">Table 2.1 Data[11]</p>

Data Type	Sources	Quantity
Offline observations	- Everyday operations in the office - Meetings in Technica (see 2.4.2. for details) - Meetings outside Technica (e.g. funding agencies) - Professional events (career fairs, awards, presentations, networking events) - Social events (lunch, dinner, parties, moving)	1 day a week[12] from June 2012 to April 2014 55 pages of fieldnotes (single spaced, font 11)
Videos	- Weekly infrastructure meetings posted on YouTube - Public live stream of the office on uStream - Observer or participant of real-time online meetings - Promotional-like videos - Tutorials - Technical videos - Members' own videos - External videos suggested by Technicans	120 videos 108 hours and 20 minutes 27.4 Gb
E-mails	- Google Group e-mail forum for the Technica community - Direct one-on-one communication with a member or outsider - Participant in a discussion with more than one member or outsider - Voyeur of a conversation of members and/or outsider (in "cc")	Over 10,000 emails (see 2.4.1 for details)
Documents	- Shareable documents aimed at internal use (e.g governance) including track changes - Shareable documents written for outsiders including track changes (e.g. business plan) - Meeting minutes - PowerPoint presentations - Excel documents with budget and other financial projections	160 documents
Websites	- Technica's official website - Wikis and other collective website (NPR, VAS) - Members's personal websites (blogs) - Websites suggested by Technicans - Social media activity (e.g. Facebook, LinkedIn, Twitter) - Outsiders' websites (e.g. funding agency's website)	17 websites
Interviews	- Semi-directed interviews - Unstructured interviews and conversations - Informal interviews (not recorded, included in fieldnotes only)	25 interviews and conversations (see 2.4.2 for details)
Photos[13]	- Taken by me inside or outside the office - Taken by Technicans inside or outside the office	53 photos
Drawings	- Visual representations made by members	5 drawings

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[11] I use the terms "data" and "empirical material" interchangeably in this thesis. I do not take the term "data" literally (see Alvesson & Karreman, 2007).

[12] Less frequent in the second semester of 2013 (yet still following all emails). It was when I was exiting the field (for an initial plan of an 1-year ethnography) but then important events taking (and not taking) place pulled me back in.

[13] These cannot be shown in this thesis for confidentiality reasons. All the other materials are shown.

Self-reflexive journal	- Notes I took about myself, my feelings throughout the fieldwork	12 pages (single-spaced, font 11)

2.4.1 Emails

The email list turns out to be the main form of communication for important organizational issues, as it is inclusive of people abroad and is a medium that enables reflexivity to deal with more sensitive topics (see Chapter 4). The importance of email as a communication tool can be reflected in its quantity alone: over 2,000 threads and 10,000 emails sent between February 2011 and April 2014 to Technica's mailing list (collective emails varying from a list of 4 to 120 people as the organization grows). In Table 2.2, I present the email count.[14] (More about these participants in Chapter 3.)

Table 2.2 Emails per person

Participant	Number of emails
Sergei	3482
Joe	861
Joshua	460
Pierre	435
Nelson	334
Tom	182
Nabil	170

2.4.2 Interviews, conversations, and meetings

In this section, I explain the types of oral discursive exchanges I had with participants that were either not recorded (only appear in fieldnotes) or that were recorded and transcribed.

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[14] I thank Sergei for granting me owner access to this group and thus access to these statistics.

2.4.2.1 Informal interviews and chats (fieldnotes only, not recorded)

On virtually every fieldwork day I had some kind of spontaneous chats with participants, and entered them as fieldnotes. These happened mostly at the Incubator Centre where Technica had a lab/office. These took place mostly in the lab/office itself as well as hallways, bathroom, collective kitchen, or downstairs in front of the building (generally for smoke breaks). Some of these were also away from the lab, like taking the metro with participants, having dinner with them, helping them with a barbecue at Joshua's place, or meeting potential investors and collaborators.

What I call informal interviews were initially entered as fieldnotes discretely during the interaction or event and augmented only after the interaction or event (Emerson et al., 2011). On the same evening, I transferred/organized/elaborated these notes in a Word document. There were thus three stages: taking discrete notes in a notebook (during the interaction), elaborating these notes in the notebook (as soon as possible after the interaction), and writing some kind of narrative in a Word document (typically a couple of hours after a day of fieldwork).

These conversations were not recorded for diverse reasons, such as excessive ambient noise (some were recorded but the quality ended up being too low to transcribe), technical difficulties with the recording, or my understanding that interrupting the conversation to turn on the recorder in front of the participant would reinforce researcher-researched power relationships and then influence the data that was generated (Klenke, 2008). Furthermore, in cases like shadowing participants to meet representatives at a funding agency, I considered asking permission from this third-party to record the interaction inappropriate, potentially biasing the exchanges from the

outset. These conversations appear in the 55 single-spaced pages of fieldwork and are presented in Chapter 3. I talk about topics of conversation in section 2.4.3.

2.4.2.2 Interviews, conversations, and meetings (recorded and transcribed)

In total, there were 25 interviews and conversations with 8 different key participants and 4 peripheral members. With one exception, semi-directed interviews were individual. Unstructured interviews and conversations involved 1-4 participants (see Table 2.3. Most of the interviews on the same day were collective.). Meetings had from 3 to (about) 40 participants during Project RISE (see 3.5.1). I estimate most of them had around 5-6 discussants, in a total of 18 meetings. (These numbers are for those that were recorded and transcribed.)

Considering that Technica had a list of 120 members and about 40 others who appeared for Project RISE in a quite intensive flow (see Chapter 3), in Table 3.2 I only included people who appeared at least twice in any of the three categories.

Table 2.3 Recorded and transcribed interviews, conversations, and meetings

Participant[15]	Semi-structured interviews	Unstructured interviews and various oral exchanges[16]	Oral meetings
Sergei	24 June 2012 24 July 2012 15 September 2012 28 June 2013	14 September 2012 10 October 2012 9 November 2012 16 November 2012 22 January 2013 21 March 2013	10 December 2012 18 December 2012 14 January 2013 14 May 2013 1 November 2013 8 October 2013

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[15] Joe, Kevin, and Mary were abroad and had exchanges through Google Hangout. Nabil, Martin, Jeannette, and Kevin were some of the stable temporary participants, being involved in Technica for shorter periods of time (see Chapter 3). Participants who were only in one meeting do not appear in this table. Technica had 4 stable full-time members from (or almost from) inception: Sergei, Pierre, Tom, and Joshua (see Chapter 3).

[16] Four other individuals, for whom I could also create pseudonyms, with relatively rapid passages at Technica participated in the conversations of 10 October as well as 9 and 16 November 2012. So, in total, I had unstructured interviews with 12 participants.

		5 April 2013 15 July 2013 30 September 2013 23 October 2013	10 January 2014 (afternoon and evening) 7 February 2014 27 February 2014 31 March 2014 1 April 2014 3 April 2014
Pierre	20 July 2012	14 September 2012 5 November 2012 16 November 2012 2 April 2013 22 January 2013 23 October 2013	5 November 2012 18 December 2012 14 January 2013 10 January 2014 (afternoon) 14 May 2013 5 March 2014 21 February 2014 26 February 2014 3 April 2014
Tom	24 July 2012 25 October 2012	14 September 2012 21 March 2013 2 April 2013 23 October 2013	10 January 2014 (afternoon) 21 February 2014
Joshua		14 September 2012 9 November 2012 22 January 2013	1 November 2013 14 May 2013 10 January 2014 (afternoon and evening) 21 February 2014
Nabil		15 October 2013	8 October 2013 10 January 2014 (afternoon and evening) 21 February 2014 26 February 2014 5 March 2014 19 March 2014 3 April 2014
Joe		4 February 2013	5 November 2012 16 November 2012 10 December 2012 10 January 2014 (afternoon and evening)
Mary			10 January 2014 (afternoon and evening) 26 February 2014 5 March 2014
Martin		5 April 2013	14 May 2013
Kevin		24 June 2012 20 August 2012	10 January 2014 1 April 2014
Joseph			10 January 2014 (afternoon)

			21 February 2014
Jeannette			10 January 2014 (evening) 7 February 2014 1 April 2014

Semi-structured interviews were more formal and instrumental, with a time to start and (expected) to finish, on an average of 1 hour each. These had a list of questions or topics to cover during the interview that I had elaborated beforehand (see 2.4.3 for the elaboration of these questions and topics). Most of them were held outside the office/lab, in privacy with the individual, for example in the meeting room of the Incubator centre. Although my objective was to gain an understanding of the naturally-occurring processes, these were helpful to grasp the participant's detached and a posteriori reconstructed narratives about the organizing process. I agree with Hernes (2014: 2) that

> The things of flow include the actors who find themselves having to organize the world around them in the flow of time. They cannot simply step back out of the flow, decide how to organize others, and then step back into the flow, because such an ideal scenario would presume that one could stop time, even reverse it, and start it again. […] Instead, the actors have to organize while on the go, while in the flow of time, staying entangled with everything else that makes up the flow.

Unstructured interviews and conversations were diverse forms of oral communication, often a natural extension of observation (Patton, 2002). I consider many of these quite similar to 2.4.2.1 (except that they are recorded). These involved questions that were more open than semi-structured interviews and went more with the flow of the situation, often when I provided some kind of hook to start a conversation. This type of interview balances power relationships between researcher and researched (Klenke, 2008; Cunliffe & Karunanayake, 2013; see also 2.4.4 on building rapport with participants). Some of these talks were also recorded by participants themselves as an

effort to be transparent and share everything with the community. When held inside their relatively small working office, other people most likely overheard the conversation or parts of it (i.e. there was often an audience) and in some cases joined in. In these instances, I interacted less and observed the interaction with a conversation topic that I had sparked.

Oral meetings were organized by Technicans with a time to start and not always a time to finish, most took 1-1.5 hours and the longest lasted 3.5 hours. (They are called "oral" to make them distinct from email meetings.) These meetings typically had people offline and online and took place in the lab or at the meeting room at the Incubator centre. These meetings were recorded by me and Technicans themselves.

In Table 2.3, we see more data from Sergei. This reflects the amount of time he spent doing organizational identity work in his every day activity. Joshua, for example, was not readily available to stop his work for an interview or more prolonged forms of chat, and was only able to offer me his "divided attention"[17] (Joshua, 26 September 2012). Others, notably Sergei, were often available and had a lot to say and even "volunteered" at occasions for an interview. This willingness or unwillingness to talk about identity and generate data was in itself data for Chapter 5.

With the exception of Mike, who I never met because he had quit in the first month after a dispute with Sergei, more than a year before I entered the field, (see Chapter 3) and declined to give an interview (email with Mike 22 November 2012), I consider that the

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[17] This is in no way to blame participants. All participants were cordial and helpful. I considered as data that some members would rather spend their time doing R&D than talk to a researcher about identity or otherwise manage their time and priorities (see Chapter 5). Understandably, not everyone had much time to devote to generate data for my research project.

opinions of focal actors, including the more "silent" participants, were well captured, particularly in less obtrusive forms of interaction, emails, recorded chats, or meetings, or spontaneous conversations entered as fieldnotes.

2.4.3 On online and offline data

I consider the online and offline worlds as intermeshed, and tend to reject any boundary between them. In terms of this research it could be helpful however to see these as two groups used in interaction for data collection, generation, and analysis. Interviews would in themselves be insufficient for a process study, so diverse forms of naturally-occurring data were important too.

Both online and offline data were helpful to get the flow and to step back from the flow. The online data generated by participations in situ fieldwork as it helped me elaborate questions, topics of discussion, or otherwise guide my inquiry. For example, based on the analysis of emails and blogs (see 2.5), I was able to ask questions in interviews and conversations (see 2.4.2) that went deeper into the matter. For example, questions like "How does this self-organizing work?" or "Wouldn't this informal structure [to support or implement a vision] risk being chaotic when Technica grows?" allude to the tension between idealism and pragmatism that was appearing in desk analysis (see 2.5). In turn, the discussion with participants of what I found online (blogs, emails, documents, etc.) helped make better sense of and contextualize these data.

Furthermore, responses to open-ended questions like "tell me about your partners" in unstructured interviews or informal conversations (see 2.4.2) were less likely to be taken at face value for in situ interaction, considering that I had already read about a series of disputes in blogs and email. This background knowledge arguably promoted a more

contextualized interpretation as well as more interesting exchanges because I was able to follow-up more precisely on their responses. Also, I was able to ask questions that would otherwise have likely been impossible to pose. For example, I could ask about Mike, a departing founder who was never mentioned, who only appeared in some email traces.

To be active and more immersed in the field, I also did research on the Open Source and peer-to-peer movement as well as organizations that would resemble Technica. This type of desk research not only enabled me to make sense of data in a broader context but also provided me with information that would be of interest to the participants, and build trust and rapport, as we can see below.

2.4.4 Relating with participants and accessing data

Interacting with participants goes beyond generating data-it is about becoming part of a social group (Van Maanen, 1988; Cunliffe, 2003; Rouleau, 2010). Emerson et al. (2011) argue that it is necessary to participate in order to write. My interactions were not all driven by data, although one never knows if what appears irrelevant during analysis can become relevant later (Hernes, 2014). For example, as I note in my autoethnographic journal, I had conversations about the "cold war" and "cat videos." While these talks could suggest a more relaxed and open-for-debate aspect of Technica, they were not the type of conversations I would be prioritizing in terms of data and analysis (and they did not turn out to be too relevant later, either). Considering I had many opportunities to meet the same participants and ask questions that were more directly related to my own research interests, I was able to establish a longer-term relationship with the participants by leaving my research interests aside in certain moments.

Without having this as a strategy or goal in mind from the outset, this bonding with the participants enabled me to access more data. For example, I was often invited to attend meeting, activities, and visits outside Technica (e.g. visiting a funding agency) that I would otherwise not even have known about. I also gained additional accesses to yet more online material. Similarly, being closer and developing trust led participants to share, in private, problems that they were having with other members and other sensitive dilemmas that, I assume, would not be have been confided to a "stranger" (autoethnographic journal). I would regret it if the reader interprets this paragraph as too instrumental. I did not bond with participants as a strategy to gather data. I was already finding that I had sufficient amount of data and did not know whether there would still be much more to gather (considering Technicans were already open and sharing everything). I was motivated by my own willingness to be there and my curiosity about what people said and did.

In this way, adopting simultaneous and alternating insider and outsider roles enabled me to collect and generate empirical materials. This inwards and outwards movement also enabled different perspectives and interpretations of the exchanges with participants (Van Maanen, 1988; Cunliffe & Karunanayake, 2013). I explain data analysis next.

2.5 Data analysis

The analysis took place in 7, more or less linear, steps as described below. Typical of qualitative research, there was much iteration between theory and data, some research questions revisited, and focus shifts with and within these steps but, ultimately, these are not helpful to include more formally as part of the detailed description in this thesis.

As an example of one important shift, this research initially started with an intended focus on materiality. In 2013, I wrote in the proposal (defended in October 2013): "When the Medisensor is sold, what is materialized in it will be projected, and outsiders (as well as insiders) will then make sense of and give sense to [its material properties], feeding back [for more sensemaking]" (Fachin, 2013b: 149). However, the production and selling of this Medisensor did not quite turn out as expected (see Chapter 3). As I found that I was collecting insufficient data to perform a rich study of the material aspects of sensemaking in identity formation, other avenues of exploration were opening up. (Indeed, for a few years this research project was about identity and materiality).

I see the steps described below in terms of a broader orientation, with some steps taking place in parallel, but fading in and fading out at their own pace as the research moved along. For example, step 2.5.1, "organizing the data" was ongoing until the end, but more intense in the first months to deal with the October 2008 – June 2012 backlog. Step 2 and Step 2.5.3, as well as Step 2.5.3 and 2.5.4, often overlapped in time, and so on and so forth. The description provided below should be seen as a guide that I set up to be followed that often required micro level back and forth iterations to account for emerging discoveries as well as happenings and "unhappenings" in the field.

2.5.1 Organizing the data

Data were organized into textual and non-textual material.

For textual materials, I first copied and pasted in Word files all the accumulated material (October 2008-June 2012) and added new data (mainly emails and shared

documents) as they came along (see Table 2.1 for a list of these materials). In January 2014 these Word files were transferred to the QDA qualitative data analysis software.

During the course of the fieldwork, I wrote the fieldnotes in a paper notebook, including quotes from conversations that were not recorded. I then transcribed the fieldnotes into Word documents with some additions to make these notes a somewhat more coherent narrative, along with my autoethnographic journal. Interviews, conversations, and meetings were also transcribed.

As Word documents, I summarized email threads (from February 21, 2011 to November 10, 2012) and meetings. These are tables with columns like title, participants, date, and summary, comments. These documents consist of 28 pages single-spaced page, font 11.

I kept non-textual materials in their original audio, visual, and audio-visual file formats (see Table 2.1 for a list).

2.5.2 Highlighting and open coding

The analysis of the material was carried out by type of material in chronological order (e.g. a blog in its entirety rather than jumping around among different sorts of data). In this phase, I highlighted, in yellow, keywords that appeared frequently and emblematic passages. I used red highlight for contradictions, tensions, or paradoxes (Poole & Van de Ven, 1989). This step was about "familiarizing oneself with the setting under study" (Alvesson & Karreman, 2007: 1270). Using the comments tool of Word, I did some open coding oriented towards how participants defined themselves and the organization. As mentioned previously, these analyses (from steps 2.5.2-4 mostly, but also step 2.5.5) also generated discussion topics and questions for the fieldwork.

2.5.3 Coding

In this step, considering the previously highlighted parts, I did some coding using the comments tool of Word, oriented around constructions of central, distinctiveness, and enduring aspects of the organization (see Chapter 1) – i.e., according to the categories of organizational identity as expressed in the literature. Here data was "mobilized as a critical dialogue partner" (Alvesson & Karreman, 2007: 1266). In this step I elaborated "first-order concepts" that were close to the type of language used by participants and elaborated within the framework of the research question (Van Maanen, 1979: 541).

2.5.4 Interpreting and merging codes into broader themes

At this stage, my focus was on analysing and merging the codes into broader themes, moving the analysis towards the framework of the research. These "second-order concepts" helped "explain the patterning of first-order data" and "relationships among certain properties" (Van Maanen, 1979: 541). Indeed, having gone through all of the materials at least once (except, of course, data that were being continuously generated, I was able to get a more comprehensive picture and provide more generalizable categories for the dataset. This allowed concepts to emerge until relationships among themes and categories until there was high congruity between themes and categories.

2.5.5 Fine-grained analysis (zooming in)

As overall themes were identified and relationships became more "established," I engaged in a fine-grained analysis to further understand them. In a way, this is about reiterating steps 2.5.2, 2.5.3, and 2.5.4 in bits of data, now zooming in on the nuances. As I had gained considerable contextual background, I was able to proceed with this analysis of smaller bits of data (Fachin & Langley, forthcoming; Nicolini, 2009; Cooren,

2015). As this zooming in was planned from the outset, during steps 2.5.2-4, I had

indicated the stronger candidates for further in-depth analysis as I went along. In the

course of fieldwork and analysis of the material, I learned that collective discussions

about key organizational issues were conducted by email, and included a wider-range of

participants. I then selected five email threads, momentarily setting aside the bulk of the

data. Ann Langley participated in this stage. Different emails threads were used in data

analysis sessions at HEC Montreal and at the Faculty of Communication of the

University of Montreal (see more details in 2.6) Overall, this follows the same procedure

from steps 2.5.2-4 with about 15 single-spaced pages instead of hundreds of pages, i.e.,

and spending weeks with much less material.

2.5.6 Re-Coding (zooming out)

Since themes and codes from Step 2.5.5 were generated from a small sample of the

dataset, Step 2.5.6 applied these codes systematically to the whole dataset as a trial. I

imported the Word files in item 1.1 to QDA qualitative data analysis software to zoom

out (Nicolini, 2009). Based on the interrelationships and ramifications of the codes, new

categories also emerged in the process. This analysis includes data from February 2011

to January 2014and serves as the basis for Chapter 4.

2.5.7 Making new sense of the data based on a significant unexpected event (Chapter 5)

In April 2014, a turning point occurred: Technica split apart, a deviant event in this

study (Lincoln & Guba, 1985).

2.5.7.1 Fine-grained analysis of the split (similar to Step 2.5.5 – zooming in)

In this case, the data for fine-grained analysis was the crisis split, along with surrounding conversations.

2.5.7.2 Including literatures

As Alvesson and Karreman (2007: 1271-72; their terms) point out, an "unexpected finding" can only be considered a "candidate," so including new theories can "throw some new light on the phenomenon" (or prevent from reinventing the wheel). Step 2.5.7.1 suggested that new literatures be included.

2.5.7.3 Re-coding redux (zooming out)

Coding for Chapter 5 was based on the "result" or lack thereof of conversations in the whole dataset (emails and meetings), with one code for the entire conversation (i.e., one code for 1 for up to 60 single-spaced pages) instead of codes for relatively short passages and individualized statements (as in Chapter 4). The codes from Step 6 were virtually discarded. Codes were merged more or less as data were being coded.

2.5.8 Presenting the data

The data is presented in three separate chapters. Chapter 3 mobilizes all sources of data, as in the left column of Table 2.1 and is the most ethnographic component of the thesis, providing a broader picture of the entire data set. Chapters 4 and 5 zoom in on conversations and discursive exchanges that took place during the fieldwork. In these latter two chapters, the ethnographic material is used to provide sensitivity to context but materials like fieldnotes, interviews and autoethnographic notes are not shown directly.

The main difference between Chapters 4 and 5 is that Chapter 4 focuses on individual performances and collective micro-accomplishments while Chapter 5 focuses on the "results" (or lack thereof) of a larger set of collective interactions. While presenting different findings, patterns, and contributions, these articles have a common focus on theoretical rather than empirical generalization (Langley, 1999), as I further discuss next and in Chapter 6.

2.6 Trustworthiness

Here I present a list of strategies used to enhance trustworthiness. Limitations are discussed in Chapter 6.

- Prolonged engagement and persistent observation (Lincoln & Guba, 1985). I spent almost two years at the setting, speaking with a wide range of people and building relationships, besides observing online. This enabled trust, facilitating the co-construction of meanings, besides allowing me to select and focus on relevant issues in detail.

- Triangulation (Patton, 2002). Rather than corroborating findings for validity, I triangulated between different sources of data to provide a richer, more robust, and encompassing account (see "Thick description" below and Chapter 3). For example, I was able to analyse people's statements over time and in different media, with a particular interest in how they contrasted. Discrepancies that I identified informed topics of further inquiry with participants (see 2.4.3 and 2.4.4)

- Thick description (Lincoln & Guba, 1985; Geertz, 1973) and authenticity provided by being there (Golden-Biddle & Locke, 1993). Chapter 3 provides a rich description, with the use of all types of data, of the story of Technica, serving as a basis for zooming in on certain dimension in Chapters 4 and 5. Chapter 3 presents the context, history, setting, number of participants, key individuals, activities, hierarchies, significant events, patterns of interaction, and many other elements, to enhance broadening the findings (Boundary conditions are further discussed in Chapter 6)

- Peer-debriefing (Lincoln & Guba, 1985). Fine-grained analysis of selected email conversations was conducted with Ann Langley as well as at two data analysis sessions at HEC Montreal (about 5 participants each) and two data analysis sessions at the Faculty of Communication of the University of Montreal (about 10 participants each). Some interpretations of these data were also discussed with Jim Taylor, emeritus professor at the University of Montreal. Previous versions of articles in this thesis were presented in academic conferences and the feedback provided was considered.

- Emergent, opportunistic and purposeful sampling (Patton, 2002). I was interested in exploring organizational identity work by taking "advantage of whatever unfolds as it unfolds" in order "to take new opportunities during actual data collection" (Patton, 2002: 240). I focused on people who had an important, somewhat institutionalized, role (e.g. co-founder) and listened to many different voices (25 participants are shown in Chapter 3). Naturally-occurring data was a self-selective sampling. Here I note that the opportunity and ability to obtain a

great deal of rich naturally-occurring data prevented me from performing more semi-structured interviews which could have more systematically explored the perspective of each individual and potentially could have provided additional insights. The choice of Technica as a site is explained in 2.3.

- Reflexivity (Cunliffe, 2003; Cunliffe & Karunanayake, 2013) about my own assumptions in the process of inquiry was documented in an autoethnographic journal on the same evening that I did fieldwork (Emerson et al., 2011). These reflections were centred on myself and on my "uncensored" impressions of the field including how I could potentially be influencing participants. In hindsight, I see this journal as struggles with being both an insider and outsider in the course of the fieldwork.

2.7 Ethical considerations

This research was approved by the Comité d'éthique de la recherche (CER) at HEC Montréal. The first approval for August 2012-2013 was renewed annually until August 2016 including signed forms of consent to disclose the real name of the individual and the organization for interviews or observations. Sergei, the co-founder, also signed documents confirming I could use any of the online materials in this research (databases, forums, documents, etc.) which have access restricted to members only. I reinforced this through the email list when I explained the research and told participants "not [to] hesitate to contact me for anything relating (or not) to this research."

I have not experienced any participant having concerns about this research-other than some skepticism about the relevance of the research topic itself and the generation of theory from a single case study. No participant attempted to restrict or in any way influence what I would write in this research project or demonstrated a concern about being mentioned or that the organization could potentially be negatively portrayed in this research. While I did not engage in recordings without participants being aware of it, as an "insider" I recognize that I gained trust and therefore access to sensitive information that could potentially be harmful to some individual participants.

I am not however taking for granted that participants are automatically comfortable with this research (and some negative events that are reported in this thesis) because they have agreed to the project or because they have not manifested concerns about confidentiality to me directly. I understand that dropping from or attempting to "censor" a research project taking place in one's everyday working environment presents some difficulties in particular.

Thus, despite having the approval from CER to present real names, I am taking precautions. With few exceptions, I am anonymizing this research completely, based on the orientations of the "Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans."[18]

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[18] http://www.pre.ethics.gc.ca/pdf/eng/tcps2-2014/TCPS_2_FINAL_Web.pdf
Accessed March 8, 2016

3. An ethnographic story of stories: "In" and "out" of Technica from 2008 to 2014

This text is a thick description of the story of Technica. Since the empirical articles (Chapters 4 and 5) offer limited space, some important aspects of the story do not fully come to life. I take advantage of this space to present in more detail a chronologically ordered account of events in the life of the focal organization.

This story was crafted based on archival data (emails, blogs, sites, documents) from October 2008 to June 2012, and my physical presence in and around Technica from June 2012 to April 2014, mobilizing all the types of data that I amassed during the research (see Table 2.1), and some complementary post-April 2014 information based primarily on emails and websites (see Chapter 2 for more details).

Note that this remains *a* story not *the* story about Technica, and is actually one of the many stories I could tell. In short, this is my story about many people's stories, for the purposes of this thesis. Consider Table 3.1 as a kind of table of contents, a guide to the main events described.

Table 3.1 Technica's Timeline

Date	Event
3.1 Before Technica (? – February 2011)	
October 2008	Sergei launches his revolutionary blog/project
2009	Sergei and Tom work at L University's Physiology department
February-October	First concept, prototype, and testing results of Medisensor

2010	
3.2 The foundational days (February-June 2011)	
February 2011	Formation of Technica (Sergei, Tom, Pierre, Mike)
March 2011	Mike departs
May 2011	Pereskia Inc. (corporate façade) is formed
3.3 The start-up growth period (July 2011 –June 2012)	
November 2011- September 2012	Partnerships with four research laboratories to co-develop and test the Medisensor and other applications Awards with cash grants as well as funding to Technica through Pereskia Inc. as well as individual grants for some members
May 2012	An office/lab obtained at the Incubator Centre
3.4 The Open Value Network period (June 2012 – October 2013)	
June 2012	Fernando (me) enters the field
August 2012	System to reward contributions (VAS) with more formal and intense development (Joe joins)
October 2012- April 2014	Technicans (mostly Sergei) present Technica's business model in academic and public events
January 2013	Medisensor is redesigned (to a LED Medisensor)
April 2013	New Medisensor presents signal stability and sensitivity problems
May 2013	Nabil joins Yellow Box project developed
3.5 Harder times (October 2013 - April 2014)	
October 2013	"Logging campaign" for people to use the VAS – a failure Results of other grant applications (reject)

December 2013	First sale in history: Units from Yellow Box project ($1,400 in total)
	Crowdfunding campaign (by Sergei for Technica): $275 of expected target of $200,000
January- April 2014	Project RISE (an open hub) (failed)
3.6 The split (April 2014)	
April 2014	New grant obtained to finish up and sell the new Medisensor with labs ready to pay for it in June 2014
	Split
3.7 Epilogue (May - ?)	
May - ?	Repeat 3.2-3.6 a few times with Sergei, with less of 3.3

Besides a timeline, a list of dramatis personae appearing in this text may be helpful for reference, as in Table 3.2 below. People who are mentioned by participants but do not gain an actual voice in Chapter 3 are anonymized too but do not appear in Table 3.2.

Table 3.2 Dramatis Personae

Name	Role	Media[19]	Period of involvement
Sergei	Co-founder and full-time member	Online and offline	$3.1 – 3.7$
Pierre	Co-founder and full-time member	Online and offline	$3.2 – 3.6$
Tom	Co-founder and full-time member	Mostly offline	$3.1 – 3.6$
Mike	Co-founder (left after a dispute with Sergei about the business model)	Online and offline	3.2
Joshua	Full-time member (and almost-co-founder)	Online and offline	$3.2 – 3.6$
Nabil	Full-time member (business	Online and offline	$3.4.1 – 3.6$

---

[19] Those who are online only are not physically in or around the lab- they are based in another city or country.

	graduate working on management issues)		
George	Part-time member, 3D designer, and Sergei's brother	Online and offline	3.2 – 3.7
Martin	Full-time member (ultimately left for a paying job)	Online and offline	3.4.1
Joe	Full-time collaborator (developing "value accounting" software)	Online	3.4 – 3.7
Mary	Full-time collaborator (developing "value accounting" software)	Online	3.4 – 3.7
Nelson	Active affilliate (consultant)	Online	3.3 – 3.6
Kevin	Active affiliate (mentor)	Online	3.3 – 3.4 and 3.5.1
Bryan	Active affiliate (interested participant)	Online	3.4 – 3.6
Vincent	Active affiliate (R&D professional)	Online	3.3 – 3.6
Joseph	Full-time member, project manager	Offline	3.5 – 3.6
Occasional, recurring, sporadic or short-termed participation			
Well-known professor 1	Professor, one shot participation	Offline	3.4.1
Well-known professor 2	Professor, one shot participation	Offline	3.4.1
Mohammed	Part-time member, engineer	Mostly offline	3.4
Richard	Economist, one shot comment	Offline	3.4.0
Ulrich	Blogger in peer-to-peer and self-defined economist and artist	Online	3.5.0
Luc	Self-defined artist	Online	3.3 and 3.6
Tullius	Software programmer	Online	3.4.1
Mr. Bowman	Joshua's father, economics teacher	Offline	3.4-3.5
Jean-Claude	Master's student in management	Mostly offline	3.5.0
Jeanette	Representative at Local SME Centre	Online and offline	3.5.1
Guy	Participant at Project RISE	Offline	3.5.1
Josie	Neurology PhD student	Mostly online	3.5-3.6
Edson	Participant at Project RISE	Online and offline	3.5-3.6

3.1 Before Technica (? – February 2011)

It is not so obvious (and arguably irrelevant if it were even possible) to pinpoint exactly when Technica began as an organization. While the foundation date would appear to be a credible starting point, it would still convey the idea that an organization comes into being like a "Big Bang." Not only in Technica, but in all organizations, there is a lot going on before that. For the purposes of this story, then, while I may not go as far back as Sergei fleeing an Eastern European country when he was 14 years old to escape "government tyranny" and how this event influenced ideas about the venture (Sergei in field prospection interview, fieldnotes, June 2012), I will present two important "pre-foundational" orientations that are relevant to understand Technica's history.

One side resonates as a rather typical entrepreneurial story. Two guys were working together for "someone else" and eventually decided to start their own business. The two guys in this case are Tom and Sergei, researchers at the Physiology department at L University in 2009. Dissatisfied with the medical instruments that they had at their disposal to measure muscular contraction in their lab at L University, Sergei and Tom started developing a new medical sensor. According to the timeline on Technica's website, [20] the prototype of this Medisensor was ready in September 2010 with testing results "better than expected" in October 2010. The potential to bring it to market propelled the formation of (what would later be called) Technica. So, typical of many entrepreneurial stories, Tom and Sergei started their endeavor based on an opportunity that they had identified.

---

[20] Note that it is primarily Sergei who edits Technica's website. Information presented there is not to be taken as being agreed-upon by all members (somewhat like the website of most organizations).

But there is also another side to the story. Consider the introductory page of Sergei's

blog, which he had started in October 2008.

> The classical levers of power are melting in the hands of your masters. Your masters are paralyzed. Your chains are reduced to dust. Get up and seize your opportunity to climb another step towards freedom and self-determination, as you bravely did on many occasions in the past!

Since at least 2008, Sergei has been engaged in activities oriented towards a

"revolution" from capitalism to a "new economy." His blogging activity is replete with

posts about "predatory commercial practices" (April, 13, 2009) "tyrannical

governments" (February 22, 2010; October 23, 2010; February 5, 2011; March 12, 2011)

"the public against a corporation" (May 8, 2010); and "the collapse of the patent system"

(December 9, 2010) besides "how to fix" the "economical (sic) crisis in the US" (April 22,

2010). In addition, Sergei is actively engaged in social movements offline: he

participated in the Occupy Movement in 2011 and in local social movements in Quebec,

besides the "bloody revolution" in Eastern European country (P2P blog; Sergei as a

guest speaker the course I taught at L University in Winter 2013; Sergei's Google+ and

Facebook profiles; interview with Sergei, June 2012). As he writes, his blog is only part

of a broader project.

> The scope of the P2P Project is to drive the multitude social movement.
>
> In other words, we try to understand how the new technology is changing the power structure in modern societies, we build a new vision for a brighter future, and we propose a path towards this future, whereby the potential introduced by the new technology is actualized to the advantage of the multitude.
>
> Change is clearly happening in the natural direction of the emancipation of masses, a trend which can be clearly recognized throughout history. Major institutions will be greatly transformed in the near future. Our goal is to channel the change into a peaceful, incremental and constructive revolution.

We also propose new methods and tools, to help individuals and groups, all around the world, in their daily struggle against injustice and economical inequality.

In another more personal blog,[21] Sergei makes more explicit links with Technica. Defining Technica as a "pilot project for the future," he details his struggles in driving his partners away from corporate pursuits that "exploit human capacity," as we will see next.

3.2 The foundational days (February-June 2011)

The more formal foundation date of Technica appears as February, 12, 2011 in Technica's timeline on the website[22] . The founders were Tom and Sergei, as we have seen above, joined by Pierre (radiobiologist) and Mike (business consultant). Although some of these individuals already knew each other relatively well, they did not yet know each other as business partners. We can see this in the first exchange of emails sent right after an evening meeting, in February 21, 2011[23].

> Sergei
>
> Hi all,
>
> We had a very, very interesting meeting this evening. We basically went through the same stuff as in the last meeting with Pierre. After a few boring minutes of technical discussion we started talking about the business aspect [...] We already have a product that can be sold on the international market. We already have a network of potential users/customers.
>
> This tiny group already concentrates a great deal of brain power. We also have good connections. The future of this project looks very bright to me!

---

[21] To my knowledge, Sergei has three blogs in total (besides a blog in Technica's website). Another blog that I refer to less in this story is about "epistemology, logic, philosophy of mind, and philosophy of language" where Sergei argues for "the appropriate type of ontology, metaphysics, and logic for the physical object under study."

[22] There is no clear, uniform, and consensual agreement about the exact day of foundation and in some sources it also appears to have occurred in January. While this information is not of crucial importance, it already presages the "adaptive and emergent structure" (Technica's website) that we are about to see.

[23] These are the earliest email exchanges I have access to.

Pierre

Excellent! Having already a product to sell will give power to the business plan!

Mike

Good Morning,

 I am very excited about this project. I was thinking we should get started on:

- Create a Database:

- a list of people who send you samples (get as much information as possible).

- labs and/or associations you deal with.

- university/hospital contacts

- create a focus group (product testing - feedback from users) - later on testimonials/publications

- user/agreements

- pricing/market strategy

These are just a few things I started thing about. Let me know what you think.

Tom

I will put the information about people Vladimir collaborates with and also those who I know from Country X and Country Y. Guys, at least one more potential name for our group from each of you...

From the outset, we see a great deal of excitement about this venture, though for different reasons from each member. Though not pronounced strongly in the above exchange, we can see Sergei diverging from others in terms of how far advanced the endeavor is, and by favoring what he calls the "business aspect" of it.

It did not take long for Sergei's ideological-orientation to appear more boldly in Technica. In March, Sergei announced by email that he had "transferred some web

pages I had on my personal website over to the Technica website." This content included

Google Slides presentations about "movements in economics" with topics such as

"industrial revolution," "socialist revolution," "biotech revolution", with a section on

how Technica is "designed for the transition" towards the "new economy." This included

representations of the changes in the environment, in dichotomous terms, like this one

in Figure 3.1.

Figure 3.1: Changes in organizing in an "old" to a "new" economy, according to Sergei
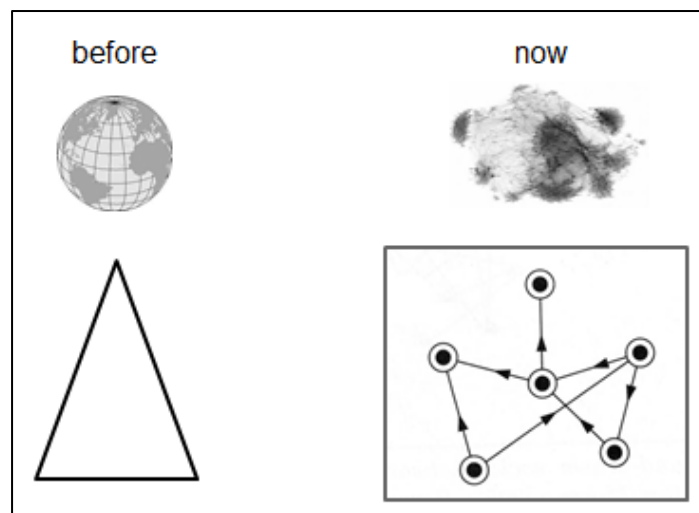
Through email messages, one of Sergei's leitmotifs was to tell his partners that "if we are

to stay as a group we need to move away from the corporate model." He outlined some

priorities for the venture. "I am not talking about academic interest in our sensor, but in

our business model, economical philosophy." His emails became increasingly

ideologically flavored, and towards the end of March we can see more vivid, email titles

such as "Open enterprise, open collaboration, sharing, THE NEW ECONOMY"

appearing more frequently.

His partners, however, did not engage in these more abstract types of conversations and rarely responded. When they did, they provided succinct answers, often with some resistance to Sergei's ideas and to the discussion itself (see *Disengaging* in Chapter 5for more details). Mike, for example, in a two-line email, referred to Sergei's ideas as an "interesting concept" but argued for a "balance between traditional business models and new models such as this."

Sergei's orientation was not towards striking a balance but convincing his partners of his ideas. Entries in Sergei's personal blog later in March included accounts of his struggles with his partners, with posts entitled "Selling the open idea: part 1" followed by "part 2," and "What is an Open Enterprise and why we should adopt it?" In the latter, Sergei talked about a meeting in which he explained how "visions diverged at an even deeper level than I thought" and how his "partners are stuck in the old economical paradigm (the one operating within the pre-Internet world)." Sergei also told us in the blog how, assuming his partners would see him as "naïve" "idealistic," and "altruistic," he introduced the "distinction between altruism and enlightened self-interest" to counter such suggestions.

For the first three months, work towards a consensus surrounding the business model did not advance significantly. Sergei talked in his blog about how he would have chosen his "partners based on their level of acceptance of the model," but one "doesn't always have this choice." Since, as Sergei explained, he "cannot form a group according to my likings, **I need to educate and to convince.**" This new strategy involved further understanding his partner's perspectives. As Sergei explained, this was about "understanding […] that my partners are somewhat accepting the idea that the world is

changing in a fundamental way" but that they "want to make money and they think that they are taking an unnecessary risk if they embark on a venture that they do not understand."

Sergei's efforts included talking to professor Arcand from University Q about the matter. Sergei recounted in his blog that "in a spark of genius, he [Arcand] made me realize that the proposition (to form an open enterprise) is a big piece to swallow." Sergei "concluded that I need to put forward a simple business plan, one that promises immediate revenue and that bears the seed of an open enterprise." With another meeting about it scheduled in the days to come, Sergei informed his blog readers to "stay tuned for the results."

The deal-breaking issue at this point was the legal form the organization would take. While Tom, Pierre, and Mike proposed incorporating Technica, Sergei argued that Technica "cannot be a legal entity. All existing legal forms are incompatible with the concept of a global open and decentralized network. Consider it as an open space, an infrastructure." Adopting a similar language to Sergei's, Tom talked about a legal form as a "a window between new open social economics of Technica and old unsociable economics of the 'old school' business world [...] without which Technica is naked." As Tom explains:

> Tell me, what kind of forms can be signed between Technica and University L? Technica does not exist for L. It's just an informal club for good guys, - nobody at University L is going to take it seriously. It [a legal form] is the only way to mediate the relationships between Technica and University L, between Technica and Company C, between Technica and Institution I, between Technica and [potential client] E, etc.

Sergei's efforts to convince his partners failed, and Mike "resigned over my [Sergei's] reaction."

> Despite all this preparation, when time came to decide on a legal form for our enterprise my partners unanimously voted for the f... corporation! I obviously objected. Luckily I am the technical person behind our prototype, otherwise my opinion would not even count. So we went back to the drawing board. [...] I simply told them that the founder of the P2P Project CANNOT run a corporation. I tried to make them understand that this choice is beyond my limits. (Sergei's DN blog, March 23, 2011)

In his blog, Sergei said that "these discussions about business models and legal forms were kind of exhausting for all of us [...] but we still need to define a clear business model and based on that, a legal form" (To Dos, March 24, 2011). There was still an impasse about the legal form.

With the departure of Mike, who according to Sergei was the one who was most "strongly advocating for the corporation," support for Sergei's proposal started to increase. Sergei started to demonstrate some more optimism when he talked about how Tom now "received my model with neutrality" and how Pierre was "seeking to improve it."

After some more "heated discussion on these issues," Sergei went with Tom "out to a country place, had a BBQ outside [...] drunk a bottle of Vodka together." "By magic, we arrived at compromise," Sergei reported by email." Who said that alcohol doesn't work?" The (passive) audience for this email message, besides Tom and Pierre, included George (Sergei's brother) and a few others who at the time were demonstrating interest in joining Technica (but did not end up joining).

Sergei detailed this compromise with Tom about the legal form.

We decided to create a separate company (a classical structure), call it X[24] for now, which will take under it the Medisensor and everything that comes with it. Technica WILL REMAIN an open and decentralized value network, composed of individuals and organizations. X will be a member of Technica. I will formally dissociate myself from X, and I will be an individual member of Technica.

While Sergei argued that Technica would remain untouched by this "classical structure," he did not present the operationalizing of this solution as quite so straightforward.

The legal form of X is still undetermined. Tom will definitely be part of X, as well as Pierre.

X will be a fully independent and autonomous entity, as any other member of Technica, BUT it will commit to act as an important contributor to Technica. Moreover, X will be able to get some funding as a classical entity, which will in turn have an impact of the development of the whole Technica community.

Some things are still unclear at this stage. For example, is the University L project with the radial sensor going under X as well? I tend to see the L University lab and PERSON as members of Technica open environment, and everything that gets created within the shared space, within Technica, as a product of Technica, i.e. belonging to all members that contribute to this product.

Tomorrow we will hold a meeting to decide on what goes under X and what stays under Technica. ("IMPORTANT: Restructuring," April-May 2011)

"X" which would very shortly thereafter be called "Titan Inc.", was finally and officially called "Pereskia Inc." on May 15, 2011, when Pierre announced "it's my great pleasure to announce to everyone the official birth of Pereskia Inc., a corporation that is an active member of Technica!" Sergei did not miss the opportunity to make an "ontology note" (his term). "Technica is a space, NOT as an organization. Pereskia Inc. engages with other members of Technica […] "it is improper to say that Pereskia Inc. engages with TECHNICA." Sergei added at this point that "Technica should NOT have a strict policy on total openness." In this way, then, we can see how Sergei's view was not as extreme as we had seen in the outset, likely favoring some agreements to be made.

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[24] "X" is in the original. I did not anonymize it and did not see much of a need for it (perhaps call it "Y"?)

Tom explained the creation of this new legal entity as follows.

> Pereskia Inc., if you want, - is Technica's mouth that Technica uses to communicate with different hierarchical and highly bureaucratized entities. Without Pereskia Inc., Technica is mute, it CAN NOT sell anything because people from L University, or people from other institutions/companies, even from [incubator](Lane), - they simply won't hear, won't understand it ("Collaborating with L University" June, 2011).[25]

In a shared Google document, a graphic representation placed Pereskia Inc. in between the market and the Technica community.

Figure 3.2 : Pereskia Inc. the intermediary (exchange firm) between the Technica community and the market[26]
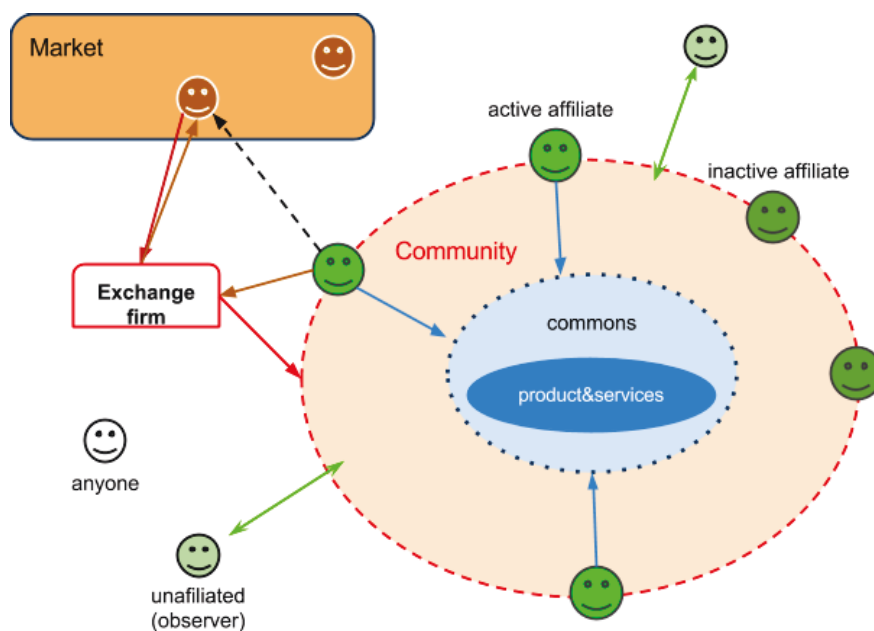
[25] In fieldnotes October 2012, in reference to the Pereskin Inc. and Technica relationship, Tom talked about Technica as something you "whisper" and Pereskia something you "shout."
[26] (Source: Technica business model 0.1 document, first published March 2011 and last modified June 2012)

So, as we can see, the compromise was based on a hybrid model, [27] contemplating both sides. On the one hand, Pereskia Inc. as a corporate front would serve as an interface or exchange firm. This enabled Technica, which did not itself become a legal entity, to interact with the environment, including the possibility to get funding, rent a place, and apply for awards ("Just to make it clear," June 2011). In short, Pereskia Inc. could have access to the legitimacy and resources that would benefit Technica.

However, as Sergei told us in his blog, this agreement did not imply an ideological convergence among co-founders.

> I still feel that my two remaining partners are not fully convinced that "open" is the way to go, but they are now moving towards my vision simply because of my central position within the venture, as the main technical person behind our prototype. **I do NOT consider this a victory until my partners are not fully convinced** that the open enterprise is economically viable, that it offers huge opportunities, and that it promises us all a better future. (Sergei in DN blog, emphasis added)

In the next phase, however, with the formation of Pereskia Inc., the topics of discussion (including Sergei's) moved from ideological to more pragmatic aspects of the venture, as we will see next.

3.3 The start-up growth period (July 2011 – June 2012)

In this period, Technica could be considered a typical start-up. With the formation of Pereskia Inc. as the corporate façade, in institutional terms, Technica was now able to interact with the environment-or, to use Tom's terms, "exist." This was a change from

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[27] The term "hybrid model" has been commonly applied where "open-like" organizations use a corporate front, such as a foundation or corporation, to conduct business. In other words, Sergei and Tom did not invent or originate this model over a bottle of vodka.

the dynamics of the previous period, which were marked by Sergei attempting to "sell" an ideology.

This period is marked by startup like activities, such as seeking grants, awards, and clients, and getting a lab or office. Sergei's messages were less ideologically oriented. As he explained by email "We, Pierre and I, decided to put most of our energy in 1) going after some grants (a process already under way under Pereskia Inc.), and 2) selling at least 3 Medisensors through our network by the end of the year (very feasible!)." In this period, we can see the ideological aspects of the venture moving towards the background (or latency), as co-founders coordinated and achieved a series of more tangible benefits for Technica.

This period involved making sense and using Pereskia Inc. in conjunction with Technica. For Sergei, Pereskia Inc. would enable Technica "to get access to free money [grants] and be able to plug TECHNICA, an unconventional organization, into the present-old-economy. Pereskia Inc. is getting ready to apply for grants, and a portion of these grants will flow back to within Technica." (Sergei in "On free money and how to distribute them). Besides, Sergei separated Technica into two tracks.

> There are 2 innovation tracks here. If I put my engineer hat on I would say that innovation in optical sensing is our thing. If I put my revolutionary hat on I would say that building a new economy is our thing. Taking the hats off, I would say they are both crucial.

While Sergei suggested that conformance to established institutions and conventions could fuel the revolution project, discussions about the future of the economy shifted to more concrete business strategies. Consider this discussion about tax credits and how to operationalize Technica. Sergei argued that to benefit from it, "the entity applying for

R&D tax credits must be a classical entity [...] and TECHNICA is not a box/corporation, in fact it is not even a legal entity." Tom responded that "this is exactly why we created Pereskia Inc. Here we can follow the 'masking' strategy when dealing with those legal old paradigm entities and people who don't want to recognize Technica as it is. Pereskia Inc. will 'disguise' Technica, collect all the benefits and then we distribute them within Technica." Pierre however highlighted that "in our case, it's not easy to get money back since we don't pay ourselves but there are some legal tricks to try anyway." This collaboration among the co-founders can be found on the email list that was available for all Technica members to see, and their organizing activity was becoming somewhat more synchronized.

In this period, we can also see some new people were joining Technica, some of them becoming somewhat stable members. Joshua, an engineer by training, could almost be seen as a co-founder, and his Technica business card stated so[28]. He found out about Technica surfing on the web and figured that he could do in Technica "what I was doing for fun in my garage anyways" (fieldnotes). Joshua's garage was Technica's first lab, and photos of it were used for grant applications.

Other new affiliates of this period took on influential roles as mentor or consultant. These people were not based in Montreal and had not met or had limited offline interactions with Technicans. Kevin was involved with community development in local economies in Country A and had demonstrated interest in collaborating on the business model development as well as sensor applications for his own projects (Sergei, Kevin,

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[28] From the fieldnotes: "each member had their own personalized [business] card, with their own colors, basically just the logo was uniform."

and me on Google Hangout[29]). Kevin was more experienced in alternative business models and was considered by Sergei to be "injecting wisdom into the network." Kevin often participated in the email list in this period and had regular talks with Sergei, such as a "hangout (G+) with Kevin the other day where we were trying to solve other network-to-network issues."

Nelson, a business consultant, had contacted Technica in July 2011:

> I am very interested in capturing and measuring value, value equations, dimensions of value and value spaces (roughly your 'open value network'), and would be very interested in your organization as a 'living lab' for value exchange experiments. I came across you through the XYZ list. Will likely see you at XYZ. [I am] familiar with Professor Arcand [an acquaintance of Sergei]

From earlier on, we can see how Nelson not only demonstrated an interest in "open systems" but also soon started posing questions like "what does becoming a member mean?" Like Kevin, Nelson also exerted influence. For example, in July 2011 Sergei agreed with Nelson's suggestions about the "role chart" and in October 2011, Sergei explained "after a discussion with Nelson," that he was "convinced that roles should be emergent." This influence continued throughout Technica's history. For example, in October 2012 Sergei noted how he "can't put it better than Nelson" and promoted efforts to get "very close to Nelson's opinion." (See more on Nelson in Chapter 4. For a discussion on Patenting (or not), see Chapter 5.)

During this period, we start to see a rather dynamic flow, inwards and outwards, of individuals. The entry barriers were virtually non-existent. On Technica's website, one signed a form on the "contact us" page which automatically included the user as an affiliate, and there were other options where the user could check off "Join Technica as

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[29] Google Hangout is like Skype.

an affiliate." Considering the virtually existent entry barriers in which one signs a form

in the contact us page and is included as an affiliate, one can check "join Technica as an

affiliate" among other options, some people contacted (and hence automatically

"joined") Technica. The concerns Vincent raised by email in July 2011 are rather

common throughout Technica's history:

> I have recently decided to join TECHNICA, but I have to say that I do not know exactly what I am getting into. As TECHNICA is involved in fiber sensors, I thought that maybe I could provide some help. But it is difficult for me to see exactly how it will work out. I am more than happy to share thoughts, participate in discussions, make comments and give advices based on my experience.

Vincent added that he could see that he had skills that could be helpful, but has some

difficulty in connecting them to Technica. Also, for Vincent, the "what's in it for me" part

is not clear.

> At the end of the day, everybody is looking for some kind of benefit from any kind of enterprise. And for the moment, I do not know what that benefit of joining TECHNICA will be for me. I do not know either what being part of TECHNICA will require from me....

It is not clear whether Sergei addressed the concern:

> Let me begin by saying that TECHNICA is NOT just a fun club, it's not a gift economy like Wikipedia. Our goal is to generate revenue. But it's not just about money, because not every type of value is reducible to a monetary equivalent. This is why we call TECHNICA a value system, which means that we allow all value to flow freely within the network, and this is done by establishing a good collaborative environment and trust between participants.

As the discussion went on, Sergei's broad and abstract responses didn't seem to address

Vincent's concerns. Sergei then winds up, transferring the burden of defining the

organization and the roles to new members.

> It's up to every member to find creative ways to extract value from TECHNICA (a community), in a sustainable way, preserving this collaborative environment and

its accumulated tangible and non-tangible assets, which is in fact beneficial to all of us.

And the conversation ended there, with Sergei's explanation about how every member should be autonomous to help create a greater good.

In April 2012, Sergei circulated a questionnaire to which 6 individuals responded with their motivations, the value they were seeking, and how they could contribute to Technica. Under the question of value sought, Pierre answered

1) financial revenue with
2) no boss except the market
3) in an ethical way (exploiting no one)
4) in a business area related to science & technology, innovation, human health, quality food (and wine)
5) in a venture that sells something valuable to the customer, not in an entity that relies only on grants, because you can fool a grant donor, you can't fool the market (except with a big communication/marketing budget) but see point 3
6) learning how to innovate fast. Bringing faster innovation to market - and here, I have been recently convinced that open-innovation is the best way to succeed. I am now working to have a concrete result (the Medisensor) to show to everyone and learn from this case.
7) being part of a fantastic network connected to innovation (we put together the best R&D labs in Montreal, and this is only a beginning, and they are other branches (Ohio is one of them)) and a network able to sell (this will have to show results, soon I guess)
8) let me think, I am sure there much more...back tomorrow.

Pierre also talked about how he could contribute to the Medisensor project with "1) time time time 2) some space (more space in summer time on the gallery) 3) local network 4)...let me think, I am sure there much more...back tomorrow."

Joshua shared with Pierre the idea of "Networking" yet defines it differently, as "access to high-tech knowledge (human capital), access to new clients (design contracts), an excuse to make circuits, financial revenue, creating open source value." Joshua's forms of contribution also differ as he proposes to

build capital (my lab and all its equipment) social capital (attempting to lure other fellow engineers into joining this project) personal capital (40hours a week of my time, skills as an electrical/electronics engineer, crazy ideas as a visionary/futurist) Most importantly helping Technica see outside the bio medical research fields.

Tom however was seeking for

    1)   inventive spirit implementation, recognition

2) desire to make a group of new highly innovative and adoptable products for scientific, medical and other industries; unification and standardization of different measurements and scientific data by means of ubiquitous adoption of the «Medisensor» technology and products based on it

3) sizable financial revenue

Tom argued to contribute as "co-inventor of the technology, co-developer and co-tester of the first «Medisensor» prototype co-author of the «Medisensor» brand name; logo designer" and "providing expertise in biophysical and physiological components of the «Medisensor» project; providing various information from the academic world, personal contacts for obtaining some minor supplies and materials. He also mentioned "finding collaborators and clients" and "presenting and carrying on negotiations with potential collaborators, clients and official representatives."

Based on the above data, Pierre, Tom and Joshua were presenting similar priorities ("innovation" and "revenue"), but also more indirectly ("networking") or in passing ("visionary/futurist") related to Sergei's ideological orientation. Regardless of their scope of agreement, or how much they would complement each other, this period was of many accomplishments, as we can see below.

3.3.1 Important accomplishments

There were a series of overlapping types of accomplishments during this period. I present them not in chronological order but in thematic categories, as my objective is to highlight *what* happened rather than exactly *when* it happened.

- *Partnerships with different research laboratories (November 2011 – August 2012).* In November 2011 Technicans, were able to co-develop and test the Medisensor at Local Research Institute, with Dr. Corey Tremblay. In January 2012, co-developing work on the Medisensor was established with Dr Israel Laden, from Quebec University Hospital. This professor would test and publish results from the Medisensor. In March 2012, intermediated by Tom, another similar agreement about the Medisensor was concluded with Dr. Stevens from European University. With Jorgen Malmsten, in August, 2012, Technicans started a collaboration to develop new sensitive fibers with professors of V University.

- *Awards with cash grants and funding (March 2012 –September 2012)* obtained through Pereskia Inc. for Technica. Among the most important prizes, Pereskia Inc. won the first prize at the Social entrepreneurship competition (city), first prize at Quebec entrepreneurship competition (provincial), Montreal foundation prize (city), and was semi-finalist at the [Corporation] Montreal Competition (an average award of $10,000 for these prizes). In addition, Sergei, George, and Joshua were able to obtain individual grants for themselves, with an average of $20,000 per year.

- *Relationships with potential clients (August 2012 -)* being developed. Before Pereskia Inc. was established, the potential of selling to some companies appeared inconceivable. With a legitimate and recognizable entity, some clients could start

taking them seriously. These included important players such as the Canadian XYZ

Agency, and X, Y, Z clients as promising opportunities.

- *An office/lab (May 2012 -)*, in the Incubator Centre, was made possible through

  Pereskia Inc., paying rent of $500 per month. When I started the fieldwork in June

  2012, Technicans had recently moved to this new space. Before then, they did not

  have a physical fixed space, and were working in their garages, universities, and

  through the internet.

With Pereskia Inc. as a familiar face, Technica was able to grow and gather benefits,

funding and awards in particular. These accomplishments were facilitated by having

Pereskia Inc. as a public face. Yet, as Sergei explained at the end of this period, this

"double game" generates confusion about what Technica was about.

> We always had these two innovation tracks going in parallel and I know that it gets
> confusing for people outside our network. Se we need to find a way to be able to
> address those who are interested in TECHNICA as a new pattern of creation and
> production, and those who are just interested in optical sensing technology.

Indeed, what we see here is that at the level of discourse (website and other forms of

communication) Technica still maintains the same rather extreme claims of revolution,

whereas at the level of practice we can see a fairly traditional start-up with activities of

conformity with established institutions. We see how this plays out next.

3.4 The Open Value Network period[30] (June 2012 – October 2013)

"This is not Technica," Sergei told me, in October, 11, 2012 in a reference about the "startup mode" and the instrumental focus of the shorter term period 3.3. He also told me later that day that "Technica is about making history, not sensors." He told me how a "focus on profits would ruin" the vision and "kill the network" as he still suspected that the other Technicans ("likely referring to Tom, Pierre, and Joshua," fieldnotes) "would make a lot of concessions for a million dollars." Sergei however would be "bored" if he made "a million dollars" from selling the Medisensor with a patent. His approach was instead to have "little animals biting the dinosaur to get what the dinosaur is eating [rather than going after the food directly]." While Sergei was "happy that this is the right direction" he talked about how Technica was becoming a "real network, and we can now start thinking about leveraging this." He voiced similar thoughts when he wrote an email to the community:

> We are now in a classic startup mode, which confuses us... and makes us default back into that startup state of mind/mentality. TECHNICA is still an embryo of a value network, it has the potential to evolve into one. It already contains some mechanisms and a good portion of the DNA of a value network. But it is not one yet.

In this period, after a year of startup-like activities during which the ideological project was latent, the ideology championed by Sergei resurfaced more strongly.

This stronger ideological orientation came out quite explicitly in the first page of Technica's website in June 2012.

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[30] This is the period that I joined the field. I consider it a coincidence that my fieldwork started with a new phase, but maybe it wasn't, as it would not have been easy to place myself somewhere in the middle of a phase. In any case, it was an important marker for this phase that they had recently moved to an office at the Incubator centre.

> We are reprogramming the global economy
>
> We are revolutionizing the sensing technology
>
> We design open sensing and sense-making solutions
>
> This is about the p2p economy, commons-based peer-production

The accomplishments of the earlier phase came along with a lot of buzz, stimulating curiosity concerning Technica's business model. While this doctoral thesis was the first sign of a more formal academic interest in their business model (June 2012), professors in two other Quebec universities did research on and eventually published articles and case studies about Technica. Technica was for example the case study for an international case competition in which graduate students from eight major universities around the world studied Technica and proposed courses of actions (May 2013). Technicans were also invited to present their model at various academic events, with a well-known Professor in innovation talking about being "impressed" with their model in a three-hour event dedicated exclusively to Technica at C University.

Some faculty members adopted a role that was more partner than researcher. This consisted of providing direct guidance in business activities, co-writing grant applications, participating in meetings with government agencies, providing contacts, and working out diverse forms of partnerships with the academic and public sectors.

These positive results and social validation were paralleled by more convergence among co-founders. Tom, who had been critical or at least skeptical of Sergei's ideas, now talked in a semi-structured interview about a peer-to-peer structure as a "way to reduce the cost of the final product." Tom talked about corporate practices like patents, a need that would be obviated when "you are protected by the know-how." "A patent," he

explained, "does not really protect anything because there are so many ways to overcome it. If someone steals your technology, you do what? You sue them?" Tom concluded, noting that it "does not make sense [that] patent agents are much richer than inventors," yet he considered that "patents are a formality that we have to follow."

While Tom mainly approached the benefits of open source from a more pragmatic standpoint (than Sergei), he deplored that "the world is less and less what people would like to see" and that "we're all going down to hell with the current system." For him, "Technica is an alternative way to do things in a practical way," and he made a drawing of it for me.

Figure 3.3: Technica vs. mainstream: "heaven" or "hell," according to Tom
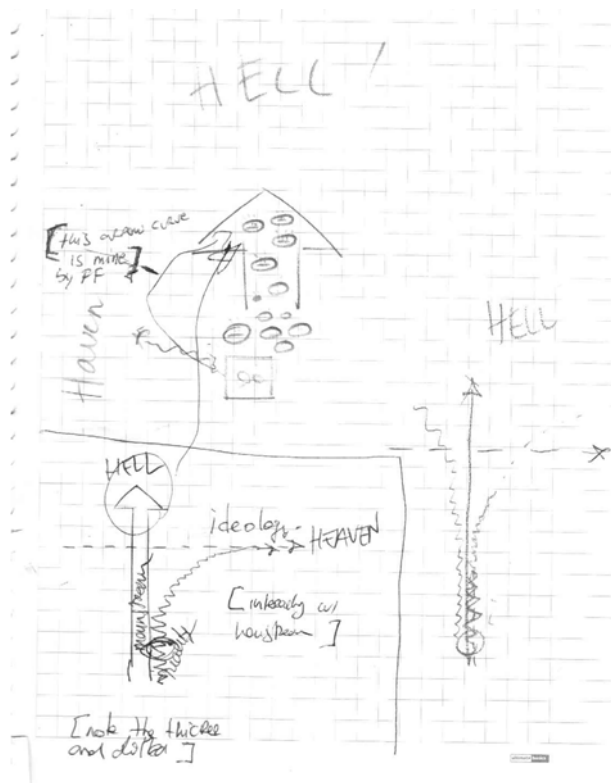
Not only Tom, but also Pierre was more aligned with Sergei. Yet Pierre adopted a more cautious position. In a semi-structured interview,[31] talking about how Technica is "still small in size and supported by grants so tensions don't emerge," Pierre adopted a rather exploratory position about the future while explaining that "Technica is much more organized and civilized than I thought it would be." When I asked about making compromises, like having a patent, he said:

> I don't know how it is going to be done. R&D is pretty long, and we might need to pursue a patent because we may not be able to innovate fast enough, and I don't' know how we are going to do it. It [patenting] goes against the ideology. [....] So, for the time being, we are sweeping it under the carpet, as we say it here, we have not yet solved the issue.

Pierre suggested some taken-for-grantedness (or conformity) to a shared ideology, and talked about figuring out how such ideology can be worked out in practice. Without providing much of a solution to the problem, he expressed interest in having "a community that would include not only technicians but academics like yourself" to help find a way.

Indeed, Pierre took the idea that strategies might be emergent quite seriously. When asked about how their informal structure would allow them to handle sales and distribute revenue, his reply was:

> I don't know, I don't even talk about it, I am just waiting to see. When we sell something, we will have some money to distribute, and I want to see how it is going to work. [...] I don't want to set up too many rules in advance [for distributing money], but Sergei is right, when the money comes in, we need rules, or everybody will want the money and it will be a catastrophe. So for sharing money, we need rules. People change their opinions when money comes in.

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[31] This interview was conducted in French. I translated the parts that appear in this text.

As we can see, Pierre did not present a plan when asked about how their informal and unconventional structure would be able to handle sales and revenue distribution when they exit the grant mode. Pierre was also confident that money would come in, and during this period did not voice concerns about the possibility of money *not* coming in (and how people would change their opinions then). The problem, for him, was how to distribute the money. For this, he agreed with Sergei that there should be a set of rules, but did not indicate what these rules would look like.

Note that besides demonstrating optimism and even certainty that there would be money to share, Pierre argued that it is "my job to make the organization survive [financially) for the next few years. That is my role. Sergei is doing the vision and optical technology. Each one has each one's activities. And that's perfect." He further explained his convergence with Sergei.

> Sergei has evolved, he saw the new economy and Technica and nothing in between. I see this as really noble, perfect, but too risky. We are not in the new economy. So Pereskia Inc. is an intermediary. Sergei did not want to talk about transition, he was already 10 years ahead. And I think this is a good thing. I think that it is the perfect match, it is good to have Sergei focused on the vision.

As Pierre explained, this convergence has some mutuality: not only has he (Pierre) changed, but also Sergei has adapted in some ways to the present circumstances. Considering his description of complementarity, I asked if it would not have been better to work with like-minded partners. His response:

> Two Pierres wouldn't work. I would have gone to a boring classic corporation. With a short-term view, but what about the future? I didn't want that. I didn't know how to do it. Sergei came in with his revolutionary vision, but with a sustainable way. I was afraid we would jump in too quickly to the final vision and be stolen by anybody: we are small, we have no notoriety, we have not sold anything. Sergei is an idealist who wants economic success. He wants a model that has an economic

future. This is a great difference from tons of models like Occupy that would never work, or hippies that want to live in the woods and just eat what they produce. You can't build a society that way.

Pierre more than agreed with Sergei and considered the pragmatic aspects of his ideas; he demonstrated admiration for him. I asked whether Technica could eventually become like a corporation, considering that some compromises may need to be made along the way. His response:

> This is why Sergei is a watchdog [for the vision], and that's what we need. He says: 'hey you aren't transparent for this, for that.' Because we have corporate reflexes. It amazes me how he doesn't have that, it's like he managed to reset his brain [laughs]. It's incredible.

In this way, after this series of accomplishments, Tom, Sergei, and Pierre were converging on a series of important issues for the venture. While Sergei had a more articulated and rather detailed plan from the outset, Tom was more oriented towards conformity (see above, "a formality that we have to follow") and Pierre was in a more exploratory mode (see above, "I am just waiting to see"). The venture was expected to grow exponentially (Technica milestones document), and the co-founders agreed on the need for more formality when new members join, to coordinate generating and distributing revenue.

3.4.1 Peer-to-peer infrastructure development

> It is time for us to bite the bullet. Our projects are becoming complex, and if we don't solve the value accounting problem and put a sound value exchange system in place we'll risk collapse (Sergei)

This value accounting problem Sergei refers to contemplates "peer-to-peer coordinating mechanisms" of distributing value. This infrastructure or set of practices would support a set of ideological principles towards which co-founders had demonstrated agreement. Technica had a horizontal structure, without boss or salaries, so Technicans share the

coordination "to log their contributions, to evaluate them, and to redistribute revenue" based on "peer-to-peer assessment." In other words, this "constitutes a contribution-based reward mechanism, which redistributes all revenues according to everyone's contribution to projects."

So far, with 4-5 logging members, value-accounting had been done rather informally using Google spreadsheets. People logged in their times in these spreadsheets for future use "when they figure out what to do with it" (fieldnotes). However, this method was considered insufficient to support growth for an estimated "5000 affiliates" by 2015 (140 in 2013 and 1120 in 2014) as the "model spreads and different independent networks coaless (sic) into super-networks, fractal structures. This growth phenomenon depends on the level of infrastructure development, and on the legal infrastructure in place" (Technica Milestones document).

Discussions about measuring contributions were a matter of intense and often abstract debate. For Kevin, who had been appearing in a mentor role during the process, these were "endless philosophical discussion not unlike Macbeth's statement, "...full of sound and fury, signifying nothing." Indeed, on the Wiki page about the value-accounting system, edited by Sergei, Nelson, Kevin, and Pierre, along with other authors including John and Gillan, who randomly participated in discussions about such a system, we see entries like these:

> The VAS [value-accounting system] re-appropriates labor, which is a major departure from capitalism. In capitalism, labor becomes a commodity. In a corporation for example, the worker exchanges his labor against wage. This transaction dispossesses the worker of the fruits of his own labor. In other words, the owner of capital owns the value created by all workers. The VAS allows peers to

turn their labor into fluid equity and thus to own the future revenue generated from the products they co-produce.

The ideological components of VAS were developed beyond how to apply and use it in Technica's practice. Until this point, there had only been spreadsheets where members logged their own time, without much control, and a brief description of the task performed. A member could log in "any hours they wanted" though other members were free to check these spreadsheets (shareable Google document) (fieldnotes). (To my knowledge, there were no overbilling accusations. There were, however, disputes about whether these logs actually accounted for work that contributed to the organization. Arguably, the most relevant debate occurred in April 2014 between Tom and Sergei.)

A more formal operationalization of such a system came with Joe, who had first contacted Technica in August 2012 with an inquiry about how to "help with tools of economic analysis of value networks." Sergei thanked him for the "interest in our value network model" and highlighted how "we DO need A LOT of help in this area." As he explained, "eventually we will grow out of the sandbox (Google platform and +) [which includes spreadsheets] and build something more solid."

From that moment, Joe started working with Technica (Sergei, more precisely) to develop a new software from scratch to track people's contributions and distribute revenue accordingly. According to Sergei, the need for a new software was justified because existing products did not account for the complexity of Technica and were about "locking people in and charging more money to use the platform when transfer [out] costs to another platform become very high" (Google Hangout, Joe, Sergei, and myself, September 30, 2012)

This model is illustrated below, from a presentation of Technica's model. As we can see in Figure 3.2, the sum of individual contributions to Technica undergoes peer-to-peer evaluation. When a product or service from that contribution is sold on the market, individuals receive their share based on the percentage of his or her contribution.

Figure 3.4: The system to distribute revenue
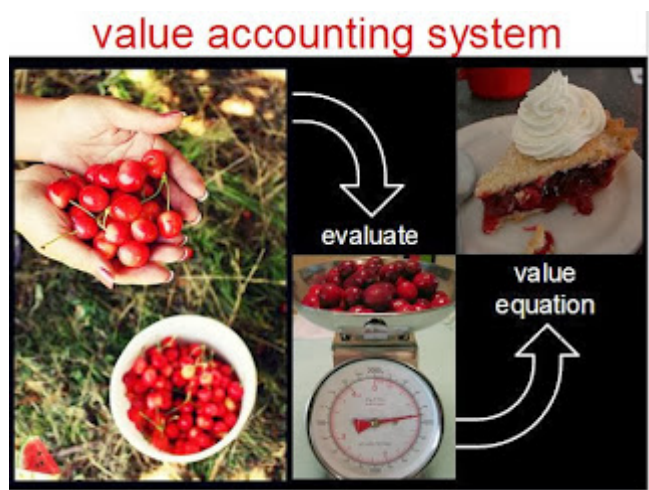
With the arrival of Bob and his partner Mary, the involvement in developing the system intensified, with many new participants, with many meetings and exchanges. I have over 40 recordings of meetings, each of about 1-2 hours in which a system related discussion is held. For example, this is the "LOOSE AGENDA" for one of the meetings, held on January 18, 2013, appearing in the textual chat part of the online conference.

10:00-10:20 - Introductions
10:20-11:00 - Use case Mapping - Emerging Leader Labs (resource mapping),
Technica (resource + value mapping)
11:00-11:20 - Questions/Discussion
11:20-11:40 - Trajectory of future developments to support resource + value

mapping
11:40-12:00 - Wrap-up

Based on a search of all emails, the term "value accounting system" (620) and "VAS" (633) appears 1253 times. These were the most popular terms, but there many other terms associated to such system. Some threads illustrate this well. In a total of 50 emails (Topics: "NRP," "New names for Vas before XDE event") to discuss whether the "value-accounting system" should still be called "value-accounting system" or something else. In these exchanges, we see an initial agreement on "Network Resource Planning," shifting to a more definitive agreement on "Open Value Network Operating System (OVN-OS), and then back to "Network Resource Planning.". Yet, members still continue to refer to it simply as "VAS" in subsequent messages and on the field.

Discussions were held often about how to measure a contribution based on negotiable "parameters" for a "value equation" such as "seniority," "reputation," and "commitment" (Videos of meetings held every week from Oct 29 to May 17; 12 emails threads). These "Meetings for Infrastructure" were marked in the Google Calendar of Technica every Monday from 10:00 to 11:00 (but often took longer).

There were other somewhat more marginal discussions in these exchanges, which included "supporting failure" or "non-intentional failure" and the adoption of "solidarity mechanisms" which concerned whether the network would support a member who had contributed yet did not achieve commercial success.

Some discussion criticized the very idea of accounting for intangible value. One of the earliest criticisms I have seen suggests that an individual reward would not have taken place if the individual did not benefit from being at Technica in the first place, because

"the community has intrinsic value" (Richard, in meeting in November 30, 2012, field notes). Other criticisms focused on the "machine of surveillance" of Technica's system and how it could be "very good in destroying intrinsic motivation" by "domesticating your brain" and "measur[ing] your thoughts" (Ulrich, an observer, in his blog). From time to time, Nelson made some sarcastic remarks about the matter. In particular, in October 2013, he started a chain of emails entitled "[A]pril fools Technica promo."

Nelson (email 1)

advertise that Technica has produced a brain interface that can tell when you are working and when you are day dreaming or doing something other than work and can update your time sheet for you

Nelson (email 2)

add some press release commentary like "we struggled to get members of Technica to track their time as they were too busy creating value to track it" "efforts like thinking about a problem were not being tracked, as you aren't really sitting at a computer when that is happening, and perhaps even unaware when you start or stop thinking about work - now we can capture that very real value

Nelson (email 3)

sure people won't get credit for day dreaming at the office, but that will be more than made up for by tracking them thinking about work on the way home, or when they are asleep

Nelson (email 4)

with alerts!!

so let's say one of your colleagues is working on a deliverable you are dependent on, you can actually subscribe to their work stream and be notified if they are distracted.. time for a quick call to get them back on track!

if you are a project manager, knowing your dev team is thrashing has never been easier

And don't worry, of course you can turn it off. Really. Trust us. Special lead lined box to put your headset in.

Good thing I'm not wearing one right now, but my work timer is actually off...

Mary, Joe's partner, who had been following rather detailed recommendations to develop such as systems, applauded Nelson's initiative: "thanks Nelson for supporting the Technica work logging campaign, love it.... the scary part is that this is what they actually do want.... :)" She referred to efforts she and Sergei had made to incent people to log into the system. Indeed, despite all the discussions and efforts to build this system, as it was being developed, only Sergei and Pierre logged in their time (VAS website). Nelson, who does not log his time, talked about understanding the "frustration of an open decision when no one is participating." Brian provided his theory:

> TECHNICA aims to satisfy two kinds of people:
>
> * people who aren't in it for the money, for whom this is a
>   side-project, who don't want to fill out timesheets or have their
>   motivation corrupted by monetary incentives
>
> * people for whom this is a day-job, who are willing to put up with
>   the unpleasantries of day jobs (timesheets, incentive systems)
>
> Sergei said that people in the first category, who aren't in it for the
> money, don't have to bother with timesheets and participation in the
> monetary incentive system. But what seems to be occurring is that
> people in the first category didn't know this, and thought they were
> being asked to bear the burdens of timesheets and incentive systems.

 Yet, while providing clarifications, Brian was not able to explain why "people for whom this is a day job" were not logging their time either. Note that Tom and Joshua, for example, did not log their time in this new system. For Sergei, the problem was "the UI [user interface, made by Joe] is still too technical, it's not enough intuitive." According to Joe, the problem was that the system was not adapted to Technica:

> When we [Joe and Lynn] started, we got the distinct impression that TECHNICA wanted project and materials management. When we got to Montreal and met people in the lab, it was clear that they were nowhere near ready for that, they were in a stage of chaotic R&D. Had we known that, we would have started with labnotes rather than recipes.

There was a great deal of discussion about this system, with full-time developing efforts with Joe and Mary, and virtually unsuccessful "logging campaigns" and "one-on-one [online] tutorials" with Mary. Yet, despite very little user engagement in practice, Sergei still considered the development of the system as a priority, as he explained by email.

> We've always had these two innovation tracks going on, the value network and the sensor technology, and I think we'll continue in the same direction. Hopefully one day we'll build a strong team for infrastructure development with its own funding. [...] If it were only for sensor technology we would not be breaking our heads inventing a new economy in parallel, we would have used the corporate framework right from the start.

The discrepancy between online and offline Technica was also responsible for the volatility of membership (i.e. people who would potentially use the VAS system). One of these members was Martin, who talked about being attracted by the website's claims of "open source" and "gift economy" (see Chapter 4), but found that when he joined Technica "we aren't producing open source hardware." For him, this was due to the "lack of documentation" and the use of "proprietary software" because "they use [Microsoft] Windows [instead of something like Linux]." He did not quit right away, and started to develop a "knowledge management system" as a way to align it with the practices of open source communities. Yet, "after some time with the system online i learn that most people in the community is not interesting, my target is not impose a system for people that not want to use them my plan of work for close the test."

The dealbreaker, however, for Martin and others who passed through Technica, was that they were not paid a salary, after being involved for a few weeks or a couple of months (fieldnotes). Aside from Sergei, Tom, Pierre, Joshua and a few others, the rotation of other members was high. When I asked about Ben, a member who had virtually disappeared after a few weeks, Joshua said that Ben "could never justify it [working at Technica] to his wife" (fieldnotes). Martin's explanations were related. By email, his explained that his priority was "to get a girlfriend <- this is a very important point for me now, and yes you need money for that!"

Recruiting events at universities and colleges led to little follow-up from the students. Perhaps, as I noted in the fieldnotes at an event at University L, this was in part because Technicans appeared "too needy to get whoever they could to join Technica. If it was an engineer there, Joshua seemed even more desperate. Anyone appeared welcome." At this event, "Joshua told a student 'you're hired' within a few minutes of conversation." When students "asked questions about role description or salaries," I noted, "they [Sergei and Joshua] moved on without answering them and got into the advantages of not having a boss."

Yet, people who demonstrated an interest in contributing to Technica claimed that they were ignored. "Does anyone even know who I am and what I do?" Luc asked after he had been "contact[ing] "Technica, interested in collaborating somehow," by email for over a year (he never went to the lab. He lives 2 hours from the lab). Luc explained that "I have a lot I feel I could bring" and "I still don't know exactly how to help." . "I don't fit in in a very clear way... I would need to be walked through by someone on the team to see how I can help, based specifically on the current needs."

Pierre felt that the infrastructure was not yet in place to welcome people like Luc, but signaled that this will improve in the future.

> There is another major discrepancy between what will be Technica in the future (what it communicates about now) and what it is today. In the future, Technica can welcome everyone, entrepreneur-minded and not entrepreneur-minded. By not entrepreneur I mean more follower in a project, collaborator and less starter, moderator, etc. And there's absolutely nothing bad to be more follower. And this is precisely what the OVNI is also about: giving access to anyone to a project in 2 clicks (well, OK, 5 clicks).

Sergei suggested that there was nothing additional that could be done to integrate newcomers.

> We're designing TECHNICA to operate in the long tail mode, i.e. have a project and task management system that allows you to identify something to do fast, evaluate your potential rewards, etc. But we're not there yet. That means that integration has to be done by humans, who are multitasking like crazy and working long hours. This is the reality today.
>
> To tell you the truth, I don't know if we could do better than what we already do. Some problems are there not because those who do things are bad, but because we haven't finished designing this thing. We're designing an organization and building this organization and using this organization to sustain ourselves. Not an easy task.

Furthermore, Sergei disagreed with Luc, and transferred the responsibility to him.

> It is not accurate that full timers don't take good care about those who show interest. But yes, we're all very, extremely busy and can rapidly forget someone who doesn't seem VERY interested. [...] I also think that your assessment of the problem is not correct, it doesn't match our reality. It's not a problem that we as individuals have and that can correct. It is a problem of a system in formation. Spend more time with us and you'll start to appreciate every one of us. After all, we're doing a lot of sacrifices to move this thing off the ground, for the benefit of our entire society.

Concerns like these were not rare. Tullius who had joined to participate in the development of the value-accounting system talked about how "I can't say that I share

Luc's experience personally, but can absolutely imagine these kinds of things happening, and it is something to guard against."

Another member, Mohammed, who joined and came to the lab to "admire the work that Sergei is doing" and was "happy to explain to me what Technica is about" (fieldnotes), ended up providing a rather abstract illustration of his work at Technica and what Technica is about, as we can see represented in this drawing he made as we talked "to clarify things."

Figure 3.5: Working at Technica, according to Mohammed[32]

So, as we got into the second half of 2013, according to Sergei overall affiliation was "below critical mass." For Joshua, this was because "there is no money in Technica" (fieldnotes) and for Sergei "people don't understand the model" (fieldnotes). At this point, a bit over 100 affiliates were listed on the website, which for Sergei is less than 10% of what had been projected for 2014 (Technica milestones document)."5000

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[32] The drawing made by Mohammed was only done in the upper half part of the whiteboard. The lower part was already there.

affiliates" had been projected for 2015. If I may, I point out that this count is negotiable. It includes any person who had had any kind of rapport with Technica (e.g. Mr. Bowman, Joshua's father), people who exchange a couple of emails (e.g. Ali), and even people who had disappeared or quit (e.g. Martin)

Indeed, in a presentation in late October in University C, Pierre talked about Technica as having "15-20 full-time members" and "71 who orient the debate" (fieldnotes). My understanding of membership, which I considered to be generous, was closer to Pierre's than what was listed on the website. I included as full-time members Sergei, Pierre, Tom, Joshua, Joe, Mary, Nabil, Joshua, and Joe and part-time members Nelson, Brian, Vincent and Mary.

Nabil, who appears above, was one of the new names in the full-time membership list from this period. He was an MBA student with an interest in "integrating large scale technology systems" as well as "economics, history, ethics, culture, technology, agriculture." He had joined in May 2013, and was becoming increasingly active taking on more responsibilities as of November 2013.

In this group we had 3.5 people doing R&D (e.g. the Medisensor) (considering Sergei does 50% vision and 50% R&D), 2 people programming the VAS, and 4.5 people involved in strategy and vision. The assessment is that about 2/3 of the people (6.5/10) were involved in activities related to the (always evolving) vision that Sergei, directly or indirectly, had presented from the outset. There was also an average of 10 people in other countries contributing rather sporadically to a series of emails and online meetings with an overall more abstract flavouring (e.g. Nelson, Bryan, Kevin).

Despite the low affiliation for a "global peer-to-peer network" (Sergei's term), and the virtually abandoned-in-practice value-accounting system, Technicans (Sergei in particular) still presented the model and the value-accounting system as some kind of agent for the "new economy."

For example, many Technicans were engaged in the elaboration of the slides and the storyline for a presentation at the well-known and widely diffused XDE event (email exchanges and fieldnotes). At this event in October 2013, which is held in many cities around the world, Sergei presented Technica as creating "value in an open world" based considering the "peer-to-peer changes to the economy." Technica's value-accounting system was presented as "the next logical step for open source hardware and open source software" because it "embodies the fundamental principles of this new economy." The only reference to sensors in this 18-minute presentation was that Technica started with a prototype shared by the inventors (Tom and himself), although it "doesn't really matter what it is, it could have been something else. It is just a piece of hardware," concluded Sergei.

The value-accounting system was being referred to by other well-known professors as having "important innovative value" and "all that peer-to-peer organizations needed" (fieldnotes from another presentation of Technica at University C). At this same event, the first question from an audience member (likely a student) started with "From what I understand you are not oriented by money." Even if this presentation was prepared and given by Pierre who emphasized the pragmatic over the ideological aspects, I noted in my notebook that "people do not find the model economically viable." The tension

between the vision of Technica as a technology startup and a new organizational model remained, as Pierre explained by email.

> Technica is not yet what it shows: it shows a very ambitious and attractive vision but for now, as the vision is very large compared to a classical economy based mono-product focused startup, most of it is still a vision. (Don't misunderstand me, I am not saying the vision is too large, I just say it will take either more time or people to reach the goals). The vision will become reality when being able to scale massively. Technica is a big project way beyond a classical startup, but the reality is that it had to start somewhere, and in a sense it's still a startup with a huge overload on the shoulders of a small group. And second, there is another major discrepancy between what will be Technica in the future (what it communicates about now) and what it is today.

However, the two tracks became increasingly difficult to reconcile, as we will see.

3.5 Harder times (October 2013- April 2014)

By this point, the money from grants was ending, and compromises were becoming more difficult. The lack of revenue had some members like Joseph considering Technica as an option while being "available for a new opportunity" (his LinkedIn profile) and, as Nabil confided to me, "Joshua wants to leave if there is no revenue by January."

Proposals with high expectations for generating revenue, such as the one with the National Innovation Bureau, failed. In October 2013, Pierre attributed this failure in part to "too much load for a single person [himself] and we were supposed to work as a group." Sergei, however, focused his concerns on how such endeavors would be "compromising our most fundamental principles of openness and transparency." For Sergei, "it's nice to play with the big guys... But we know that we can't really take full advantage of our model playing that game. In other words, playing that game is like

boxing with a hand tied behind our back. He wondered: "what if all that time was spent

on a crowdfunding campaign??"

While Pierre was concerned about survival, Sergei was not willing to compromise

values. Pierre, rather ironically, responded to that idea with "sure, as long as it gives

something tangible and not only a Google doc nor good intentions...because it's what we

(or only me?) are suffering these days." Sergei reinforces Pierre's suggestion of

fragmentation, by arguing that, "it is better to focus on a few crowdfunding campaigns

to get a few more prototypes out, get some revenue from the resulting sales too, enlarge

the network, and after go back to play these big and rigged games, once we have more

potential."

The divide in understandings between the co-founders only heightened. "Why do I

break my neck writing a proposal when we can get $500k ?", Pierre asked. Furthermore,

he explained that he would be acting on his own, regardless of any agreement with

Sergei:

> And you know what, on the principle, I am totally in favor of this idea
> (crowdfunding). We don't have a crowdfunding infrastructure, so we need to make
> one...but in the meantime, there's a deadline (January 7) for the BCIP. [...] I am
> going to start writing for that, as I did earlier. Anyone interested can help.

This was not an isolated discussion during this period, together with similar

heightening-divide discussions over other topics (see Chapter 5). Furthermore, the

crowdfunding campaign, run in parallel by Sergei, did not produce results. Based on the

crowdfunding website, compared to an estimate of $200,000 the campaign to fund

Technica had actually collected $275 by the end of 2013 (0.001% of the target),

including donations from Sergei's brother, George. Sergei tried to make sense of this situation:

> For some reason our signals don't get a lot of resonance out there. People still don't understand TECHNICA yet. This is in part because, probably, we don't explain it well enough, but mostly, I think, because we are breaking new ground and it naturally takes some adoption time. [..] it seems that this message doesn't get through.

While the problem according to Sergei was with how the message was communicated or with the receivers, the situation was that besides the difficulty to get more funding, little money was being generated from sales. The Medisensor was not ready yet, let alone sold. Only in December 2013 did we see an announcement of "the first 1.4K earned by Technicans, after 3 years of hard work," however this was from another, simpler product, the "low cost" Yellow Box.

Because people were not logging their time in the system for accounting value, Sergei listed people's contributions to "design a value equation" in order to distribute this revenue. In this top-down fashion, he wrote, "Joshua put a lot of time and resources in this project." "Tom was involved in testing at Corey's lab, participated in design…" "George did 3D designs and product designs" "Pierre did market studies, business development, marketing and sales and invested quite a bit of money to keep the project and TECHNICA running." "I tested the Yellow Box, participated in business development, programming, invested quite a bit of money in this project and TECHNICA." Sergei concludes: "if I forgot anyone please forgive me, it is late, I am tired, and I am still at the lab thinking about the good times ahead…"

In addition to the difficulty of generating money and a rather improvised way to deal with it (when and if it came) and despite all the efforts that had been put in developing such a system, people started taking action without reaching a somewhat formal agreement. In one instance, Pierre with the help of a new member, Jean-Claude, filed an application to "register the [Technica] trademark." Sergei accused Pierre and Jean-Claude for taking a "decision unilaterally" because he didn't "remember an announcement about the Technica brand being registered." Although he mentioned that he "appreciates free initiative," Sergei considered that taking action without consulting the network could "undermine our growth potential."

2014 started with this dispute between Sergei and Jean-Claude. I was not at Technica on the day of the dispute, and learned it about when Sergei sent a collective email. "Jean-Claude took this conversation to a personal level, and he repeatedly called me stupid in front of others, among other names like dreamer, hallucinating..." Sergei provided details: "Jean-Claude was even physically intimidating, first coming really close to me and standing in my face." While some members like Joseph (fieldnotes) reported that that the dispute was actually "much worse" than what Sergei had described in the email, he said that "things should have been handed internally [...] without mentioning details about the fight and focusing on the actual issue.[33]" Joshua disapproved of Sergei's opening a "reputation case" against Jean-Claude and the "public shaming" done after the dispute (fieldnotes). Jean-Claude simply left Technica, without, to my knowledge, saying another word.

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[33] Talk held in Portuguese.

This dispute represented an extreme example of the inability to reach compromise over ideological and pragmatic issues about the venture. In January 10, 2014, there was a full-afternoon meeting in search of a compromise or solution. At this meeting, as reported in the fieldnotes, Nabil acted as the host with the two sides based on their physical disposition around the table: Sergei and Nabil (on the "open" and philosophically-oriented side) vs. Pierre, Tom, Joseph, and Joshua (on the "closed" or skeptical and practically-oriented side). (I was on the "open" side" of the table because it had more space there.) While seated at the "closed" side of the table, Pierre was taking a more "middle-ground" approach, yet tilting towards the "closed" position.

The meeting started with Nabil presenting trends towards the "new economy," "models of open organizations," and "successful cases" of open organizations such as "Linux," "Arduino," and "AirBnb." The exchanges after the presentation were rather straight-to-the point.

Tom: "What is the material benefit of being open source for Technica?"

Sergei: "We can have a community to help us develop our products"

Tom: "But Technica doesn't have a community, like Arduino does. These are mass market products, we sell specialized scientific products."

Joshua: "Yeah, opening up would only hurt ourselves"

Joseph: "There is no community for our scientific products. There is no reason [for us] to be open. Pereskia Inc. should have the IP [intellectual property] of the products. [...] universities and labs are not going to be buy [our products]."

During the break, I talked to Joseph who told me that this "meeting is a waste of time." It was organized by "Nabil, he has little business experience and is disconnected from practice." For Joseph, who talked about being in Technica "until another opportunity shows up" the "model at Technica can't work." He explained that people "are not committed," and "simply don't show up to work when they don't feel like it that day." As a result, he said, the "projects don't advance," neither do "sales."

As the meeting went on, we kept on hearing discussions about two different approaches. In the following exchange, we observed two different ways of building a community.

Tom: First we sell, then we start thinking of a community. But now we are opening and we don't even know for whom.

Sergei: We can advertise stuff and create a buzz around potential participants. We will then attract people who will help us innovate.

Tom: There is no other way to build a community other than through sales, relationships with clients, feedback, etc.

Then Joshua's father, Mr. Bowman, who had arrived near the end of the meeting, intervened:

> Sergei, scientists don't care about the open logo. If they are curious, they will come. You don't need to take off your clothes and run around naked to get people interested. [...] You [Sergei] shouldn't expect that innovation will randomly occur by sending signals everywhere. [...] And as Tom has said, mass market products and scientific products are different, what Technica makes does not appear to have any benefit of being open.

With this, Mr. Bowman pretty much wrapped up the meeting. The matter of concern was not a theoretical agreement on whether openness is beneficial or whether there is a

movement towards a new economy, but how claiming and doing openness could be beneficial for Technica and generate revenue for Technicans. And these were questions that neither Nabil nor Sergei were able to answer.

On my self-ethnographic journal, I wrote how, overall, I did not see a way out of this impasse:

> Technica is about to split. I have never seen such tension [there] – and it is getting personal. I also have somewhat lost most emotional attachment – in other words, I do not care much if they split or not. Other people do not care too, like Nelson [who was in part of this meeting via Internet]. People are losing interest [in a reference to less activity on the emails, academics no longer getting involved, etc.]. I am just following the events, like many [people who were no longer participating via emails but would supposedly be reading them].

 What I noted after the meeting was that "Sergei who always wants to have the final word, in this meeting he left almost everything unanswered, and did not try to convince people of his ideas as usual. […] But then, to my surprise, we have a meeting the same evening about an open hub…"

3.5.1 The "Project RISE" parentheses (January – April 2014)

"Project RISE" appeared on Technica's website as the "the most advanced open innovation center in the world." It was described as the teaming up of Technica (represented by Sergei and Nabil) with a Local SME Centre in collaboration with people from three universities in Quebec along with two other information technology organisms in order "to build a 50,000 square feet open innovation hub in Montreal." Simply put, in institutional terms, it was about gathering together similar organizations in Quebec to pool resources.

This first meeting, on the evening of January 10, gathered about 40 participants, and lasted 3.5 hours. It started with Jeanette in behalf of the Local SME Centre explaining the activities of the Centre as well as "Project RISE" more specifically. She talked about "a lot of potential to get funding" due to government interest in open innovation and Fab Labs, as exemplified in Barcelona. Jeanette explained that the SME Centre "would not provide the money directly" but would provide all the necessary "assistance to obtain it from different organisms" (fieldnotes).

Technica's role, according to Sergei, was "seeding the open innovation project for having experience in building communities." Nabil explained that "we are building a system based on trust, where we can innovate together and go to market faster. He used terms like "dream innovation, not available in corporations, empowering people." Nabil's message for Project RISE was "if we share houses, cars, and tasks, why not share innovation?" Overall, Nabil and Sergei positioned Technica as an agent that would coordinate the "open world" in Montreal for Project RISE (fieldnotes).

Sergei and Nabil pointed out that having several open organizations joining forces would make a more solid proposal for funding and for sharing spaces and equipment. In this way, participants would be able to have rent, equipment, and other resources at very low costs. (As I note, this meeting came as a "surprise" to me after the afternoon meeting. "It is like the previous meeting [had] never happened.")

For about 1 hour of this meeting, Sergei and Nabil focused on the philosophical underpinnings of the project. I had seen and heard these topics presented many times before (including in the afternoon meeting, with examples of Linux, Arduino, etc.).

Topics in the slides included the "evolution of society," a "the tale of the old world," "a tale of the new world," moving on to "creating the next innovation model," and the "open value network model."

However, the participants did not have questions or concerns about the "new economy", but were rather more interested in numbers. As I noted, "this was a quite different dynamic from the usual meetings at Technica where these kinds of questions did not appear [as often]." In the 2-hour Q&A period (Sergei and Nabil on the "A" side), I wrote down, from a variety of participants, questions like "How much funding will there be?" "How long will this take?" "How big will my space be?" "What are the monthly cash flows?" "What are the deadlines [for the series of steps necessary]?" "How much money do we need and for what?" "Will we have a constitution [to set up rules and etc.]?"

Rather than answering these questions directly, Nabil did not say much more than something in the lines of "we all have to work together for a common space." I noted that I was "not convinced" about the answers, but could only have a "slight idea of people's grasp of this project." At the end of the presentations during a kind of get-together, I talked to 4 (out of about 40) participants, but was not able to have a clearer idea about their impressions (in terms of whether they would still be interested in the project, for example). At the very end, to close the meeting, Nabil passed around a paper for participants to put in their "project," "email," and how they can "add value."

This open hub was the main activity I could see going on in (around, to be more precise) Technica for about 3-4 months. The previous unresolved struggles (openness, patents, trademarks, Medisensor, revenue, etc.) were left on hold during this period. There were

no emails exchanges with any tensions and, to my knowledge, neither were there meetings. Sergei and Nabil were virtually absent from Technica's activities, and most of their emails, meetings, documents, and blog posts were about the Project RISE.

To my knowledge, people like Tom did not manifest a clear or more explicit position or opinion about Project RISE, although based on the past discussion I figured that he would be "against" it (fieldnotes). He did not however get involved in this project. Joe, on the other hand, found it "a wonderful idea" (because he would be able to design a software for a much bigger project) and was "happy to collaborate with other people who are working on other software."

In the second Project RISE meeting, however, there were about 10 people. I found that "surprising," because, although I had noted that I did not find the first meeting "convinc[ing]," "open hubs still appeared to promise some benefits that would still be worth considering." Some of the remaining participants, like Guy from Lifeplant Co-op with whom I talked before the meeting, demonstrated little or no concern about the about the open ideology underlying the project, but were rather more focused on getting "cheaper rent" than what they were currently paying.

The Google Groups for Project RISE, created by Sergei, had a total of 35 threads, with a few emails each. The main email senders were Sergei and Nabil, followed by a couple of emails by Joe, Mary, Pierre, and Joshua, but there were only 4 emails from "non-Technicans," i.e. people from separate organizations interested in being part of this open hub. The project was losing traction, despite (or perhaps because of) Nabil's

insistence to "please respond" and "sorry to stress the point but we need to have the information [to submit to Local SME Centre] ready and compiled by Feb 7th."

While Technicans were still presenting their model in universities and professors presented Technica as "an exceptional case in open innovation" and "unique and extraordinary experience in open innovation" (March 20, 2014), at Project RISE there were a few people who were still demonstrating interest, however insufficient in number to get the project going. The meeting of Project RISE lasted 3 hours and 15 minutes on April 2, with Pierre, Nabil, and Sergei and two other "non-Technica" participants. The "Project RISE Strategic Plan" was presented and discussed. The lack of participants was a rather obvious impediment to put this plan in practice, because the funding for this hub would require a larger number of participating organizations (Video: "Project RISE review meeting Part 2").

The status of the Project RISE was unclear at this stage. It was still in a business-as-usual mode despite losing people at every meeting. In any case, I consider the death of the project to be from when I received this email sent to Jeanette (and everyone in cc) from Sergei, after she presented the Project RISE elsewhere.

> Nabil and myself were in the room with 30 other people. To my astonishment, there was absolutely no mention of TECHNICA, and absolutely no reference to prior work done on Project RISE. It was as if the Project RISE was invented yesterday... This is despite the fact that Nabil and I had a very good presence in the room and some people already knew us. [...] Total silence on TECHNICA and prior work on Project RISE.
>
> [However], absolutely nothing happened between TECHNICA and the Local SME Centre that could alter our relation, or nothing that I know of. [...] It doesn't matter what one thinks about the present or about the future, one MUST acknowledge past (genuine!) contributions. I consider this sadden distancing of Jeanette (I don't want to talk about the entire SME Centre) and her total silence about TECHNICA

and about our past contribution to Project RISE, during this event, **a breach of trust**. I will not recommend collaboration with the SME Centre on this specific project. **I am living by the principles of a free and open society.**

Sergei's email suggested that Jeanette's betrayal stemmed from the lack of expected results. With this email, he closes Project RISE. We are now back to Technica.

3.6 The split (April 2014)

After this open hub hiatus, which Joe referred to as a "big mess" and "failure," Sergei and Nabil were "back" at Technica. Soon, the tensions left on hold since January 10 resurfaced, but stronger. Also, differences became personal, including among people within the "open" camp. In the latter days of Project Rise, the relationship between Sergei, Nabil, and Joe became strained when Sergei declared in the forum that Nabil "would like to have him [Joe] replaced with someone else" and that Joe "doesn't trust you [Nabil] with community building [and] infrastructure development." For Joe, "the failure of the open alliance was on Nabil" because, among other things, "he did not hold anybody accountable for their own promises."

By April 19, 2014, we could see some rather solid boundaries being raised. "Pierre and I have asked Sergei to step down from the non-for-profit so that we could use this entity to provide custodian services," said Nabil, adding that "Sergei accepted to step down from the non-for-profit." This non-for-profit entity was another entity (somewhat like Pereskia Inc.) to interface with the environment. In this case, it was about coordinating student summer job programs paid by the Government of Canada. The point of this observation is to note Nabil's insistence for Sergei to "step down" because "it [the non-profit] was an individual initiative by Pierre and I."

Sergei then engaged in a series of long emails, to which Pierre and Nabil did not respond. Sergei talked about how "the decision is not yours to make" and "would like to invoke a decision making process." In another email, he added that "the argument 'we built it so we can do whatever we want with it' doesn't hold once it is part of the infrastructure. Can Joe and Mary tomorrow say "OK guys, nice working with you but we're going to pull the plug on TECHNICA's VAS, because we programed it ???" This issue was closed with questions.

A few days later, we saw another thread that had Joe wondering whether it was "about the summer job thread." It was related to it, but there was also a lot more. The following thread, presented in detail in Chapter 5, had 92 posts, including the participation of Tom (who rarely wrote in these threads) and many other peripheral affiliates who had not appeared in months. This was an intensely active thread, with emails exchanged in a matter of seconds.

As I was receiving these emails, I noted in my self-ethnographic journal that I considered it as "an addictive soap opera. I cannot wait to receive new emails. I don't know why, really, but I do find it exciting to follow the 'fights' going on. Before, I think things were quite boring and repetitive [because it was always the same stories without resolution, see Chapter 5]." I noted how I got involved during this thread: "it is interesting that I have gone through somewhat of a roller-coaster between an advocate and a 'cold' observer."

In this thread, Nabil made a "call for meeting on Technica" to discuss the "future of Technica." What the meeting is about, more precisely, was never quite clear. Joe talked

about how "this smells like a critical, possibly turning-point issue. We would like to understand it, and may participate. We will follow emails diligently" Tom however talked about how "we all know more or less what's going on" and is for "mak[ing] it exactly one-time decision[s][34]. For "Nelson, who was "watching the train wreck from afar":

> This meeting appears like an attempt to ram a decision through [...] It is also very typical of these sorts of tensions to go unresolved until they end in a meeting and ultimatums, followed by fracture and people going their own ways. It is unfortunate, but this is a pattern I have seen many times. It is interesting to see it happen not due to money appearing (like traditional start-ups) but rather brand value appearing - but otherwise there is nothing new here.

Bystanders like Josie made sense of the thread in broad terms like "tensions, wherever they come from." Admitting that she didn't have "a solid grasp of all the issues that have been tossed on the table," she was

> doubtful that it [a meeting] will accomplish much of anything. In fact, with the way this thread has been unfolding it could do more damage unless... I am not sure what would need to happen to make it a productive meeting I just don't feel that it has. Frankly, this was giving me flashbacks and reminding me of how I got burned out as a community development consultant.

A few emails later, Sergei explained that he talked offline with Nabil, Pierre, and Tom, and "was informed for the first time of some of their plans." He explained that "in essence, they want to create an entity (a closed company). I will not contribute to this venture. Neither was I invited. I respect their choice. I don't want to keep anyone from pursuing their own dreams."

However, the problem according to Sergei was that he "doesn't like how this story developed, behind the curtain, because it triggers defense mechanisms and creates

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[34] Squared brackets in the original

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division." For him, Nabil, Tom, and Pierre had a "master plan behind the curtain." Sergei talked about this thread as an accumulation of issues. "The student summer job thread is another story, although somewhat related to this." "For him, "what IS a surprise is the new form/manifestation of this slowly cooking phenomenon."

Tom disagreed, saying that his "opinion did not develop behind the curtain" and talked about setting "clear-decision making mechanisms, without endless philosophical debates about the destiny of humankind." Tom justified this new endeavor (which excludes Sergei) by presenting a list of seven moments in which Sergei, "instead of doing R&D," was "trying to manage something that is way [in] over your head. You simply don't have enough skills for that."

> Please, don't go deeper into your philosophical debates. The situation is as simple as this:
>
> 1)   In 2012 I made a metabolic chamber for experiment with permeabilized muscle fibers at Corey's. Everything was ready except for the Medisensor. Somehow, by miracle we succeeded to perform one good experiment, and that's it. The LD Medisensor doesn't work. You're busy with anything but R&D.
>
> 2)   In 2013 we switched to LED Medisensor. I made another chamber for electrical stimulation of impermeable muscle fibers and fiber bundles. Jill (Corey's student) helped to set up the stimulation system. We tried the LED Medisensor, - it doesn't work. Not enough sensitive, even for thick bundles. Impossible to do real-time experiments. You're busy with anything but R&D.
>
> 3)   Then we met Nabil. He suggested if Sergei doesn't want to work on the Medisensor, let's switch to something else. We started the Yellow Box project, now it's 95%
>
> 4)   Renata, Pierre, and I made a website for Yellow Box. For a few MONTHS I've been asking you to write a short paragraph about Technica. You never found an hour in your full and rigid schedule.
>
> 5)   Then I also made a brochure for Yellow Box. Thanks to the website and the brochure, we spread the information around and finally Pierre and Nabil met Gertrude from L University who got interested. She introduced us to the chair of her department and now they are ready to start an engage grant with us.

6)	Pierre went to D University. As a result: one lab wants to start an engage grant (they need Yellow Box); one more prof. needs automation for his animal experiments and he is ready to pay; third lab is READY TO PAY 10K this coming September, - they need LED Medisensor. You are as always busy with anything but R&D. Yesterday you said that Medisensor is your low priority.

7)	Finally, Pierre agreed with Layne to launch the micro-indentation device project. Layne is even ready to PAY YOU some salary. We desperately need Medisensor, but … - it's your low priority. You're busy with anything but R&D.

Sergei replied to Tom's longest email in the history of Technica. In rebuttal to Tom's years of frustration at the lack of contributions expressed in the leitmotif "you're busy with anything but R&D," Sergei told Tom to "to go on VAS and look at my R&D logs." Being "sorry for not being able to create time out of thin air," Sergei told Tom that "everyone here would be laughing at your comments." For Tom, however, people "won't find it funny at all" and "your logs in VAS," and he responds ironically "this is very good, but I personally don't care about it […] According to this VAS, you are the most busiest (sic) person on the planet [but] I don't care about your logs, couldn't care less. I gave you the list of at least seven moments in our history when your contribution was really needed."

At this point, Tom considered that all these efforts - to build a new economy with a system that has been presented internationally as the next step in peer-to-peer production – did not matter for Technica. The dispute continued, to the level at which Sergei accused his partners of betraying him. "Tom asked me a few days ago if I wanted to quit my position in Pereskia Inc." Now, it is Tom who argues that "purposefully misinforming" other people because "I never asked you to step down from Pereskia Inc."

Indeed, as the discussion went on, with Sergei portraying this as a "coup [d'état]" to take over the network and Pierre talking about "a discrepancy of intentions," we felt that the

group had passed the point of no return. Other participants, like Edson, were ironic, referring to this discussion as "kindergarten [that] was just open at Technica." Then, Nabil, Pierre, and Tom announced their departures from Technica (see Chapter 5 for their departure statements). At this point Joe asked:

> Is Technica dead? (parallel e-mail thread, April 24, 2013)
>
> Joe
>
> I'm paying for [website where VAS is hosted] and maintaining the software on that server.
>
> If Technica is dead, I will stop paying. That will mean the site will go dead near the end of May.
>
> If anybody wants to take over the payments, let me know before May 15.
>
> If anybody from Technica wants all of the data, let me know about that. We have daily backups.
>
> Valdev remains. We will continue to support other networks; several want to use it as a test bed.
>
> The software is and will remain open source and we plan to continue to develop it.
>
> We are not Technica, nor are we reliant on Technica. We never were. We have always been peers.
>
> It's been fun. Best wishes.
>
> If Technica is not dead, we'll rock on, assuming Technica members want to keep dancing with us.
>
> Sergei: Technica is not dead Joe. We'll keep the VAS and continue work as usual. If it is a burden for you I can continue to make the payments.
>
> Nelson: Yay! Thinking of a certain Monty Python skit.[35]

Technica did not close down (though one may argue that it could not do so because it had never "opened" in a legal or even practical sense), and kept on going with Sergei.

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[35] https://www.youtube.com/watch?v=4vuW6tQ0218, see also page xxi on the dead parrot

With Pierre, Tom, and Nabil gone, along with many other commentators who had fled the scene, Sergei now had only himself to struggle with about what Technica was about. When I had asked in November 2, 2012, about shared understandings in Technica, Sergei answered. "I am trying to bring people to the right side. I am holding the candle so others can follow, because they don't understand what Technica is about." Their departure may suggest that they finally did.

3.7 Epilogue: Technica after the Spring crisis: an overview

Here I will *tell* the story of Technica after the crisis. This period is not analyzed directly in the thesis. This is based on observing emails and websites.

From May 5-7, a few weeks after the split, Sergei presented Technica's model at Fluid, an important international event held every year in Europe about peer-to-peer, collaborative economy, and open source. This presentation had already been scheduled before the crisis.

Following Sergei's return, the remaining participants from the pre-split period were Sergei, and his brother George, along with Joe and Mary collaborating further from the "outside." Sergei got into a dispute with Joshua, who left. The protagonists of the story followed separate ways in different organizations. With few occasional exceptions, virtually every pre-split participant in the email list did not subsequently post any messages (although still on the list and receiving emails). Nabil and Pierre started a project along the lines of Project RISE soon after the split, but it was not their main occupation and later each one followed a separate path.

Post-split Technica and its activity were characterized by different cycles of entirely new affiliates. From May to October, it became courses on 3D printing, based on the interests of George and the new affiliates. After about 5 months this project failed, and a key individual in this project reported leaving "Technica entirely because of Sergei." In October 2014, brand new affiliates joined Sergei and George and we saw a return to sensors, with some work on garden sensors. This project did not generate revenue, and to my knowledge members departed without any crisis in particular.

As of 2015, Sergei paid from his own pocket to make ends meet, with $500 monthly loans to Technica "to be paid as soon as possible" to cover about $1200 of expenses (rent, etc.). The rest of the money came from donations, crowdfunding, and new affiliates' pockets, who Sergei often reminded to contribute to the bills. "Technica is not just one guy paying for everything," according to Sergei.

In the latest cycle, the new set of affiliates was more ideologically-oriented than any previous cycle. They have produced videos and used other media to pass on the message of a new economy. Thirty-six different projects, including the Medisensor, are still listed on the website but their status is not clear and, to my knowledge, only the Yellow Box has been completed. If a sale was made, I would have likely received an email about it.

The latest message I am posting here was dated February 29, 2016, from Sergei. As we can see, Sergei is repeating the history of life at Technica: "we recently reached a point where we realized that we need to implement some rules and some protocols around these activities […] This is IMPORTANT, because we are trying to create new

governance that will most probably be remixed elsewhere. [...] I appreciate your time

reading this long email and I hope you'll rally behind this initiative."

4. Organizational identity work in an emerging peer-to-peer network

(with Ann Langley)

Abstract

The purpose of this paper is to explore real-time and naturally-occurring processes of emergence of organizational identity from inception. While previous studies provide insights into broader phases associated with identity formation, they do not reveal the potentially more contentious dynamics that are likely to have preceded or underpinned it. With a focus on organizational identity formation in the everyday, this study analyzes 9000 collective e-mails exchanged over four years since the foundation of an organization in the field of open-source hardware. Our study identifies three types of discursive organizational identity work engaged in by members through their interactions, that we call ideological, practice, and boundary work. We show how through their organizational identity work, members continually struggle to reconcile conflicting value commitments with pragmatic concerns about the sustainability of the organization. We argue that while organizational identity is about shared understandings, the capacity of organizational members to develop shared understanding about identity is paradoxically founded on their ongoing everyday confrontations with the tensions underlying it.

The purpose of this paper is to explore the real-time naturally-occurring processes of organizational identity formation from inception. While previous studies of organizational identity formation have suggested that negotiating, interacting, and sharing understandings are crucial to identity formation, these interactive processes are rarely analyzed directly, including in ethnographic work (Drori, Honig, & Sheaffer, 2009; O'Connor, 2002). Rather, most studies of organizational identity rely on respondents' *a posteriori* interview accounts. These can be subject to hindsight bias, impression management, and the discounting of discontinuities (Alvesson, 2003). Arguing that what we come to see as organizational identities are a panoply of discontinuities rather than an entity stabilized through a set of processes, we adopt a micro-oriented process lens to analyze directly how people form the contours of organizational identity in their everyday interactions. As we have seen in Chapter 2, this methodological approach using the term organizational identity work enables (yet does not automatically grant) an ontological shift to explore organizational identity formation, and therefore furthers understanding of identity as a process as theorized in Chapter 1.

We do this by analyzing an exceptional data base of online conversations among members of a peer-to-peer open hardware start-up from its inception. These data allow us to explore organizational identity work as occurring through interaction among participants - rather than with and for the researcher - and enable us to follow over time how identity is made sense of and negotiated among those involved. We show how three different types of conversations contribute to shaping and reshaping understandings of an emerging and unformed organizational identity, and how individuals participating in

these conversations accomplish what we call "organizational identity work," producing a continually shifting stream of meanings that sometimes draw members together to share perspectives but at other times to question them.

After reviewing previous studies concerned with processes of organizational identity formation from inception, we present the context of our ethnographic study and the methodology. Then, we present our findings showing three interrelated processes of organizational identity work. Finally we link the findings to broader debates in the field.

4.1 Previous literature on organizational identity formation from inception

While studies on organizational identity abound, there is a relatively small body of organizational identity literature that has been specifically dedicated to organizational identity formation and emergence from scratch – i.e., beginning before the existence of organization in a clear or more formal sense. Most of these studies adopt what is known as a "social actor" orientation (Clegg, Rhodes, & Kornberger, 2007; Czarniawska & Wolff, 1998; Wry, Lounsbury, & Glynn, 2011) in which organizational identities are viewed as singular and associated with externally directed official identity claims that are seen as properties of the organization. Arguably, by assuming that an entity with an identity already exists from the outset, these studies are limited in their capacity to explain how such an entity came to be. In particular, these studies tend to skip over the internal negotiations of organization members around "who we are" to focus on field-level category creation and legitimation. With a focus on identity claims, these studies appear to take for granted the "internal" formation of shared understandings (i.e. what happened "before" or in conjunction with these claims is unknown).

There are however a few studies examining organizational identity formation that take a "social constructivist" perspective in which identity is believed to be socially constructed among organization members. In particular, we identify three empirical studies that we believe come closest to considering organizational identity as an everyday interactive accomplishment. Gioia, Price, Hamilton, and Thomas (2010), for example, recognize that categories, industry associations, and founders' visions are influences that delineate identity, but that do not entirely explain it. In their longitudinal study on the formation of a new school within a university, Gioia et al. (2010) develop a grounded model with a sequence of thematic phases that help "concretize" a tentative identity. These phases involve "articulating a vision," "converging on a consensual identity," and "assimilating legitimizing feedback" and are composed of eight themes.

Although providing more detail on how organizational identity is formed than social actor oriented studies, Gioia et al. (2010) still remain relatively distant from the processes studied. For example, one arguably important theme identified in their study is "negotiating identity claims." However, the authors draw mainly on second-hand accounts to provide a general understanding of how information was shared and how certain debates around organizational values occurred. In other words, they do not actually *show* or analyze specific negotiations. Organizational identity is presented overall as an ongoing process of consensus building, punctuated by certain tensions and disagreements. These tensions and disagreements are never however explicitly revealed, but merely mentioned within an abstract covering category, supported by limited narrative excerpts.

Drori et al.'s (2009) ethnographic study in an internet start-up presents a closer and thicker description of how organizational identity and legitimacy are formed. They study the life-cycle (from birth to death) of an organization involving the entrepreneur, organizational members, and stakeholders. These authors argue that organizational identity is co-produced through time by founders' strategies and scripts, influencing both internal identity attributes and external legitimation processes with stakeholders and the environment. Demonstrating how organizational actors construct certain scripts and deconstruct those that appear conflicting, Drori et al. (2009) argue that different scripts provide the basis for external legitimacy and organizational identity. Working with identity attributes and legitimation processes, Drori et al. (2009) divide these scripts into four phases of the organization's life cycle, explaining for each how internal and external members' interaction influenced identity formation. In particular, they show how ironically, as this organization pursued the construction of its external legitimacy, the ideological identity around aesthetic values that had motivated members from the beginning appeared to hamper adaptation, and ultimately contributed to the organization's demise.

Finally, Oliver and Vough (2012) examine identity formation from inception for nine entrepreneurial startups based on personal interviews with founders and employees over three years. They show how through practices of formalization (such as naming and writing business plans) and interactions with internal and external stakeholders, founders' individual identities are projected over time into "intended organizational identities" and eventually to "enacted organizational identities" that are the outcome of the practices engaged in as the firm evolves.

The three contributions offer a number of interesting and complementary insights. For example, they show how different stakeholders may influence emergent identity constructions, they reveal the existence of tensions between internally developed values instilled by founders and external demands as an organization develops (Drori et al., 2009; Vough & Oliver, 2012), and they show how organization members struggle over time to position themselves as "optimally distinctive" by expressing not only who they see themselves to be, but also who they are not (Gioia et al., 2010).

And yet, although these studies are longitudinal, studies like these have limitations because of their reliance on data that is not for the most part naturally occurring (or at least not as shown in the analysis). This presents three main limitations in terms of developing understanding about organizational identity emergence. First, representations of organizational identity offered in these studies often appear to be constructed in interactions *with the researcher*, i.e., based on the researchers' interests rather than those of the respondents. We do not have direct access to how people construct identities *with each other* in their everyday interaction. Second, although we can gain an understanding of how organizational identity is performed at a particular point in time with researchers, we have little information on how these performances are interpreted and negotiated through time. Instead of looking at identity as ongoing collective interactive accomplishments, we can see it only as individualized understandings. Third, while we acknowledge that these studies allow us to get closer to the phenomenon than those with a social actor perspective, we believe they could go closer. We suggest that going deeper into participants' natural interaction will allow further insights into how organizational identities are formed, revealing dynamics that

may underlie identity claims – it is in this way that we are able to explore organizational identity with a process ontology (Hernes, 2008; 2014). Because previous studies draw mainly on interviews (whether formal or informal), they have tended to skim the surface of micro-level interactive processes to focus on broader trends associated with the development of an emerging consensus rather than on the potentially more contentious dynamics that are likely to have preceded or underpinned it. In this way, by the nature of their data, these studies are driven towards a substantive ontology. We think that there is value in taking a closer look at the specific interactive "work" that underlies these processes. This is what we explore in this paper. To do so, we adopt a processual view of organizational identity and in particular mobilize the notion of "organizational identity work."

4.2 Organizational identity work: Towards a processual account of identity emergence

Increasingly, scholars have been viewing organizational identity in a processual manner (Schultz & Hernes, 2012; Schultz, Maguire, Langley, & Tsoukas, 2012), referring to it as an "ongoing accomplishment" (Schultz et al., 2012) or as a "flow" (Gioia & Patvardhan, 2012). While for many years, scholars debated whether organizational identity was necessarily "enduring" as in Albert and Whetten's (1985) original formulation, or whether it might change over time (Gioia, Patvardhan, Hamilton, & Corley, 2013; Gioia, Schultz, & Corley, 2000), Schultz and Hernes (2012: 2) note that understandings of the processual nature of identity have moved beyond this debate: *"An ongoing perspective on identity construction (...) shifts the focus from change versus enduring identity over time to the question of how organizational actors construct identity in an ongoing present suspended between the past and the future."* In this

paper, we adopt a processual perspective close to that expressed by Schultz and Hernes (2012), but we also emphasize the agential, effortful and potentially contested nature of individual and collective efforts to establish identity constructions in their organizations by developing on the notion of "organizational identity work."

More specifically, in this paper we define "organizational identity work" as *"ongoing individual or collective efforts to form, repair, maintain, strengthen or in other ways influence understandings of the central, distinctive, and enduring characteristics of an organization."* This concept is an extension of the notion of "identity work" used at the individual level by multiple authors (Watson, 2008; Fachin & Davel, 2015) and close to how it was defined by Sveningsson and Alvesson (2003: 1165). In bringing the notion of identity work to the organizational level, we also incorporate within it Albert and Whetten's (1985) tripartite definition of organizational identity (centrality, distinctiveness, and endurance) while rendering it more processual. With a few exceptions (e.g. Kreiner et al., 2015), the concept of organizational identity work has mainly been used previously to express field-level legitimation efforts of organizational leaders (Clegg et al., 2007). We believe however that it is particularly suitable for describing the efforts to construct organizational identity accomplished in interaction by members or other stakeholders.

4.3 Methodology

4.3.1 Research context

In order to explore how new organizational identities are formed, our study is based on a 24-month ethnography at Technica, an unusual form of high technology start-up[36]. Technica's beginnings can be traced back to 2009, when Sergei and Tom worked in the laboratory of a physiology department of a university. Researching cellular and muscular contraction, Sergei and Tom were not satisfied with the instruments available in their lab and on the market, and began developing a new measurement instrument. After several months of work, they developed a prototype for what they called the *Medisensor*. This invention soon went beyond the usage in their lab, and was very well received by peers in medical and scientific fields. The positive response led Sergei and Tom to further develop and commercialize the *Medisensor* as well as to develop similar products. They pursued this endeavor by getting together with Pierre and Mike, under the name of Technica in February 2011.

At inception, three of the co-founders (Sergei, Tom and Pierre) were motivated by the understanding that Technica should be run in an open, transparent, and democratic way, where knowledge was to be shared and made widely accessible. Mike disagreed with this view and left early on largely for this reason. However the others (and particularly Sergei) felt a dissatisfaction with the world of corporations, intellectual property, and patents, in which creators were often denied the rights to their own work. The co-founders were pursuing an alternative way of organizing which was often labelled by Sergei as "revolutionary".

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[36] The organization and its members have been given pseudonyms in this paper.

Technicans (as we shall label members of Technica) were influenced by trends such as commons-based peer production, peer-to-peer (P2P) networks, and open source hardware communities (see Benkler (2006); O'Mahony and Ferraro (2007) for more on these terms). An important agreement among Technica's founders was that, unlike these communities, Technica should be self-sustainable and that Technicans would be able to earn a living from their work (i.e. without having another job or other sources of revenue). Designing such an innovative business model soon became an important activity for some Technicans.

Indeed, while we see a number of concrete open source hardware projects at Technica, we also see innovation in the development of a business model. The development of a model to enable "playing the open game in a closed world" (Technica's website) arguably became through time a key activity at Technica. The model developed at Technica was aimed at making open source operations profitable and ensuring that financial returns were redistributed to contributors. This was new for open source (hardware and software) which often relied on voluntary enthusiasts who did not necessarily make a living from their work, but were supported by foundations, corporations, or different types of donations.

Throughout its 4-year history, the innovative potential of Technica's projects and the uniqueness of their business model has resulted in important awards, grants and recognition. Technica's sensor projects for medical applications fostered collaboration with several university professors and important research laboratories. Their business model attracted a great deal of attention. It was referred to as "an exceptional and unique case in terms of open innovation" by academics and attracted interest from

several universities. Faculty members have collaborated with Technica by co-writing grant applications, visiting funding agencies, and providing consultancy. Technica has also attracted attention in international events.

Since its foundation in February 2011 by four entrepreneurs, it had grown by March 2014, to include 10 full-time members. Beyond this, about 30 other people had influence in the organization through smaller contributions to projects and by participating in online debates about important organizational issues. This is described as an orientation towards a "long-tail distribution" (meaning the accumulation of small contributions carried out by many people, similar to Wikipedia). Table 1 provides a list of individuals referred to explicitly in this paper and their specific roles in relation to Technica.

Table 4.1 Dramatis personae

Name	Role
Sergei	Co-founder and full-time member
Pierre	Co-founder and full-time member
Tom	Co-founder and full-time member
Mike	Co-founder (left after a dispute with Sergei about the business model)
Xavier	Full-time member
Nabil	Full-time member (business graduate working on management issues)
Martin	Full-time member (ultimately left for a paying job)
Tony	Full-time member (ultimately left after a dispute with Sergei)
Joe	Full-time collaborator (developing "value accounting" software)
Mary	Full-time collaborator (developing "value accounting" software)
Nelson	Active affiliate (consultant)
Fanny	Active affiliate (marketing consultant)
Bryan	Active affiliate (interested participant)
Étienne	Active affiliate (university professor)
Vincent	Active affiliate (R&D professional)

In the context of our study, as Technica developed, we became increasingly aware of the evolving tensions between instrumental and non-instrumental conceptions of identity. A common tension in many organizations, in the case of Technica this relates to values based on openness, horizontality, and self-organization accompanied by a preoccupation for self-sustainability. While we can see that all Technicans are oriented towards these values, members vary greatly (in numbers and through time) in their views on how these terms are defined, on how they apply in everyday life and on how to the organization might become self-sustainable (i.e. to allow Technicans to earn a living without grants or donations). Our data trace interactions among members developing around these identity-related tensions.

4.3.2 Data

For this ethnographic project, the first author collected a wide array of data, such as observations, video recorded meetings, documents, and interviews. For this article, we focus on a specific subset of the data: the over 9,000 collective (i.e. "cc" to a full list) e-mails exchanged during four years, starting from the day Technica was founded. We complemented the analysis with other documents generated from or referred to in the discussion. In the course of the ethnography, these e-mails appeared to be an important arena for "organizational identity work," mainly because they are inclusive of the whole community. This medium allowed for everyone to engage in the debates, regardless of real-time availabilities, physical location, and even time zone. Also, unlike talk-in-interaction, these e-mails allow for further reflexivity, and what is said is permanently available for all Technicans. The analysis nonetheless goes beyond the e-mail text itself, since ethnographic immersion in Technica allowed for grounded-context sensitivity in

the analysis (Karreman & Alvesson, 2001; Watson, 2011). This appears in this paper through our ability to "fill-in" in the context within which things are being said.

4.3.3 Data analysis

The first step in the analysis involved selecting, from over 1600 threads, the ones that would be more relevant for a closer examination. It is important to note that before engaging in deeper analysis, we were no strangers to the material. During the course of the ethnography, we had already received and read these emails on a daily basis. In other words, we had read most of the material throughout 21 months (about 10 emails per day), and within the first months of data collection we were able to "catch-up" with all e-mails that were exchanged prior to the beginning of the fieldwork. We had identified as broader themes a tension between vision and survival.

We then focused on some specific threads, based on the number or posts and participants to perform a fine-grained analysis. We systematically looked for the topics that emerged more frequently throughout the threads. This strategy helped to avoid imposing our own understanding of what is identity-sensitive for Technica. Some of the most discussed topics in the data relate to openness, sparking many debates about not only what "open" means but also on practical issues – what to do in terms of related topics such as intellectual property, contributions, and value-tracking – and, of course, how to survive. Also, in these discussions, we can see processes of inclusion and exclusion emerging. In short, we saw ongoing interactions about what "open" means, what to do about it, and who has authority to talk or do something about it.

After screening for the most popular and relevant topics, we selected the specific conversations in which participants were more deeply engaged and how recurring was

that topic of discussion, i.e., how much similar issues resurfaced. While sometimes people were explicit about the importance of a specific discussion, we also looked for the number of participants and replies in the thread as well as the average length of their interventions (e.g. one-line responses were not considered strong engagement). Indeed, with rare exceptions, we found it difficult to see organizational identity work happening in a thread with less than ten replies and two participants. These shorter threads were nonetheless considered in terms of their place in the whole. We paid particular attention to longer threads, reasoning that heated disagreements touched issues that were viscerally important to members and might be identity-relevant, whether or not explicit references to organizational identity were manifest.

The analysis of the conversations started with an open reading, where we asked "what is going on here in terms of organizational identity," to open up possibilities for analysis (Alvesson & Kärreman, 2007). In a first stage, the first and second author conducted the analysis of a selected conversation separately, and then discussed it together. Since the first author was further immersed in the field, this strategy allowed for a different, perhaps more distant, "look" at the phenomenon. We believe that the combination of perspectives and our discussion of the material enabled us to capture a fuller slice of reality.

In this open reading, we found three main types of organizational identity work. First, a very abstract, ideologically-flavored type of talk, "jumped" right out at us. These discourses on the order of higher values and direct claims of identity were the most "visible" forms of organizational identity work in preliminary analysis of the material. Second, we found a more practical type of talk, grounded in the everyday. Although at

first this did not appear to be as strongly related to identity as the previous type, its closer analysis allowed us to see how the mundane had an important influence on identity formation. Third, we found people drawing boundaries within and around the organization for themselves and others. In this way, we could see how organizational identity construction involves an ongoing dynamic of membership. We saw not only joining and leaving the organization but also people changing their "position" with respect to the organization. By analyzing these findings in relation to the other email conversations, we also explored their interactions, and found what we label "integrative work." These three types of organizational identity work appeared as interrelated processes, and the second part of our analysis will examine in detail some those inter-relationships and show how tensions among different types of work were handled.

4.4 Organizational identity work

We identified three basic types of organizational identity work at Technica labeled "ideological work," "practice work", and "boundary work." We first present each type of work separately to understand how each is accomplished individually. Then, we examine how they may interact within our conversations, leading to what we call "integrative work" in which efforts are made to bridge the tensions among the different types of organizational identity work

4.4.1 Ideological work

Ideological work is manifest in conversations that directly refer to existential issues of who Technica was, is, or wants to become. In 48 threads, the word "identity" is even used explicitly. This appears in topic threads such as *Identity: our presentation text,*

Technica brand definition, Technica logo with the copyright symbol, Value network culture and boundary, and *Sharing ideas on how to describe Technica.*

Such conversations were often triggered by some kind of questioning from participants about what Technica was or was not in relation to categories such as "open source" or "P2P value network," and further what these particular labels really meant. For example, in the discussion "*Possible abuse of the term 'open source hardware,'* Sergei (one of the founders and a strong contributor to ideological work) brings into the group a separate e-mail discussion he is having with open source hardware "purists." In this discussion about clearly defining the term "open source" to prevent its misuse and dilution of its meaning, Sergei uses this exchange to argue how important it is "to do what we claim." Martin, a new member, finds the topic quite appropriate and grabs on the opportunity to question whether Technicans actually do what they claim to do. Martin notes that he joined Technica based mainly on the definitions he had read on the website, but that very soon after joining he saw a quite different Technica. In a way, by arguing that Technica has not ever been what some key Technicans have been claiming, he is contesting an identity claim that had been somewhat taken-for-granted.

> I'm "new" and since my first day I didn't think that Technica was Open Source. For me it is an experiment going in another direction. Open Source [unlike Technica] is strongly based in a gift economy. For me, we are Open Value and we have hard work [if we want to claim to be Open Source] because the first reaction of people like me from the Open Source side is: If it is not Open Source it is not for me. (Martin)

Sergei, in relatively long response, tries to restore the claim of Technica's openness and its endurance over time. He provides his own definition of open source and tries to reframe Technica as a "different kind," perhaps the "new way" of being open. He does so

in a rather abstract manner, theorizing around the history of humanity and linking it to

Technica's infrastructure. He tries to blur the boundaries between openness,

transparency, and participation in order to argue that Technica is (and has always been)

open source.

> […] In my opinion, open source, which means access to the source code, access to the blueprint is intimately linked to the success of Linux and Wikispeed. Now this is what we call transparency in our discussions. Open access, or openness, is access to participation. [….] TECHNICA is not an Open Source project, like Linux. TECHNICA is not a gift economy. But access to the blueprints, openness and minimal protection are required in order to have TECHNICA operate at the long tail scale. Scale is part of the new game. Why? Simple! Because the Internet shatters spatial and temporal barriers and allows value to be created at large scale, it makes it possible. Sooner or later humanity will figure out how to do that in a sustainable way. This is inevitable. Throughout history humans have built larger and larger institutions. There is nothing in the air that tells me that this tendency will be reversed. In fact, WE are trying to solve this problem with TECHNICA.

Martin finds Sergei's explanations rather ambiguous. He does not appear convinced and

is rather clear in his response: either you are open source or you are not:

> If you are Open Source then you are in the gift economy. Open Source without gift is not Open Source, it is a fraud to use the brand of Open Source [like that]. If you claim to be Open Source and you aren't, you lose your reputation and people don't participate. People in Open Source do not like these ["almost open"] kinds of projects. Besides, you can be in the long tail [a multitude of micro contributions] with a closed model, like Amazon and Google. I think we need to use the word "commons" rather than "open."

This rather long conversation further continued including Pierre, Nelson, and Joe

around the definitions and implications of using certain terms to define Technica.

Indeed, Martin suggests that Technica should define itself in more neutral terms and

avoid the word "open," a point that had also been raised by others (e.g. Nelson in the

"Patents or not strategy" thread we will see further on). Martin, who has experience in

the open source world, argues that Technicans do not do licensing as open source

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communities do and that either it should change its practice (act open) or change its discourse (no longer claim open). This issue was not resolved, and appears in many other threads.

In sum, *ideological identity work* involves abstractions and representations of what Technica is or should be. It concerns negotiations that are directly about values and claims of identity, often relating to the question "why are we here?" As we saw, it is often impregnated with ambiguities and unresolved tensions between the instrumental and the non-instrumental sides of organization. The language used in these exchanges is however somewhat different from discussions about the more mundane operational aspects of the organization. These more grounded concerns ("what we do") are also important, and we explore them in the next section.

4.4.2 Practice work

Our analysis highlights the importance of a second type of conversation that we label *practice work*. Simply put, it involves people's efforts to create, maintain, or discontinue activities and routines. In Technica, we have seen this type of work in activities such as designing products, interacting with potential clients, searching for alternative sources of funding, working out the distribution of potential revenues, and dealing with patents and intellectual property. While these activities may not "shout" organizational identity so strongly at first, we understand "how do I act?" as the interrelated implication of the question "who am I?" (Cerulo, 1997). Since practice work is virtually everywhere in organizational life, we focused on conversations on practices that are recurring and widely debated as the ones that members considered central, distinctive, and enduring about the organization. Yet, rather than being a direct negotiation of values, these are

reflections of "what we do" without necessarily an explicit link to "who we are." We can see practice work in a thread about whether Technicans should have a salary in advance of any sales. Such a topic relates to recurring discussions held from inception about how people would be able to earn a living working full-time at Technica (see more about the VAS on Chapter 3). New understandings about the meaning of contributions and risk emerged from these conversations that had important implications for Technica's identity. Salaries are a central theme that appeared in three interrelated conversations. The issue appeared prominently in the thread *Funding the infrastructure* (started August 2, 2012, with 47 posts by 12 authors). The discussion began around the development of a "value-accounting system", which involves determining how people are rewarded for their contributions (the most popular and recurrent topic of conversation, see Chapter 3). This topic soon included discussion of salaries, and was forked into *Paying for programming (previously funding the infrastructure).* In this thread, Mary (Joe's partner) draws on their (Joe and Mary's) experience to understand how contributions should be rewarded. Mary and Joe have been collaborating with Technica to develop the value-accounting system. Throughout the 16 e-mail exchanges in this thread, the notion of salary once again became important. Nelson (an on-and-off outsider who serves as an informal consultant to Technica participating in many email exchanges) suggests the possibility of "pay in advance," which is summarily rejected by Sergei, who sees it as "schizophrenic."

> **Nelson:** Perhaps we are talking about pay in advance vs pay when value is crystallized - an interesting discussion in itself - there is a risk reward trade-off here and it gets messy with mixing of current monetary system and value network economy.

> **Sergei:** Nelson, "pay in advance vs pay when value crystallized" is one of my problems. The notion of a salary doesn't match with the philosophy we're living. Getting funds and distributing them as salary to programmers to build an infrastructure for value accounting seems very schizophrenic to me.

Nelson does not appear satisfied. He starts a follow-up thread to present a counterargument to Sergei's: "Salary is incompatible with value networks" statement that had closed the previous thread. This conversation, named by Nelson as *Salary in value networks* (with 26 posts by 7 authors) is about discussing pay in advance (salaries) or after contribution. The possibility of payment of salaries, for example, appears to make Technica more like a traditional "old economy" organization and less like the unique and innovative open network of collaborators that some of its members believe it should be. The debate around this issue generated new forms of language for monetary rewards created to reconcile different perspectives. Many participants engaged in supporting salaries for various reasons, such as commitment (Nelson), survival (Étienne), and precedents (Joe). Sergei intervenes towards the end, still not agreeing with the notion of salaries, and says:

> If by "salary" you mean to give "reward" in advance of value created, based on the amount of time worked, I believe that's incompatible with the value network model that I have in mind for TECHNICA. This notion of salary implies time management, which means that someone else needs to make sure that the time paid for produces value. If we want TECHNICA to operate on the long tail, to be able to take in microcontributions from individuals across the planet, like Wikipedia does, I don't see how we can avoid abuse.

Nelson, understanding that Sergei will not so easily be convinced, clarifies and reframes it in Technica terms: "I do not think that providing a salary should be quid pro quo for owning that persons output (this is very old economy thinking), though perhaps the model should allow that parameter to be adjusted." The discussion was then moving from accepting the notion of salaries to framing it in a specifically "Technican" way.

Indeed, the word "salary" was, from the start, acknowledged not be to be the best term for it in the context of Technica. Stipend, distribution, or reward, were some of the words suggested throughout the discussion. After several rounds of reframing, Sergei agrees with a distinction without a specific term, and links this to the Value-accounting system, arguably Technica's core project more recently:

> I like the distinction introduced by Nelson:
>
> - "money received before value creation", meant to increase participation, to increase probability of value creation
>
> - "money received from value created"
>
> I think this is the first time someone clearly articulates that within TECHNICA. If nothing else, this is a very positive outcome of this discussion.
>
> NOTE that at this moment our current value accounting system is not sensitive to it!
>
> We do need to invent a new vocabulary, because old terms have connotations that are specific to the old context.

This important agreement by the co-founder on the discussion moves from whether or not there should be pay in advance of sales (and finding a term for this seemingly new practice) to how it should be done, more clearly (i.e. moving forward after agreeing on it). After the notion of salaries (although without a label yet) has been "agreed-upon," the discussion moves towards programming, monitoring, and providing a line of credit. Bryan also brings up the notion of risk and failure: "So if the network is going to pay for people who need money before a distribution, then I think the network must take on the risk of failure for that money to be repaid in contributed value." At the end of this discussion, Étienne asks: "What happens if a person takes a stipend, contributes to some activities, but never creates enough value to compensate for the stipend? Should that person stay in the network indefinitely?"

Practice work thus refers to discussion of modes of functioning and everyday activities at Technica. While these do not necessarily involve direct identity claims, practices carry with them implications about identity that can, indirectly, affect shared understandings. For example, suggesting that the organization might in some circumstances pay salaries in advance of contributions indicates that Technica actually has more in common with a "traditional economy" organization than certain organization members would prefer. Who we are and what we do are counterparts (Cerulo, 1997) that are often seen to be in tension in these conversations.

Both ideological and practice work are of course influenced by which individuals are doing them. Moreover, organizational identity is implicitly related to who is included as a member, i.e., the boundaries of the organization. We see next how these inclusionary and exclusionary processes function as another form of organizational identity work.

4.4.3 Boundary work

Boundary work refers here to work in which people implicitly or explicitly establish the boundaries of the organization – who is or is not a member and has a right to speak on its behalf. Because of Technica's "open" nature and the lack of direct employment relationships, the question of who is or who is not a "Technican" is surprisingly fluid. The explicit and implicit construction of Technica's identity was actually informed by different types of participants. These individuals had different engagements in different types of organizational identity work, with an ongoing setting of boundaries both within and around the organization. For example, ideological oriented threads had a greater appeal to "outsiders," which included people in the peer-to-peer community, academics, and other consultants interested in the discussion of a new business model. Technical

discussions, on the other hand, engaged engineers and scientists more importantly. In a way, people set, created and crossed boundaries within Technica by their "presence" and engagement in a certain discursive space.

In conversations, individuals also explicitly set *themselves* within or outside Technica's boundaries. Joe, for example, is active and working full-time on the "value-accounting system," an important project in Technica. Although deeply engaged not only in the project but also with discussions of strategy and identity, Joe consistently uses "you guys" to refer to Technicans. Sergei has made efforts to include him, which triggered Joe's reaction and efforts at clarification:

> I just wanted to clarify the distinction between TECHNICA and the value accounting software project. They are different. Although some of the same people (notably Sergei and Francois) are involved in both. We are not Technicans. We are peers.

Similarly, on another occasion, Joe dissociates himself from Technica, when boundaries once again appear blurry.

> Sergei, you did not mention the Valnet project which is a separate network from TECHNICA, although I consider you and Francois and other TECHNICAns to be part of it. How does that fit in?

In the latter passage, Joe is separating the Valnet project from Technica to make it clear that he does not see it as a project within Technica. Joe rather affiliates himself with the Valnet project than with Technica and sees himself as a peer rather than a member of Technica.

These detachment efforts appear to reduce the importance that affiliates give to organizational issues, and what is central and distinctive about it. Vincent for example explains that while he does not agree with some decisions taken at Technica, he does not

care that much about them because he is not so closely attached to the organization. Indeed, as we can see in the extract below, it goes both ways, as we can see when Vincent explains that his different views from the majority has led to his detachment from Technica.

> It does frustrate me to see wasted effort in duplicating existing hardware [reference to the Relay project], but I cannot do anything about it. And since I am not 100% involved in Technica, I just let it go and concentrate on my own business. And this is in part the reason why I am not longer as involved as I used to be.

The very definition of a "Technican" is a form of establishing boundaries. Indeed, claiming to be open, self-organizing, and horizontal attracts certain individuals and turns-off others. Being an open network, the need for a clearer definition of what constitutes a member (or affiliate) usually triggers broad discussions on ideology and strategy that end up requiring some kind of knowledge about who and what constitutes a "Technican." Indeed, Technica is understood to have fluid boundaries within and around it. Nelson refers to this dynamic as a "membrane," a metaphor that has been adopted by many Technicans and appears in the *New Members Handbook,* where it is defined as "a flexible boundary around groups, spaces, projects, etc."

Indeed, organizational identity work includes defining and understanding who is meant by the pronoun "we."? When Joe and Mary use "we," they mostly refer to themselves, not to Technicans. The use of the pronoun "we" is not so straightforward not only for our own analysis but also for participants themselves. Mary, for example, questions who "counts" as "we," in a reply to Sergei:

> Sergei, we [Joe and I] were not clear on what you [Sergei] meant by "Should we start paying for programming?" Does "we" in that sentence mean (a) "TECHNICA paying for programming work from sensor-based income? [excluding Joe and

Mary] Or does "we" mean (b) the network concerned with and working on the value accounting system and other infrastructure activities? [including Joe and Mary]

Boundaries are also worked in relation to others, not only through an ongoing definition of what being a "Technican" means, but also about how people include and exclude others from the "we." Participants in a conversation are often included in Technica without their "consent." For example, in bringing up within the community (i.e., the email list) the issue of whether or not Technica should patent their products, Pierre, one of the founders addresses members with "Dear Technicans," inviting people to associate with that label. The use of "we" was used extensively in this message, except when Pierre clearly manifested his own opinion, recognizing that it could be his point of divergence with his understanding of "we."

As an open value network, Technica is open to virtually anyone who wants to join and contribute in any way they can. Indeed, in earlier phases, Sergei had repeated that one becomes a Technican by submitting the form on the "contact us" page. Being virtually fully open from the start, efforts in setting boundaries around Technica would tend to be seen as closing it down. We see this when Martin works towards excluding people with a "classical business" mindset. In a reply to a more market-oriented comment made by Bryan, Martin commented: "Bye bye friend because we are going in the other direction, this isn't the classical model and it's not for you." Martin sets up stronger boundaries by suggesting not only that Bryan but classical-minded people like Bryan are not welcome at Technica.

In short, as an open network organization, the boundaries of Technica are inherently fluid – who is in and who is out is never quite clear, and are constructed as an individual

and collective choice. As we analyzed the messages in conversations, we noticed that individuals often made statements that situated themselves or others as insiders or outsiders, sometimes in rather surprising ways. This process of including or excluding that might vary over time is directly relevant to individuals' identities, but indirectly also to organizational identity because it projects understandings of organizational boundaries – who "*we*" are (i.e., who is in and who is out and to what extent and when) clearly dynamically constitutes "*who* we are."

4.4.4 Integrative work

Overall, we see that the three types of identity work discussed so far in isolation are complementary. *Ideological identity work* involves constructing an ever shifting but largely coherent narrative, often masking the tensions and ambiguities surrounding who or what Technica is becoming (and in particular where it fits in between a traditional for-profit business and a democratic open network). *Practice work* reveals these everyday tensions in the moment – yet at the same time allows the emergence of specific concrete agreements and arrangements that have identity implications. *Boundary work* dynamically reconstitutes organizational identity by shifting the boundaries of inclusion as well as the tensions to be absorbed within them.

Moreover, we can see implicitly throughout the examples that the three types of work clearly interact with each other. For example, practice work can easily turn into ideological work when people refer to principles in order to decide what it is legitimate to do. Both practice work and ideological work may have boundary (or membership) implications, as for example when Martin declares that if Technica is not "really open," it is not for him (and open source people like him). We now explore in more depth these

interrelations and focus in particular on work performed to integrate ideological, practice and boundary work – that we call "integrative work,"

Integrative work involves deliberately aligning a type of work with other types with a more direct focus on their interrelation. Since there is rarely debate over issues that appear to be agreed-upon, we often see in these conversations the creation and working out of mismatches of somewhat taken-for-granted values in the face of more pragmatic, "real-world" concerns.

One way we observed of integrating practice work and ideological work is to focus on some apparently mundane activity and using it to make an ideological "identity point" about it. For example, in the following passage, Sergei makes a great deal about the co-writing of a document, constructing what appears to be a relatively simple task as something quite grandiose. In this way, he attempts to mutually reinforce the activity performed with the value of co-creation. By doing so, Sergei is able to highlight the advantage of being an open organization (ideological work) in which things can get done quickly (practice work) because "outsiders" can easily contribute (boundary work).

In this case, Sergei refers to the writing of a two-page letter to representatives of a governmental employment center that had the objective of attracting new members. The procedure appeared to us authors as something quite simple: this letter was written by Sergei, was later revised by Sonja and Yvette, and proofread by Tyler at the end. Sergei however sees it as a "great example of co-creation," framing this everyday activity with action labels and buzzwords. Sergei, perhaps in reaction to recent questionings about

the inefficiency of a horizontal structure in get the job done, charges this rather

mundane activity with a lot meaning:

> Let's stop for a moment and think about this [writing this letter].
>
> WHAT A GREAT EXAMPLE OF CO-CREATION!
>
> **initiative** - I took the initiative to create this letter
>
> **space** - I created a shareable document, a space for collaboration, for co-creation
>
> **mining of previous work** - I gather info from a few Google Docs by searching some keywords and dumped it into the space
>
> **structuring** - I formatted the space, creating sub-spaces where others can easily find info, sub-spaces where others can take action (edit), etc.
>
> **broadcast need** - I called for help, explaining what's needed in a context, in order to let others understand the importance of the work and where it all fits on the grand scheme of things
>
> **remix** - Yvette answered the call, took all the mined info and remixed it into a few paragraphs, producing a rough draft.
>
> **refine** - myself and Sonja took Yvette paragraphs and remixed them into something shorter.
>
> **polish** - Sonja put the final touch on it
>
> **quality control** - Tyler read it and expressed his satisfaction

The most interesting examples of "integrative work" occur however when participants

encounter tensions between different kinds of work accomplished previously and

struggle to discursively "arrange" them in order to create coherence or integration

despite these tensions. We illustrate this type of work with the case of Nelson. Nelson

appears in many of the conversations in our dataset to rearrange what people have said

through the interactive discussions. He often "waits" for people to voice their opinions

then to articulate them, and even appears to avoid making claims directly of what

Technica is or should be about. Nelson is nonetheless a very influential affiliate,

particularly when there are conflicting opinions (i.e. involving a plurality of ideological, practice, and boundary work) among key members. As we can see in Figure 4.1, in *integrative work* the individual detaches him or herself from any particular side, somewhat in a neutral position, enabling him or herself to act directly on other people's constructions rather than providing new ones.

Figure 4.1: Integrative work
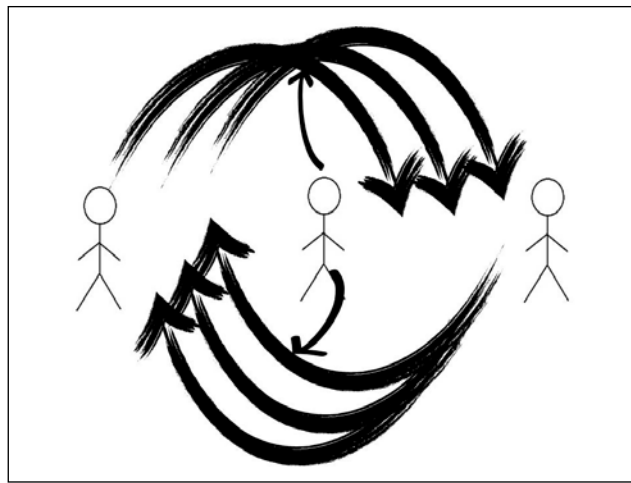
We illustrate this integrative work by following the discussion about a knowledge management system. The thread starts with Sergei proposing to "choose a content management tool, decide for a structure that maps our reality, and interface between the info/knowledge system and the value accounting system." As we can read further on, Sergei points out that a decision about this system (practice work) is related to the definition of core values (ideological work) and access to participation (boundary work). So, to sort these out, he proposes a "debate around openness (access for participation), transparency (access to information [...]), and protection (some form of licensing)." Arguing that "we need to delineate the space defined by these parameters," Sergei closes

his message by asking: "What is our ultimate goal? What are the best means to reach it? How fast can we reach our goals?" He argues that the answer to these questions "will determine how the management system will be set up."

In a response, Pierre finds Sergei's proposition "Wonderful!" on the one hand, because "this easy access to information may resolve the present problems we have when it's time to coordinate" (practice work). Pierre however disagrees with Sergei about the degree of openness (boundary work), and argues for more closure as "technical knowledge should remain in the intracellular membrane of Technica." This closing up of boundaries, Pierre explains, is due to a practical difficulty because "protection (some form of licensing) is our big big big weakness now, as we don't know much about licenses." Then, the definition of "openness" (ideology work) would be redefined. According to Pierre, "openness" would be about "how long new members have to wait before being able to see all the knowledge." In a way, then, at this point the discussion involves some mutually dependent, seemingly contradictory definitions about ideology, practice, and boundaries that do not appear to "fit" together and thus how to set up the knowledge management system seems to get further from being resolved.

 That is until Nelson joins the conversation and articulates these rather disconnected and seemingly contradictory sets of understandings related to the knowledge management system. Nelson does this by bringing together points that had already been made before:

> I would echo Sergei's note about transparency. Identity is the key to everything else. The openness is that anyone can join the commons by agreeing to the value network agreement (everyone who has signed to agree to the way value is distributed within this commons may now add value to all things owned by the

commons (decreasing value is more interesting but left aside for the moment)). The value network is otherwise closed to the outside world and protected by IP, opaqueness and any other required protections from the takers (except those things they have open sourced for strategic reasons). So think of it as **a castle where the front door is always open** to people who agree to the constitution on the way in (authors' emphasis).

In the extract above we can see how Nelson articulates previous ideological, practice, and boundary work in the form of an overarching metaphor: the *"castle where the front door is always open."* More precisely, he provides coherence to previous organizational identity work efforts that were assembled in a conflicting way. Nelson's integrative work puts together other people's work, including their claims of openness (ideological work), their pragmatic need for mechanisms of protection (practice work) that determine and are determined by who is an insider and outsider (boundary work). Note that while Nelson does not make new claims about who Technica is directly, he is very influential, acting as a sensemaker for the collective.

Nelson's integrative work, articulating other member's opinions, does not immediately close the discussion. Indeed, his constructions are soon questioned. Sergei questions Nelson by asking: "applying some form of protection would be a nice solution in a perfect world, but is it effective? Do we have money to do anything about it in a global economy?" Martin also manifests some concerns, and replies to Nelson by saying that "this is not the path. Too much fear closes the system and the doors for participation and community creation." So, in a way, by poking into certain elements of Nelson's previous intervention, Sergei and Martin appear to be disintegrating the work performed by Nelson.

Nelson then refines his integrative work by addressing concerns that have arisen, patching things up again. First, in a response to Sergei's concerns about protection, Nelson refines his castle metaphor and more precisely and where it applies.

> The castle I refer to is only around assets and IP. The fact that you cannot afford to exercise your IPR leans us toward opacity as a solution for IP. Moreover if being transparent in a first to file environment, you may find yourself needing to license your own IP from someone else. Filing is in my mind absolutely necessary, regardless of your inability to defend.

Then, Nelson replies to Martin's concerns about participation and community creation by arguing that some degree of closedness is, paradoxically, important for people to join and thus grow the community.

> People should be rewarded for the value they have added. This precludes many forms of open source, which is giving things away. Giving things away may in fact be an exchange of value but we must be clear about our goals in doing so (strategic). You have outlined some reasons (awareness, attention). [...] Please be certain I am in favor of absolute openness with those who have signed up for the value network and its agreement including the value equation (which if respected obviates the need for IP as IP rights become natural rights as they should always have been, but we lacked the scaling mechanisms for value accounting beyond small town living).

While through his efforts to bridge the tensions underlying different forms of organizational identity work, Nelson appears at times more influential than the co-founders, wrapping up discussions and having his ideas formalized in documents, we note paradoxically and at the same an ongoing effort to set himself outside of the boundaries of Technica. While in the present discussion Nelson argues having "no concerns with the actual choice [of a knowledge management system] (immaterial at this point)" and that, further on in a reference to actual members, "those that have shown they give a shit about this decision [about the knowledge system] have made a decision," it appears that Nelson's integrative work goes in tandem with his exclusion

from Technica. Indeed, we have seen this distancing in previous threads where he performs integrative work as in "anyhow, no more time right now – hopefully this lights some bulbs" (in "Work and Contracting agreements" 09/2011), " maybe if I get myself fired for not paying enough attention to my real job, I will be able to spend more time with you :- " (in "Things are moving," 11/2011), and "so much to say on this thread but have a child on my arm for whom cat videos are more important than this critical discussion (in "The value equation" 03/2012). Still, his insights are influential in others' conversations. For example, his "castle" metaphor (with the door open, closed, or in somewhere in between) informed the 43 email long discussion about the understanding of Technica as an open source organization ("OSH Day," 03/2013).

In short, we see any form of identity work as having a direct or indirect effect on other types of work. In particular, integrative work involving individual's efforts to integrate ideological, practice, and boundary work by putting together the work performed by others appears to be an important form of identity work. However, as we have seen, this integration is never permanent. There were repeated ongoing efforts to hold together these different and often conflicting performances of organizational identity work. Furthermore, paradoxically, through their integrative work, peripheral individuals who do not or cannot make direct claims of belonging to an organizational identity are able to exert significant influence on evolving organizational identity constructions.

4.5 Discussion and conclusion

The main objective of this study was to explore real-time and naturally-occurring processes of emergence of organizational identity. In particular, we examined on-line conversations as the loci of everyday identity formation. This facilitates our

understanding of the often contentious and never ending dynamics involved in the process of identity construction.

In this discussion we begin by comparing our findings based on a process perspective with previous more entity-based understandings of organizational identity formation. Second, we discuss how the set of forms of identity work *(ideological, practice,* and *boundary work)* pinpointed within our study enriches our understanding of identity formation as a process. Third, we discuss individual agency in relation to organizational identity construction. Fourth, we highlight how these data enable us to conceptualize organizational identity emergence as a series of tensions underlying surface-level agreements. We close by considering the relevance of our findings for more "traditional" or "mainstream" organizational forms.

4.5.1 Organization identity formation as process

Based on our study that follows closely, from inception, people's identity work in the everyday, we question the commonly held assumption that organizational identity must necessarily "crystallize" through successive steps of reification. Fiol and Romanelli (2012) consider, for example, that interaction, sensemaking, and storytelling first take place "before identity" and then appear under an umbrella identity when a certain level of identification is achieved. The assumption here seems to be that there are "identity states" and "non-identity states," often with some kind of "in-between" states (Corley & Gioia, 2004; Gioia et al., 2010).

In contrast, we show how through *ideological, practice,* and *boundary work,* organizational identity formation is, ontologically, a process, enriching the literature that has begun to take a process perspective on organizational identity (Schultz &

Hernes, 2012; Schultz et al., 2012) by revealing the micro-level interactions that constitute it. While previous studies identify a set of steps by which an organizational identity is eventually stabilized and thus "formed," we were able to see how the ongoing work of individuals "results" in the temporary appearance of central, distinctive, and enduring features of the organization that are then constantly renegotiated with every successive interaction. In other words, rather than seeing organizational identity formation as the achievement of some kind of stability, as a move through time towards the other end of a continuum, we focus on organizational identity work as the ongoing efforts to achieve (an unachievable) stability.

Indeed, in our case, individuals worked hard to form and maintain a sense of stability. In other words, stability is not taken for granted. We were able to demonstrate how through *ideological, practice, boundary, and integrative work,* people are constantly "patching up" understandings to make the organization appear coherent and meaningful (even if only until the next email arrives). In this way, we move away from the concern of an organizational identity reaching a stable form (Gioia et al., 2010) to focus on the ongoing work carried out to give some sense to sometimes confusing and even chaotic organizing. We further develop this through the articulation of the three types of work presented in our study.

4.5.2 Ideological, practice, and boundary work constructing identity together

Throughout these conversations, we often saw a tension between ideological, practice, and boundary work. Most of the 1600 threads that we analyzed that included this

tension did not offer a resolution per se, but were rather a virtually endless "patching up" through time.

While there are many studies focusing on identity construction as one kind of work (mainly ideological work at the level of values) we saw movements towards cohesion when different forms of work were articulated together in a meaningful way. In particular, we saw how such articulations, either by a single member or in interaction, were able to turn seemingly opposing views into a new perspective. Rather than appearing through compromise or consensus building, understandings that did not "exist" before the discussion had started to appear in the articulation of these three types of work together in what we call integrative work.

 For example, in the discussion about salaries, the recognition that newcomers were required to take disproportionate risks emerged in interaction as an explanation for why people were hesitating to join Technica. This new understanding oriented the discussion about rewarding people's contribution as people argued for solidarity mechanisms (practice work) so that "outsiders" would be more likely to join (boundary work); all this grounded also in an emerging philosophical understanding that risks should be assumed by the collective rather than by the individual (ideological work).

Based on our study, we argue that the organization is always, implicitly or explicitly, in tension, requiring the ongoing articulation of *ideological, practice,* and *boundary* work. We saw how combinatory constructions (such as the castle metaphor put forward by Nelson) allowed for individuals to remain attached to the organization despite tensions and differences. People often appeared to actively assemble and dissemble *ideological,*

practice, and *boundary work* without performing these kinds of work directly, just drawing dialogically from work that had already been performed by others.

4.5.3 Integrative work and agency

While we understand that organizational identity work most often comes from the top of an organization (Clegg et al., 2007), we were also able to see how certain individuals can surprisingly gain agency to construct organizational identity by distancing themselves from the core. We saw this with the case of Nelson who works towards being an "outsider." Unlike core members who have (or are expected to have) an opinion about what the organization is about, Nelson's distance-taking allowed him to be seen as a somewhat "neutral" individual, putting him in a position that enabled him to articulate and reconcile the understandings of other influential individuals (*integrative work*). It would for example have been more difficult to someone more central to the organization and associated with previous forms of identity work to play this role.

The agency to engage in integrative work thus seems to arise from the avoidance of personal engagement in ideological and practice work, combined with the performance of a kind of boundary work that establishes the individual as an outsider. While core members have, and are often expected to have, a say about key organizational issues, peripheral individuals do not always have or want a say. By being positioned on the "outside" they are able to construct the organization by articulating the work performed by more legitimate members. This paradoxical role may be particularly associated with pluralistic settings with a flatter structures where the role of a neutral and legitimate third party can bridge internal tensions.

4.5.4 Identity work beyond consensus: shifting positive and negative constructions

Identity work is mostly seen as a process in which individuals engage in constructing a distinct, coherent, and positive identity for themselves (Sveningsson & Alvesson, 2003) and their organizations (Clegg et al., 2007). In empirical studies, since identity work is mainly performed to a researcher in an interview setting, we are limited in our capacity to explain how these constructions are made sense of and negotiated by participants through time. While most studies focus on performance of identity work in relatively short periods of time, we were able to see in our study how previously positive constructions could start to be seen negatively as other interrelated processes evolved.

We saw identity work over time when Martin questioned the intense ideological work that had been done on "openness" before he joined Technica. Martin argued that these identity claims were not being met in practice. In that conversation, when Martin suggested that these claims could even constitute fraud, the ideological work on openness, open source, etc. started to be questioned. Because Martin performed practice work to argue that many of the taken-for-granted doings were not representative of what people actually do in "real" open organizations, the work that had been previously performed started to take upon new meanings.

Our point is not to question whether a type of work (ideology, practice, or boundary) was ill-performed, but how they relate to each other. We see for example that the discrepancies between practices and membership were destructive when not addressed when expected. Indeed, new members, with diverse backgrounds and somewhat fresher understandings, were able to deconstruct understandings that had been taken-for-

granted. Similarly, we have seen how the performance of *integrative work* does not introduce new understandings about the organization directly; it is rather work directed at collective sensemaking of previous, rather individualized, understandings. In this way, organizational identity work that had been previously performed gains a new meaning as it is placed in a different relationship to other organizational identity work.

In this way, we were able to see movements towards cohesion as well as disruption in efforts of aligning *ideology, practice,* and *boundary work*. In our case, we can see how the construction of misalignments lead to tensions which, while providing space for the creation new understandings, also had negative effects such as unproductive conflict and decreased affiliation. We further develop on tensions in organizational identity formation in the point below.

In other words, based on our understanding of processes of *ideological, practice,* and *boundary work,* we question other scholars' emphasis on consensus around organizational identity as well as the assumption that an organizational identity can be "fully formed" (Fiol & Romanelli, 2012; Gioia et al., 2013). In our case study we found a great deal of agreement and perhaps even a consensus around identity claims (as a label), where values such as openness, horizontality, and self-sustainability appeared. This agreement, however, only appeared on the surface. Going deeper into the phenomenon and into everyday interactions, we saw ongoing, potentially endless, and sometimes hopeless, tensions and negotiations. Our fine grained analysis of naturally-occurring conversations allows us to go beyond the appearance of ongoing cohesion to see how such cohesion is constituted while at the same time remaining fragile and contingent based on everyday negotiation.

4.5.5 Boundary conditions and transferability

While Technica is indeed a fairly unique organization, we believe that several aspects

our findings are transferable to other settings, notably at the level of the processes

observed. Even in more "traditional" types of firms, we suggest that organizational

identity formation is likely to involve the interaction of ideological, practice, and

boundary work. In a start-up where the founder is the leader in a more traditional type

of hierarchy, we might not have seen so many inclusive debates on sensitive issues. Yet

however performed, we suggest that there will nonetheless be a similar type of

interaction between these different types of identity work. Considering our particular

empirical setting that promotes openness and limited hierarchy, our findings are

however likely to be most relevant in pluralistic settings, more specifically in cases

where many members have legitimacy to argue about what is important for the

organization, as in our case.

4.5.6 Further research

We believe that further research could explore, in different settings and with different

data, different forms through which *integrative work* happens. For example, a

corporate setting may provide actors with different possibilities and constraints to

perform *integrative work*, perhaps offering less agency for individuals to shift in and

around boundaries (or do so differently). Similarly, studies where individuals publicly

project the organization on its behalf or talk about "who we are" in "external"

interactions, while detaching (or not) themselves from this "we," may reveal other ways

through which a panoply of understandings are integrated.

In conclusion, we showed in this paper how individuals in everyday organizational life perform ideological, practice, boundary and integrative work as they struggle to create and maintain organizational identity. We suggest that the shift in perspective from "organizational identity" to "organizational identity work" enables us to better understand the effort and struggle that underlies the allure of coherence and shared understandings, and enables a much more fully processual view of organizational identity, answering several recent calls in the literature (Gioia & Patvardhan, 2012; Pratt, 2012; Schultz & Hernes, 2012; Schultz et al., 2012). We argue that organizational identity is never fully "formed" in the sense of reaching a stable state since it is reconstructed in each interaction. Our study reveals the efforts people deploy to achieve an organizational identity that is forever slipping away as one works towards it. The literature on organizational identity could further benefit from what others have labeled the "turn to work" (Phillips & Lawrence, 2012) in order to more fully capture the underlying dynamics of organizational identity formation.

5. Idle hands are the devil's tools: Organizational identity work breaking organization apart

Abstract

This paper explores how individuals' everyday efforts to influence understandings of "who we are" and "what we do" as an organization enable cohesion among individuals with different perspectives and priorities. Studies on organizational identity and identification argue that cohesion is facilitated through people's efforts to converge upon that which is central, distinctive and enduring about the organization, reducing ambiguity and enabling collective identification. Another stream of studies counterargues that efforts to accommodate divergence through ambiguity and managing tensions enable cohesion at the organizational level. Based on a 4-year ethnographic case study of an entrepreneurial peer-to-peer organization from inception, I demonstrate how the processes described in these two streams of research risk breaking an organization apart. I argue that organization is held together by processes that, paradoxically, keep organization ephemeral and understandings and people apart, allowing for organizational identity work to keep on being performed.

We define ourselves, our occupations, and our organizations more often than we may realize. Anytime we present ourselves, we are unlikely to get away without conveying any information about "who we are." It would be inconceivable, for example, for entrepreneurs to set up a website, interact with clients, and obtain funding without some definition of what their endeavor is about. Indeed, there is a great deal of institutional pressure to provide definitions (DiMaggio & Powell, 1983) and coherence (Patvardhan et al., 2015). It is as if we have no choice but to construct and project identities.

Some studies argue that through the construction of this sense of "we-ness," members' convergence on values and practices enables commitment, cohesion, and collaboration. In these studies, being an organizational member is about having a concern for "who we are as an organization." Organizational identity is about a convergence towards central, distinctive, and enduring features of the organization (Albert & Whetten, 1985) through a dynamic set of discursive constructions offered by people who "join in the dance." (Hatch & Schultz, 2002: 1004). Studies that deal with organizational identity formation from inception present the phases through which the pluralism at the beginning of an endeavor passes to become a cohesive whole. As ambiguity is eliminated, identification is strengthened, holding the organization together (Gioia et al., 2010; Fiol & Romanelli, 2012).

Other studies however develop the counterargument that an organization is held together by using ambiguity to accommodate divergence. Rather than being negative, ambiguity and tension are seen to allow for multiple interpretations of an issue to co-exist, enabling inclusion and facilitating change through "unified diversity" (Eisenberg,

1984: 231). In these studies, ambiguity appears as instrumental in accommodating divergent views, particularly in settings where power is diffuse and individuals present multiple conflicting objectives for the organization (Abdallah & Langley, 2014; Denis et al., 2011). Indeed, that which the feature that appears as central, distinctive, and enduring for these types of organization is their pluralism. In these cases, an organization is held together through the creation and maintenance of ambiguity rather than the elimination of it.

Thus, these studies talk about cohesion as individuals' efforts to *narrow* or *widen* possibilities for interpretation and definition. Both streams of research consider "ongoing individual or collective efforts that form, repair, maintain, strengthen or otherwise influence understandings of the central, distinctive, and enduring characteristics of an organization," which is how I define organizational identity work. With few exceptions, previous studies have focused on leaders' efforts, particularly in moments of extremity-crisis, change, and even anxiety, to stabilize understandings about the organization. But in mundane organizational life, how is organizational identity work performed? More precisely, I ask: *How does people's organizational identity work in the everyday enable cohesion among individuals with different perspectives and priorities?*

Based on an ethnographic case study in a peer-to-peer emerging organization, I argue that organization is, paradoxically, held together by overlapping processes that keep individuals apart while understandings about that which is central and distinctive are worked out as ephemeral and open to revision. I show how lacking interest in "who we are," disagreeing about core values and practices, and allowing others to define the

organization while widening the divide in members' understandings, are instrumental in keeping organization going. Because organizational identity work is a co-construction, requiring people, these processes enable co-authorships to be sustained.

Furthermore, I demonstrate how the processes presented in previous studies risk breaking organizations apart. My findings indicate that as an organization becomes the "target" of organizational identity work, it can fade away. In this case study, as discursive resources to construct a "we" became constrained, organizational identity work defaulted to definitions from some individuals within the organization. While this fragmenting enabled making sense of core issues and agreements upon that which is central and distinctive about the organization, other individuals were no longer "seeing" themselves as fitting into this increasingly consensual, stronger, and enduring understanding of the organization which they have been co-authoring.

This paper is structured as follow. First, I review studies on organizational identity and identification formation as well as studies on ambiguity, tensions, and dysfunctions. Second, in the methods section, I present my longitudinal study at Technica, founded, in 2011, using data from 2008 to 2014. Third, I present my findings. Fourth, I discuss and conclude with insights for debates on organizational identity and strategic ambiguity literatures and present suggestions for further research.

5.1 Towards cohesion: Two competing pathways

This literature review is divided in two parts: a) organizational identity and identification and b) and strategic ambiguity, tensions, and dysfunctions. Both literatures talk about different and contradicting sets of processes through which unity

is achieved. While the former argues that cohesion is about convergence through the *narrowing* of the possibilities of interpretation, the latter argues that convergence is instead about *widening* interpretations of the organization, to accommodate divergence through ambiguity. I review these studies below.

5.1.1 Organizational identity formation: Work towards convergence and stability (narrowing definitions)

Organizational identity is widely described in terms of a convergence towards central, distinctive and enduring features of the organization (Albert & Whetten, 1985). It is about a sense of "we-ness," with an emphasis on "the similarities and shared attributes around which group members coalesce" (Cerulo, 1997: 386) and "as a combined, stakeholder construction drawing on the value of 'reference others' and informing the identity of organizational members to varying degrees" (Oliver et al., 2010: 428). These shared understandings about the organization affect people's interpretation, action, and commitment through the *narrowing* of possibilities of interpretation.

While studies of identity *of* organizations assume a single and unified identity from the outset with a focus on field-level legitimation processes (Clegg et al., 2007), studies of identity *in* organizations look at these members' agreements or shared understandings about "who we are" and "what we do" as an organization. Not taking internal coherence and cohesion for granted, they explore its formation. These studies are often labeled "social constructionist" and focus on how people converge from an initial state of ambiguity, confusion, and devoid of meaning.

For Gioia et al. (2010), organizational identity formation is about forming a consensus. These authors followed from inception the formation of the College of Interdisciplinary

Studies, a new school at State University. These authors describe how this "initially ill-formed core identity" (p. 36) became a "new organizational identity" (p. 37). These authors explain this process by identifying a series of phases, starting with the articulation of a vision as a broad guide to form the basis of what the organization is about. Through time, these broader understandings are delineated, refined, and negotiated, until "a consensual identity eventually emerged" (p. 23). Disagreements and tensions are resolved through achieving a "consensus about what was central, distinctive, and expected to characterize the organization over the long run" (p. 23).

Similarly, Fiol and Romanelli (2012: 600) argue that "ambiguity requires resolution." For these authors, eliminating ambiguity appears to be a necessary condition that enables agreements to be reached for the formation of a collective or organizational identity . Explaining how a group of dispersed enthusiasts can build identification towards a collective identity, these authors focus on storytelling as a way to "generate meaning for discordant and seemingly disjointed events." Fiol and Romanelli (2012) add that, through time, as individuals develop stronger identification and pluralism moves towards unity, they are able to form and stabilize a collective identity.

Corley and Gioia (2004) also treat ambiguity as something to be resolved. Their case is the spin-off of Bozkinetic, a unit of Bozco. This spin-off triggered questions and doubts about "who we are as an organization," and how "we [Bozco]" are not like them [Bozkinetic]." These authors present the state of ambiguity resulting from the spin-off as one requiring resolution, and focus on organizational leaders' sensegiving efforts to address meaning voids. As they describe the desired future image as well as differences and similarities between Bozco and Bozkinetic, Bozco's leaders restore its identity

stability. Corley and Gioia (2004) thus present us with the transition from a pre-spin-off identity to a post-spin-off identity, passing through the resolution of an intermediate phase of ambiguity. If we see these stories as three act dramas, the studies present the structure as stability, tension, and resolution.

Schultz and Hernes' (2013: 6) study about the LEGO Group takes a temporal perspective to explore how managers construct past, present, and future in an "ongoing process of self-critical analysis" as they were "searching for reasons why the company was having problems." These authors demonstrate how middle-management teams engaged in an elaboration of the past to provide a sense of stability in the present, thereby enable the redefinition of mission, vision, and beliefs in relation to stakeholders. Organizational identity work here draws from temporal discursive resources that enable the restoration of foundational values in the present by promoting coherent claims for the future.

In short, these studies discuss how organizational identity formation is about cohesion, coherence, and shared agreements. This process of moving towards stability involves the resolution of ambiguities, tensions, and discrepancies. With few exceptions, these sensemaking and sensegiving efforts are concentrated in top management, particularly appearing in interviews during periods of crisis and confusion. In these studies, resolving contradictions, tensions and ambiguities, *narrowing* the possibilities of interpretation regularly appears, to promote coherence and stabilize the organization. There are, however, other studies that argue quite the opposite, as we will see below.

5.1.2 Ambiguity and dysfunctionality: Unification and cohesion by diversity and tensions (widening definitions)

As a counterpoint to literatures on organizational identity and identification that argue that formation and cohesion occur through a gradual elimination of ambiguity, some studies argue that it is precisely ambiguities, tensions, or dysfunctions that hold organizations together. These are studies about moving from the singular to the plural because they analyze efforts invested in *widening* the possibilities of interpretation to enable accommodation of divergence.

Patvardhan et al.'s (2015: 429) study of identity in an emerging collective of organizations suggests that the collective needed to create a "tent big enough to accommodate a range of entities with diverse meanings and practices, but with enough commonalities that members see themselves (and have others see them) as belonging inside the tent." However, these authors point out that a "consensus on meanings is arguably imperative at the organizational level." They explain that "a collective of organizations is different. There is no common hierarchy, no transactional interdependence, nor agreement on shared means and meanings."

Some studies disagree by suggesting that this ambiguity enables the accommodation of divergences at the organizational level as well. Eisenberg (1984) argues that, because ambiguity creates space for interpretation, its strategic use can help hold organization together. Eisenberg (1984: 230) talks about how "individuals use ambiguity purposefully to accomplish their goals" which he considers, "essential to organizing because it promotes unified diversity."

In this way, divergent and conflicting views about the organization can co-exist because ambiguity helps to accommodate them. Indeed, studies of strategic ambiguity move away from notions of cohesion achieved through clarity and convergence. They suggest that, particularly in pluralistic settings, the deliberate use of strategically ambiguous texts can accommodate differences in values and objectives as they enable multiple interpretations (Abdallah & Langley, 2014; Fenton & Langley; 2011; Denis et al., 2011)

Ashforth and Reingen (2014: 475) take a different focus, and explore how dualities and underlying tensions and dysfunctions are "managed and engaged in day-to-day governance and activities" to sustain the organization. In their study of a natural food cooperative, these authors identify groups that they label "idealists" and "pragmatists," each with different and often conflicting priorities for the organization who engaged in power plays, rituals, and other efforts "that helped sustain the organization itself in the midst of conflict and the messiness of the process" (Ashforth & Reingen, 2014: 484). In their study, these dysfunctionalities and tensions at the group level enabled the maintenance of the organization. In short, these two conflicting and uncompromising groups were necessary for organization to continue.

These studies show us that people working to promote ambiguity, tensions, and dysfunctions can actually help in keeping the organization together. Some go further to suggest that convergence can lead to exclusion, and conversely that inserting ambiguity leads to inclusion. In a way, these studies are about diluting the definition of organizational identity and *widening* possibilities of interpretation. In other words, organizational identity work is work performed to include the multiple viewpoints necessary for organizing. According to these studies, how individuals manage ambiguity

and dysfunction is the work that holds organization together. While these studies focus on individual action to explain how people actively manage tensions and create ambiguity, they overlook how ambiguity is generated in the very course of everyday organizing with others. These are the dynamics I explore.

In sum, while some studies argue that organization is held together through efforts to eliminate ambiguity and *narrow* definitions, other studies argue that the process is rather about people actively *widening* definitions, by deploying efforts to generate ambiguity and manage tensions to keep the plurality together. Organizational identity work can promote both convergence and divergence, the "direction" being a matter of collective self-reflection and meaning-making. With an ethnographic case study following a peer-to-peer organization from inception, I explore the process through which organizational identity work in everyday interaction enables cohesion among individuals with different perspectives and priorities.

5.2 Methods

5.2.1 Empirical setting

This longitudinal study takes place in Technica, an entrepreneurial peer-to-peer organization that has garnered many awards, prizes, grants, and recognition for both its innovative business model and its medical applications projects and prototypes. In 2009 the co-founders Sergei and Tom were working as researchers in the physiology lab of a university when they developed the prototype of the *Medisensor*. This project was well received by peers in the scientific fields. Sergei and Tom got together with Pierre and Mike to further develop and commercialize this technology, founding Technica in February 2011.

Technica was not only about making sensors. It was about making sensors in a

shareable, peer-to-peer way, an orientation championed by Sergei's active involvement

in anti-capitalistic social movements. In Technica, decision-making was based on

consensus, without a boss. Furthermore, at Technica, there were no formal mechanisms

for coercion or incentives or salaries. Members were expected to be paid when revenues

are generated and distributed based on a peer-reviewed process. All types of

contribution were considered for this distribution, from research and development on

sensors to participating in a meeting to discuss new economic trends. Technica had an

average of 5 people physically working simultaneously at the lab and by March 2014 had

reached 120 affiliates listed on their website. Table 1 is a list of members who appear in

this paper (based on their involvement at Technica).

Table 5.1 Dramatis personae

Name	Role
Sergei	Co-founder and full-time member (radiobiologist and social activist)
Pierre	Co-founder and full-time member (radiobiologist)
Tom	Co-founder and full-time member (biologist)
Mike	Co-founder (resigned in the first month) (business consultant)
Joshua	Almost co-founder and full-time member (engineer)
Nabil	Full-time member (MBA student)
Joe	Full-time member(software programmer)
Mary	Full-time member (software programmer)
Martin	Full-time member (open source enthusiast)
Kevin	Part-time affiliate (involved in project of sensors for food production)
Nelson	Part-time affiliate (consultant)
Vincent	Part-time affiliate (R&D professional, collaborating on Medisensor project)
Edson	Part-time affiliate (involved in project of sensors for food production)
Brian	Part-time affiliate (software programmer and consultant)

Because members were free to contribute in any way they could and wanted to, some tensions and misunderstandings arose. Typically, these involved a clash in priorities between generating revenue from sensors and promoting an anti-capitalistic economic model. For example, funding from venture capitalists was considered by some members as a threat to core values. As these issues surfaced (and resurfaced), community-wide discussions were facilitated online. As Technica grew and institutional requirements were increasing, accommodations and compromises became more difficult to achieve.

Late in 2013, while previously obtained funding grants were expiring, Sergei, in particular, became even more resistant to compromise with traditional institutional economic models. Furthermore, the *Medisensor* was still not ready for market, and hence unable to generate revenue. Members increasingly voiced their disenchantment with the future of Technica. In a meeting in April 2014, Technicans collectively discussed more enduring definitions for "who we are" and "what we do." In the process, organization split apart. This study analyses the discursive and interactive processes by which the organization was held together during its first four years, and how it came to split apart when these processes were no longer sustained.

5.2.2 Data and data analysis

This paper is based on an ethnography (Van Maanen, 1988) combining direct observation and archival data (see Chapter 2). I started by analyzing all the above-explained material collected about Technica, with a *process as activity* research strategy with discourse as the unit of analysis (Fachin & Langley, forthcoming – see Appendix). I undertook the first analysis as events were unfolding when I started the fieldwork in June 2012.Based on studies of organizational identity, in this round I was looking for

the formation of shared understanding emerging through interactions. However, despite coding different types of performances and agreements during conversations using QDA data analysis software, I found very few enduring resolutions at the organizational level (sometimes a concern voiced by participants themselves). While some agreements were made, they were fragile and the underlying issues kept resurfacing (Chapter 4). In April 2014, stronger resolutions were clearly made. Yet, this work was happening as the organization was splitting apart.

After this first round of analysis, I suspected that the lack of resolution was what was holding organization together and therefore enabling the identity narrative to keep going. I investigated literatures pertaining to ambiguity, tensions, and dysfunctions. I then analyzed all the organization-wide interactive and naturally-occurring data retrospectively, in chronological order, starting with a collective email from February 21, 2011.

In this second round of analysis, considering that I had already learned that organization would split, I shifted my inquiry towards what was holding the organization together for the first four years, intending to then compare it with what happened in the period when they were breaking up. In this retrospective part of the analysis, which I based on the newly investigated literature, I was not able to identify specific points when ambiguity was used strategically or any specific rituals that would enable the maintenance of divergence. I then focused on the outcomes (or lack thereof) of different types of collective interactions rather than specific performances or micro-agreements. I also paid attention to who was and was not engaged in these debates, i.e.,

not only the constructions that were made, but those that were not being made about

Technica.

I found three types of collective processes that are shown in Table 2 and provide

additional illustrative examples beyond each of the specific conversations.

Table 5.2 Collective processes that hold organization together (February 2011 – October

2013)

Process	Description	Quotes (examples)	Data
Disengaging from identity discourse	Being absent from discussions or redirecting them to more grounded concerns	N/A (these are emails without response or by counting people who are not in the email debates, videos, or meetings) "Rarely have I been witness to so many items that are deemed SERIOUS and warrant IMMEDIATE attention! […] So, I get it, but it's a bit overwhelming sometimes" (Kevin, in a response to Sergei) "We had fun today discussing about TECHNICA'S TECHNICA's identity, and watching the video about how to run a successful open source hardware venture. We even continued the discussion at a bar nearby. **Unfortunately, participation was low.**" (Sergei) "Anyhow, I must go work" (Nelson)	- 1800 threads with less than 5 replies and 2 authors - 34 threads with calls for more participation - 9 Presentations of Technica - People absent in 16 meetings - Fieldnotes - 88 shared Google documents with one author
Venting about	Sharing individual	"My goal is never to	- 160 threads with over

"who we are" and "what we do"	viewpoints about the organization without a need for agreement and with little impact for the organization	compromise the open source nature of our products" (Sergei) "I don't question your motives, but I do know you must eat." (Nelson) "I am convinced that in the long term, open innovation is the right path for all Technica projects, as soon as we have a brand, a community and especially when everyone understands the dynamics." (Pierre)	6 exchanges and 2 authors - 25 interviews - 16 meetings - 22 shared Google docs with more than one author - Fieldnotes
Accommodating conflicting views about "who we are" and "what we do"	Temporarily (and often conditionally) consenting and conceding on values or practices in an organizational-level decision with (potentially) important tangible impacts	"I am just calling for a holistic approach […] if we don't make an effort to compromise, people will get disgusted and quit the process" (Sergei) "I am not forcing anyone to adopt open practices. This is a matter of compatibility and compromise" (Sergei) "So, i'm not saying that Future Center [pseudonym] is necessarily a shark, but they are not necessarily a protector against sharks, either." (Brian)	- 5 email threads - 2 meetings - Fieldnotes

While *Disengaging* and *Venting* happened throughout February 2011 to October 2013 (Part 1) concomitantly and almost every day, *Accommodating* only appears in some specific and short-term moments (lasting a few hours when offline and 2-3 days when

online). Starting in October 2013, *Disengaging* and *Venting,* start to dissipate, and *Accommodating* (or the lack thereof) starts to become more intense.

For the period from November 2013 to April 2014 (Part 2), I analyzed 17 threads, 10 online meetings, 4 offline meetings, and 4 shared documents. I particularly focused the analysis on the 6-day thread in April 2014 with 92 posts during which the split is taking place. The first analysis of this particular thread indicated an overall and rather strong drive to collectively resolve "who we are" and "what we do" that did not appear in any other thread. Then, I made sense of this identity formation process in three phases. As we can see in Table 5.3, they contrast with the processes in Part 1 (Table 5.2).

Table 5.3 Collective processes that broke the organization apart (April 22-28, 2014)

Process (Phase)	Description	Quote (example)
Engaging in identity discourse	Joining debates and seeking resolutions	"I feel that it is important to have this conversation before OuiSharefest since it will be an important milestone for Technica" (Nabil) "I support the idea of this meeting" (Tom)
Collectively making sense of the core issue	Collectively seeking for a shared understanding of organization	"Maybe it's too late, and all of this has gotten very personal and antagonistic, but an atmosphere of honest dialog would have been helpful. It's clear that this conflict has been festering for a long time." (Joe) "He [Sergei] decided to turn into a philosopher, and basically abandoned our core project." (Tom)
Agreeing upon what the organization is about	Making enduring concessions in reaching agreements in values and practices	"The Technica network (at least in Montreal) is made up of two different culture, therefore, I am happy that the two cultures are separating." N/A (people no longer struggle as they take a distance)

5.3 Findings

5.3.1 PART 1: Holding it together (February 2011 to October 2013)

5.3.1.1 Disengaging from identity discourse

Disengaging is about not participating in or preventing discursive constructions of "who we are" from taking place. *Disengaging* is about passively or actively deterring collective engagements to reflect upon and negotiate more abstract discussions about the organization. In some cases, rather than contest a position, people may just to choose to walk away (for example, perhaps because it is not worth the effort). This involves, for example, not attending meetings, voicing disagreements against these meetings, or redirecting the identity-talk of these meeting to more grounded concerns.

Disengaging involves not participating in meetings that are typically identity flavored. Through Technica's history, these meeting took place, on average, twice a week, but not everyone participates although they are open to all members. For example, the "Meeting for infrastructure" was regular every Monday from 10:00 to 11:00 with a handful of members. "Online meeting with P2P value" and "Impact Economy web meeting" were other types of regularly scheduled conversations that took place with a handful of people. Lasting about an hour each, some meetings were recorded and some were online, for a total of 1,000 hours of video. In short, the majority of members did not participate in these discussions.

Other discussions took place online by email with the whole community. These conversations are typically promoted by Sergei, who had posted 3482 emails. This is more than the top 9 other authors combined (2872 emails). Of the other co-founders, Pierre posted 435, and Tom has 183 emails out of a total of 10,000. While Technica had

120 affiliates in March 2014, 51 of these sent less than 10 emails and only a handful participated in online or offline meetings.

In this way, the performances (at least in quantity) were concentrated in the hands of one individual, and some members may not even have been aware of what was being discussed. In the few instances in which some members who were resistant to these discussions did join in, they worked on redirecting rather abstract topics of discussion to more grounded concerns. When Sergei says "we are reprogramming the world economy" his partners presented different priorities for Technica. Mike talks about making "a list of people who you send samples" and "university/hospital contacts." Pierre focuses on "pricing/marketing strategy." Tom talks about getting "help with the microfabrication of one type of the radial sensor," and highlights that "in order to make them [sensors], we will need space, materials, equipment, and time." They focus on the mundane operational activities of a startup, and the overall interest moves away from identity-flavored discussions about the venture.

Based on the lack of engagement of his partners in discussing "who we are" and their more instrumental approach to the venture, Sergei voices concerns about his partners being "blinded by the prospects of financial success." Arguing that he "CANNOT run a corporation," Sergei "proposes to clear all these unknowns" in order to "harmonize our views". For Sergei, converging on "who we are" is an important matter to be decided upfront.

> I talk about stuff hidden beyond the horizon. I am laying down a long-term plan, and I am trying to adjust the present to meet the future, which is fast-approaching. I also want to make sure that we all share this long-term vision, in order to work

together to prepare for it. Because if you are not convinced that you can make money with open hardware you will not want to engage in this.

However, his partners do not reply to such emails. In another email, Sergei reinforces his position. He explains that in "the process of convergence and team building there is a movement towards one another, at least in understanding. Convictions might remain unchanged in the end, but at least we understand each other, so convictions are based on rationality."

While Sergei is "struggling to bring everyone to the same level of knowledge by sending out videos, articles and by exposing my own ideas," he does not receive much response. Sergei also tries direct address to a partner to provoke a response.

> I never felt that Mike made enough effort to understand my point of view. He never gave me sound arguments against my convictions that today, openness, sharing and transparency opens a new Pandora box. This is not the way I see collaboration. Our positions must be honest and rational. Our attitude towards one another must be one of attentive listening, appreciation, respect, etc. Let's explore these crazy ideas I am proposing. I am not the only nut out there proposing them...

Following this email, Mike departs from the venture. The remaining partners, Tom and Pierre, are still been pressured to converge, a dynamic exemplified in the following email exchange.

> **Sergei:**
>
> Guys, I think we need to settle some matters before the meeting, and this cannot happen the evening before. Let's exchange throughout the day and tomorrow on some important issues.
>
> How do we talk about our products?
>
> What are we and how do we present ourselves?
>
> What are the different types of relationships are we offering to engage in?
>
> What do we really want?

What is our value proposition for them?

How do we operate?

Usually, this kind of email does not elicit any response at all, yet Sergei persists that these issues cannot be resolved unilaterally by default. However, Pierre replies to this one, without providing a direct response to these questions: "wow, I have been busy all day long and unable to connect to the internet, and I see that there's a Tsunami of questions about who we are." Similarly, Tom replies:

> We can keep talking about these things forever, I just don't understand why are you [Sergei] panicking. Life is getting better: we found clients, now we need to involve some experts, find more collaborative contacts, we need space (if you want it or not).., and so on and so forth. Let's worry step by step, let's not run in front of the locomotive.

Focusing on the mundane, Tom is questioning the need for these debates and attempts to deter conversations about identity. As he puts it, "we are ethical, not just because we say it, but as a consequence." For him, identity is a consequence of actions. In this way, he redirects the conversation back to the mundane. When Sergei talks about "values," Tom talks about "value," defined as "low prices by integrating open hardware and software" and "offer[ing] high quality products."

As we can see, there was some discussion about identity, but most of the inferences were indirect. Sergei however insists on a more direct and explicit agreement on that which is central, distinctive, and enduring about Technica. We can see this dynamic when he brings up another topic for discussion and even quotes himself.

> I believe that the notions of possession and ownership need to be revised. What [do] others think? Please participate in this discussion, we need to grow out of these differences of opinion. We need to build rational bridges between our personal convictions, to build a strong consensus. The future of TECHNICA relies on our capacity to build this consensus. It is that important. This is precisely why I

proposed to "Have a meeting at least every two weeks where we discuss about the new economy, comment an article or a video." see suggestions page

https://sites.google.com/site/principalinvestigators1/home/suggestions

Please expose your opinions.

Tom says that "to be honest, I'm not comfortable with this kind of conversations" For him, there has already been too much conversation about it.

> We spent almost five hours last time talking about the hierarchy of members, contribution, etc. I physically cannot repeat here everything I told you about.
>
> My impression of the meeting was that we agreed on some raw model, that is DIFFERENT from the one that you presented at the very beginning, as long as it was very virtual. Now, basically, you're saying the same thing as if we never had that conversation.

Curiously, Tom's organizational identity work effort consists of avoiding getting into debates about ideologies, practices, and boundaries. Perhaps paradoxically, he argues that what is central for Technica is to limit these identity-like discussions and get work done on sensors. Sergei then starts a new thread to talk about how "we are here not only to make money" and getting "serious about building a business for the future, which is already knocking at our door." He proposes a "meeting at least once every two weeks where we all discuss a video or an article addressing the new economy." This thread has 5 emails, all from Sergei replying to himself. Following this successive lack of engagement, Sergei argues that this lack of engagement is more problematic than disagreeing, as he explains below.

> This lack of participation in the process by which we define what we are, what we want, how we operate, **might signal a deep divide in our views**, which is definitely not good for the entire group, because it creates insecurity. I am feeling insecure. **Your lack of participation, your refusal to dialog,** makes me think that some issues related to open innovation, open hardware, etc. are still not resolved, and this makes me doubt about my choice of partners in this epic venture. I am just telling you how I feel. **It is better to openly disagree and**

work towards a consensus than not talking about things at all. The first option is constructive, the second is destabilizing, paralyzing.

As Sergei suggests, the absence of convergence and lack of conversation can in itself lead to a split. He ends with "I cannot build this thing alone, because TECHNICA doesn't exist without a consensus," while speculating what Tom and Pierre might think, at a deeper level, about the venture. In a way, then, Sergei is saying that the type organization he envisions cannot be constructed if others do not participate in its construction. The divergence that we see here is not over "who we are" but over whether "who we are" is important for Technica. Ambiguity here is created through silence, or leaving "who we are" implicit. Ambiguity enables accommodation of (perhaps conflicting? One can only speculate at this point) unexpressed views. This ambiguity allows people to make assumptions about their partners' ideas for the future of the venture. Sergei suggests that there is a limit to this implicitness, and points out that itself could be a reason for splitting.

Indeed, if organizational identity is a co-construction, shared understandings can only emerge with interaction. If members do not engage in the process, shared understandings cannot be constructed. Collectively, then, organizational identity work is about the actors that are involved in the conversation, creating and shaping the situation. While organizational identity work "disappears" if no one is aware of or reacts to it, when people reject constructions, they are still engaged in a process of co-construction. In this way, organizational identity work can be considered debate which stimulates further constructions. Indeed, as we will see next, these performances stimulated interaction, in ways that cannot be planned, predicted, or controlled by the

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performers of organizational identity work. In the next section, we will see how "who we are" does get discussed too, among various members, and quite intensively.

5.3.1.2 Venting about "who we are" and "what we do"

Venting is about discursively co-constructing that which is central, distinctive, and enduring about the organization. These are exchanges of viewpoints about "who we are as an organization" oriented towards some kind of agreement, yet an agreement is not a requirement. In a way, it is about constructing identity for its own sake. We can see this through a metanarrative of non-convergence, and through practices that enable the inclusion of opposing opinions. In a way, *venting* consists of "no commitment" discussions about "who we are (or should be)" and "what we do (and should do)." Typically for these topics there is no need for resolution or agreement and the outcome of the discussion does not have a direct impact for organizing processes.

Members who participate in these *Venting* discussions are often those who do not do any work on sensors. Joshua and Tom, for example, are often silent in these exchanges. Pierre however works on sensors and is often involved in these threads, in particular the less abstract ones. Following Technica's successes with funding, awards, and academic recognition, people join Technica and start to participate more actively in these *Venting* debates. One of them is Nelson who explains his motivation to be part of Technica: "excellent counter-arguments are how I am paid." Nelson does not do any work with sensors and has never met any other member in person, yet is active in online forums and is at times influential in key decisions (see "Integrative Work" in Chapter 4 for more on this).

Venting involves a wide range of topics with titles such as "Duty vs. passion," "Reflections on value networks," and "fresh/interesting constructive criticism." In one of these threads, Martin, "a man from Open Source world (after more than 10 years), now working with people [Technicans] using windows and closed software," starts a discussion with a provocative challenge to core definitions: "Hi we aren't open source hardware but maybe [this] is important to know: http://www.hfday.org/   [a link to a website about open hardware freedom day].

Pierre replies that "I thought until recently that we were open source hardware. Actually, we are not close source hardware either. So we are open, but there are different levels of openness," Sergei expands on his position. "Some Technicans [likely referring to Pierre and Tom, and perhaps Joshua] think that, at least in the beginning, before we reach critical mass, we should protect some of our knowledge."

Sergei disagrees and excludes himself from these views. "What I don't want to see is closed and non-transparent projects within. I think that if someone wants to patent a technology, deny access to participate and doesn't share to a certain extent knowledge about the project **has no place in TECHNICA**, because that defeats the whole purpose of the value network." Sergei adds: "Even if the project pays money to Technicans or reinvests some of its revenue in other projects, or sustains mechanisms of solidarity within the network, **it still doesn't make sense within TECHNICA**." So while Pierre argues for a middle-ground position, Sergei rejects it and proposes openness at an extreme, thereby creating a divide.

Six other members voice their opinions. Throughout these exchanges, we can read statements like "That is actually the essence of open stuff," "it's about betrayal," and the "opportunity costs of defensive measures." While *Venting* is populated by people in the open camp, within this open camp we can also see disagreements. Nelson claims to be "fully in the P2P camp," but also talks about how "open source has survived as a parasite of the existing system." Martin, who argues that "IP protection is the classical closed model" accuses Nelson of "Again you [do] not understand the Open Source [movement], your mind is like lawyers['] that want to get pa[id] for music discs in the Internet age." At some point, the understanding about the matter was becoming highly individualized.

Besides, such discussions trigger a lot of questions and few answers. In one email, Sergei asks nine (perhaps rhetorical) questions, such as: "If someone takes our technology and applies it to another field without acknowledging our work do we lose anything?" Pierre, too, is looking for answers about "theft" of technology. "I don't see any practical answer to my concerns" when he refers to an example of someone who would "just have to cite us in a paper. If he's kind, he will add a "thank you guys", but that's all. Where is the money in that case? Any answer on that?"

Based on this idea that "we need protection," Pierre says that "I don't see why we should take stupid risks and trying to be between two seats." In this statement, he revisits his position about a mix of open and closed models, and re-situates himself more firmly in the closed camp, sharply contrasting with the positions of some members in this discussion. After all this collective sensemaking, some members are not so satisfied with the tangibility of the results, as in other similar discussions. Martin sums up the conversation.

> And to close this conversation one reflection: The start of the conversation is the message about the OSH day and we had a nice "chaotic" conversation, this kind of participation is like drinking beer and talking about how change the world, you can learn about the ideas of others, get new ideas and transform our ideas, it's an important discussion but in the end we not have created something like a prototype :(

In this way, neither *Disengaging* nor *Venting* resulted in much convergence about that which is central, distinctive, and enduring about Technica. While there is a (mostly implicit) convergence in *Venting* that it is important to discuss "who we are", core issues are still unresolved, somewhat buried under a cacophony of constructions. With this fuzziness, it is more difficult for the actors to "see" the actual issue and therefore make sense of it or act upon it. In this case, individuals provide their own resolutions that collectively lead to yet more ambiguity. What we know from these debates is that Sergei and Pierre have, most of the time, opposing opinions about the notion of open vs. closed, that other discussants shift opinions within this "open" camp and that most members (despite receiving all these emails) have provided little or no opinion about the matter through these organization-wide exchanges.

Furthermore, because these discussions do not require an agreement and have unclear "real-world" impacts, each member is able to "keep" the understanding of Technica they prefer. This happens as the result of the "unregulated" collective interaction rather than any specific or identifiable effort of creating ambiguity. The narrative about Technica can keep on going in these forums, precisely because these discussions do not have much a more tangible outcome. In some cases, however, an agreement needs to be made, with a potential impact for organizing, as we will see next.

5.3.1.3 Accommodating conflicting views about "who we are" and "what we do"

Accommodating is about making individual concessions towards an agreement, as a political struggle. In a way, collectively, this takes place as people provide space for others to perform organizational identity work, somewhat expecting some space in return. This is about reciprocal discursive exchanges of consent on values and practices, rather than sharing beliefs about them (this distinction is important for the point I wish to make). In some instances, members manifest how their organizational identity work differs from their own beliefs about that which is central, distinctive, and enduring about the organization, justifying the difference by arguing that they need to compromise with others and/or blaming it on circumstances beyond their control. These conversations are typically triggered by an external opportunity or threat and typically involve a deadline, with an outcome resulting from a "yes" or "no" decision that (potentially) has a direct, tangible, and often monetary impact for the organization.

Indeed, while all this pluralism in Technica promotes inclusion, some decisions still need to be made at the organizational level. In other words, in some cases, there is little choice but to converge or risk a split. These binary decisions typically involve the tension between openness and survival. This tension has appeared surrounding such issues as choosing a legal form (May, 2011) obtaining funding (June, 2011), forming partnerships (August, 2012), and copyrighting the logo (February 2013). As the organization grew and faced more institutional requirements, accommodating became a harder task. Below, we can see Pierre's efforts to renew a compromise approach to patents.

> **Pierre:**
> Dear Technicans,

As you know, Technica recently garnered awards and grants that are essential to its development. To be eligible for these grants, to be considered by decision makers, we needed to tell them that the Medisensor technology was patented. So last year we filed for a provisional patent. **Even if patents are against the nature and mission of Technica,** they had the effect of reassuring these people, including not only agencies, government but also potential customers. For example, without this provisional patent application, we would certainly not have had the following grants (Fondation du Maire, CDEC, Quebec Entrepreneurship Contest), and we would not have the right to sell to the government (through the government purchase program (CICP)), we would not have been taken seriously by potential clients like NeuroTouch or the Canadian Space Agency. Moreover, having a patent (pending to not) makes us credible to claim credits taxes on R & D.

As we can see in this quote, Pierre is paradoxically arguing that while patents have been and are likely to continue to be a central practice that enables the survival of Technica, it goes against what he considers to be its identity. In a way, he is asking for some kind of permission to keep on going against "who we are" in order to keep surviving. Still, we note that while arguing for patenting, Pierre is conceding to Sergei's vision of what Technica is. According to the view Pierre typically promotes (see *Venting)*, patenting would not conflict with the "nature and mission" of Technica.

"Pierre is right," says Sergei in agreement, "we've played a double game to access some precious resources and to get these prizes that not only brought us some cash, but also validated our technology, our market, and (even more impotently!) (sic) made us have confidence in ourselves." He reinforces Pierre's position by saying "I was with him [Pierre], Tom and Joshua to almost all these meetings/presentations, and it became clear to me that these guys who invest government's money in new startups need to see IP [Intellectual Property]." "The entire government machine operates on the principle that IP is gold," Sergei adds.

While Sergei supports Pierre's idea in moving towards an agreement, he is not willing to compromise himself as an individual. "I am the first one to say patenting doesn't make sense in the new economy. I don't need to go on a rant here, you all know my convictions, which are probably far more extreme than most Technicans." (See also in *Venting* when Sergei said: "someone [who] wants to patent a technology [...] has no place in TECHNICA "). In this way, he avoids blending into a collective decision that he supports. Sergei is granting space for Pierre to define Technica while maintaining coherence for himself (Sergei) in terms of his individual narrative.

Indeed, Sergei's opinion is surprising considering his previous engagements, and he strikes an alignment between his trajectory and this decision. Sergei explains it. "Historically, I was against filing for the provisional patent, but I went along with this initiative, which was advocated by Tom and Pierre" to give the "tools needed to operate." Indeed, by saying that patenting "is such an evil thing!" and a "dangerous game to play," Sergei does not want to leave any doubts about how much he is opposed to the organizational identity work that he is somewhat forced into performing. In this way, he can potentially in the future promote the constructions that he would favor and likely agree with.

As we can see, Sergei fragments the organization by pointing out who more precisely is involved in these contradictory practices. By highlighting how much of a concession he is making on his individual values, Sergei aligns himself with a vision of Technica to which Pierre had consented. While Pierre agrees that patenting is against what, for him, Technica is about, Sergei agrees with the patenting practice. In this way, they are

performing an exchange of definitions, an exchange of discursive spaces for others to perform organizational identity work.

The issue would potentially be accommodated if other anti-patenting members were also as willing to compromise. Vincent, for example, says "I do not believe in patents… what value will the patent bring to Technica at this point? Do you really think it will help you obtain more funding??? My vote: forget the patent!" Joe, by expressing fear of being "sued by some corporation that claims ownership of the contribution," holds Pierre's feet in the fire concerning the need for this patent, and poses a series of questions like "Could you tell if a patent was a requirement, or just an important question? And were they more interested in whether you had clear rights to your IP (and were not violating anybody else's IP), or that you could use patents offensively?" Joe concludes: "But it will have costs beyond the irony of it all [an open source network with a patent] so it probably possible to do a cost-benefit analysis."

While Pierre does not reply to all of the questions, he explains that "as we were in the mode to raise grant money until recently, the strategy to show a patent was, in our minds, legitimate. Now, we meet more and more potential clients, and they feel comfortable if we have (or claim to have) a patent." Pierre concedes by arguing that patenting is a temporary solution, yet without indicating any dates.

> It's not the option Technica wants to follow in the future, indeed. Natural protection will come from a large, fast, innovative and fast-to-market network that we don't have yet. This venture can be killed in the egg by someone having the feeling he/she can take the technology and run without we have a word to say (even if it's only a threat).

This rather defensive effort of apologizing for patent protection, by suggesting that only under quite special conditions would Technica actually be open, triggered reactions. Joe provides the example of the "Dojo (open source software) foundation [which is] is annoyingly strict about copyright because the copyright holder gets to assign the license, and they do not want others to take their code and change the license to something proprietary." Also, he asks: "How would that work if TECHNICA remains an informal network?" and voices "concern[s] more about exploring the possibilities for the future than making a decision about TECHNICA's current patent."

Following this impasse, Sergei talks about how "perhaps one day TECHNICA will flow into two slightly different directions, splitting into two variations of the model, which is entirely in accordance with the nature of the beast." At the same time, Sergei says that "I want us to keep our access to the old economy, but at the same time I don't want to alienate anyone [Pierre, Tom, and Joshua] who contributed to our success." In a way, the patenting and open debate is going beyond "who we are." It is more about keeping people together and reciprocating. Yet, Sergei's support of Pierre's patenting strategy is conditional.

> **Sergei:** Attractive systems [like Technica] cannot exist otherwise [with protection], unlike systems of confinement (like corporations). This is why I propose to put **an end date on this**, after which everything goes Creative Commons [an open license]. So this is only a **temporary measure**, to allow Pierre to continue building the relations he has built with the local organizations (see his email), and to be able to extract value from them, for all of us.

While the issue of patenting is being accommodated, some other notions would have to be revisited. For Nelson, "patents are not a bad thing (though the patent system is a disaster and should be dismantled, until then patents are not a bad thing.)" He talks

about how patents "are a valid tool" and suggests that "members of Technica would have a non-exclusive license to use it and to create derivative works from it." Yet, for Nelson, **It [Technica] would also NOT be open source,** which in my mind is a bad idea" because people from the public would still need to "sign the agreement" to "have access to the commons."

Sergei is not however willing to compromise on Technica as "open." Arguing that "the joint-type transducer (the first prototype) was created [by himself and Tom] before TECHNICA," Sergei constructs this patent as an exception and places it outside the context of Technica. Sergei also argues that the "CC BY-SA license is the best choice on the long run," suggesting that claiming "open" in the present can make sense because this is an exception "for this particular case." He adds that this limbo-like situation will end soon because "sales are around the corner" and then a "patent will not matter at all."

Sergei argues for "a compromise to solve the current issue, asking for a deadline of any agreement we might come up with, to be entirely revised periodically." He proposes to "continue the discussion about how to deal with innovation in the future after we solve this one." For Sergei, "I think we all resonate alike, with small nuances. Nothing too deep to stop us from working together in harmony." Yet, these nuances also include sharply contrasting views about key practices and identity claims that can be made for the venture.

In *Accommodating,* if a decision is not made, the organization risks collapse (unlike in *Venting*), and yet, if a decision is made, the organization also risks collapse. What keeps

organization together is the very ephemerality of each decision and how things continue to be patched up collectively. *Accommodating* is more about the ongoing exchange of discursive spaces to define the organization than about the definitions that are made. Divergences are accommodated as a result of interactions.

While we have seen agreement on key organizational values and practices over time (for example, Pierre agrees that Technica is open, so that Sergei agrees with patenting) there is increasing division about that which is central and distinctive at Technica, and even on how enduring this misalignment between "who we are" and "what we do" could be. People keep organization going through shared consent based on individual (implicit or explicit) concessions, as their individual views are clarified and become further apart. "Who we are" is put on hold so that the organization can continue, through these fragile and temporary agreements which lack alignment with views of individual members. Still, as the organizing process keeps on going, organizational identity work can keep on being performed. However, sometimes this no longer works, as we will see next.

5.3.2 PART 2: The end of the beginning (October 2013 – April 2014)

Towards the end of 2013, compromises become more difficult, as both sides are less willing to concede. As Pierre explains, somewhat ironically, in discussing funding "We are working almost for free (yes, I know, future revenues) for years." Sergei strengthens his position: "Technica was created for us, not for the sharks. [They] give you money but they also want control." For Sergei, with funding from venture capitalists "Technica will become a piece of meat in the middle of hyenas and vultures."

Indeed, previous compromises on similar issues are no longer happening, and *Accommodating* types of discussions happen more often than in the previous period.

These issues include registering the brand (October 2013), funding (December 2013), registering the brand (December 2013), intellectual property (January, 2014), rebranding (February, 2014), funding (April, 2014), and the legal framework (April, 2014). These issues keep resurfacing and are left unresolved.

In light of this paralyzing situation, Pierre explains that

> I can't just let pass to have several initiatives (even drafts initiatives) violently blocked/killed in the egg because it "may" (in appearance, even it's a draft) not respect what Technica is, OR worst, because the guy who pushes has been labeled "suspect" because he wants to allow major investors to be able to invest into open-source projects while being fair to the community […], OR any other reason that could be even less acceptable.

Joe, ironically, suggests that the latest meetings at Technica were about "co-blab-oration" rather than "collaboration" because "nobody would do any actual work, just blab on and at the next meeting forget what they promised." Tom is more direct and argues that "the main problem is the absence of structure and impossibility to agree on anything within Technica." For him, "the state of things within Technica is absolutely random to me and I can't deal with it any longer."

5.3.2.1 Part 2.1: Resolving it (April 22-28, 2014)

5.3.2.1.1 Engaging in identity discourse

Nabil, an MBA student who has demonstrated interest in "ethical and efficient economic systems" and had joined recently to "address that challenges we will be facing in the not-so-distant future," uses the email list on April 22 to "call a meeting to have a discussion on the future of Technica and the use of brand name including decision making mechanism." For Nabil, this meeting is important because "there is a lot of uncertainty

that is causing a lot of friction within the group [about] what Technica should and should not do."

Of the 2000 threads at Technica, this one had the most engagement, with 92 posts and other parallel threads (e.g. "Is Technica dead?" and "What is the main problem?"). In particular, this was the first community-wide discussion that actively included Tom, who "fully supports the idea of this meeting" and argues for deciding "who does what and who goes where, under 'Technica' brand or not." This engagement is rare for Tom, who had considered such meetings a "waste of time" and had been spotted by Joe in some meetings to be "laying on the couch, rolling his eyes and not paying attention."

In contrast, arguing that "the TECHNICA community is strong and this is not an existential problem" Sergei prefers to approach the issue slowly and "have a meeting [when] we are already informed of everyone's position." He says that "later today I will link to prior discussions, ideas, propositions, in order to bring into this our history." Nelson agrees that "if this is in fact an existential decision, the highest expectations should apply." He also argues that it is "inappropriate" to have a meeting to "ram a decision through." In a way, this reminds us of the discussions in *Venting*, where there is a lot of discussion and little ends up getting resolved.

Tom however "prefer[s] to make it exactly one-time decision(s). For him, "there's no need to start from zero, 'cause we all know more or less what's going on." Nabil "agree[s] with Tom: Have a meeting and take a decision." While in a series of exchanges Sergei reinforces his position that "decisions that rely on poor information can lead to disaster, Tom does not "find it productive shoveling back into our history right now. For him,

"these unresolved things were always with us," and "there're a few things to be decided, the sooner we do it - the better." Tom orients the tone towards a conclusive resolution with a need for an agreement and outcome.

As focal actors find the discussion important enough to engage in it, the discussion heads towards resolution mode. With all the important parties present and willing to find a consensus, the discussion can no longer be postponed through the lack of quorum (as in *Disengaging)*. This thread develops by narrowing the space available for ambiguity or postponements. Resolutions are demanded or the organization risks splitting.

5.3.2.1.2 Collectively making sense of the core issue
As the tone of the discussion is being set, Joe advances: "We understand that a tension has always existed between outreach and evangelism and getting sensor products to market. Can that tension be resolved? What is the correct balance?" His attempt to cut to the chase inspires Pierre, who talks about making and selling sensors as the priority. "We've been telling everyone for 3 years that we make a Medisensor. We got all our funding for that." He adds: "we have people waiting for a demo in June. Are we going to make it?" For Pierre, the Medisensor has not been treated as a priority.

Tom agrees with Pierre and reveals that "Sergei said that our core technology, the Medisensor, is at the very bottom of his priority list." Accusing Sergei of wasting his time in "philosophical debates," Tom asks "why does he [Sergei] put so much energy into other stuff rather than the Medisensor project, which is our core technology?"

While Tom and Pierre are defining what is core for Technica, Sergei does not answer

Tom's question, directly, but instead transfers the blame to Tom. "We've been working

on the [new] website for more than 1 year and it is still unfinished. [...] The last time I

asked the password to add stuff to the website was a few weeks ago, and I still don't have

it." Following this divisive rebuttal, Tom defines Sergei and blames him for his blaming.

> I appreciate Sergei as a physicist and engineer, but unfortunately for me **he decided to turn into a philosopher, and basically abandoned our core project. You're busy with anything but R&D.** You know Sergei, if I were you**, instead of going deeper and deeper into your philosophy, blaming us for doing bad job** and fighting with Nabil, I would rather concentrate on something real that we all need.

As "we" shifts to "I" and "you," Tom fills in the blanks of Sergei's silence about his

involvement in R&D. Tom says ironically that Sergei "never found an hour in your full

and rigid schedule" to work on the Medisensor. Tom, who did not engage in *Venting,* is

now letting it all out in this deal-breaking discussion. Pierre agrees with Tom and

reveals that "Sergei is paid part-time (20 hours per week) by this grant to develop the

Medisensor but it's his low low low priority." So while Sergei does not articulate his

contribution to the sensor projects, other members do it for him while making sense of

Technica.

For Sergei, indeed, the issue is that "we are not enough to do community development."

He adds that "Tom doesn't participate in other projects that are not related to the

Medisensor. I respect his way to prioritize his involvement. I have my own set of

priorities and roles." In a way, Sergei is talking about sustaining the current situation,

and argues that it is acceptable that he engages in identity-like activities while other do

work on sensors.

The tension increases as Tom provides a "list of at least seven moments in our history when your contribution was really needed. But you [Sergei] decided to keep yourself aloof from the on-going real tasks." He contrasts Sergei with other members, and keeps on raising boundaries. "This is how our [not Sergei's] everyday routine goes: we [not Sergei] work on products, do R&D, go meet clients, etc. What Sergei did today - only God knows. He comes almost every day, does something.., the result is unknown..."

At this point, the need for some kind of agreement on values and practices has become secondary. For Sergei, "the fact that this blows up in our face is NOT a surprise." Labeling Tom, Pierre, and Nabil as the "unhappy team," he explains for example that "there is no surprise that Tom doesn't like open, decentralized and self-organizing projects." In this way, he argues that these disagreements have always existed, yet only now have they appeared in the form of organizational identity work.

As members are collectively making sense of the fragile and temporary agreements made in Part 1, we can see efforts to achieve endurance and stability. Indeed, this resolution came out of the accumulation of years of ambiguity and unresolved issues, and, triggered by Joe, the cacophony from *Venting* is being reduced to a clear set of narratives that are easier to grasp. The core issue that had previously been tangentially discussed t is now fully worked out. This is however getting personal and leading to breaking the organization apart. Constructions slipped from being ideas about the organization to about people involved in the organizing process. Members are filling in the blanks left by others and are now approaching a consensus on central, distinctive, and enduring features of the organization, as we will see next.

5.3.1.1.3 Agreeing upon what the organization is about

As they were making a clearer sense of "who we are" and "what we do," it takes a few more exchanges for founding and key members to announce their departures. Tom explains "how relieved I feel not to be a part of it anymore." With a more unified understanding of Technica, Tom is able to explain how "I don't recognize myself in Technica anymore." In so doing, he implies an understanding of that which is central, distinctive, and is likely to be enduring in Technica. Understandings that Tom himself had co-constructed for the organization are now contrasted with himself individually. Talking about a "divorce," Tom then "wish[es] Technica good luck!" He no longer struggles with Sergei on what Technica is about, and leaves the space for others to define it.

Similarly, for Nabil "Technica no longer makes business (pragmatic) sense to *us*" [emphasis added; who is us? Nabil, Tom and Pierre?]. "I don't feel that Technica is a safe place for experimentation anymore," he adds," or rather, there is only room for one experiment with the attitude of 'my way or the highway." Nabil "no longer believe[s] that it [Technica] is open and/or horizontal [but] an informal hierarchy" and now talks about it as "Sergei and the army of 'yes men." Defining Technica by contrasting it with himself, Nabil adds: "Oh you have XYZ values, go to Technica, you have ABC values go to Innovatron [pseudonym]. Fantastic!" While at some points Nabil's definition of Technica is almost ambiguous to the extreme, he excludes himself from it and suggests that other people could be a better fit.

Pierre too, as he makes further sense of Technica, explains that "many people won't be able to work in the same room anymore." Because this discussion is getting personal and going beyond shared agreements and generating revenue, Pierre also departs.

> I don't recognize myself anymore in Technica. I don't like the democracy at Technica: it relies on long emails and tons of documents I don't have the time to read with an overwhelming backlog. As a consequence, how can I influence or take an informed decision? Culture: Technica requires a network culture. I am not the best at it.

Pierre presents Technica in line with Sergei's positioning and like other members, contrasts it to his "fit" in Technica. For him, a split is quite clear: "now we must separate dishes."

Sergei attempts to defer these resolutions by arguing that "generating revenue will solve this problem and will make these symptoms go away" and that "things are too entangled" and "I don't know how a separation can be possible now." In attempts to hold the organization together by making things fuzzier (as in Part 1) he characterized this situation as a "coup [that] was probably miscalculated" and "a master plan behind the curtain.," Sergei tells Pierre that "the separation will not happen, you will continue to use technical commons and shareables, even if you announced that you quit TECHNICA." Sergei then tries to make understandings yet more ambiguous to enable inclusion.

Such efforts to hold things together by creating ambiguity are, however, ineffective. Right after this, Pierre reinforced his departure. "The conspiracy terminology used here (coup, plan B) denote[s] a discrepancy of intentions." The fog of ambiguity, rather than

promoting inclusion, is undermining trust. Following Nabil's and Tom's last emails, this was the last message from Pierre.

The existence of Technica soon becomes a topic of interest for the two other remaining participants in the discussion. For Joe, this is an "irreparable split" and he then ponders: "If Technica is dead, I will stop paying [for the server]." He adds that "We [Joe and Lynn] are not Technica, nor are we reliant on Technica. We never were. We have always been peers. It's been fun. Best wishes." Joe and Lynn are also making themselves distant from Technica while leaving space for others to construct it. They also refer to a new "we" while excluding themselves from the previous "we." Joe does consider revising his position: "if Technica is not dead, we'll [Joe and Lynn] rock on, assuming Technica members want to keep dancing with us."

While Sergei argues that "Technica is not dead" and Edson refers to this discussion as a "kindergarten just open at Technica," Nelson, "thinking of a Monty Python skit," requests them to "stop this bullshit." He poses some questions about Technica's "current state. Whose name is on the lease? Whose name is on assets? They have legal rights. The network has none. A network that has no legal levers can never have any rights." Nelson goes more deeply into issues that were somewhat taboo and brings them out for resolution. At this point, as no other member engages, the thread becomes a dialogue between Sergei and Nelson.

As Sergei repeats, now more emphatically, "Technica is not dead!" and how "it is very real, alive, and kicking" because "two individuals or more can hold it up," because "we have plenty of documentation (documents, presentations, videos, etc.) to clearly

demonstrate the intention behind the association, its mission, its identity, how we are collectively thinking to share assets, etc." The possibilities to perform organizational identity work become increasingly limited.

The issue has gone beyond tensions over priorities for the organization to a debate on whether Technica exists as an organization. Sergei keeps on performing organizational identity work to prove Technica's existence. Whether or not Nelson is convinced, he is no longer in the conversation. Sergei can now define Technica in virtually any way he wants. For example, he talks about Technica as a "fluid entity that runs through the fingers of those who want to grab it!" without anyone questioning this definition. This process was not an *accommodation* of issues as an exchange of discursive spaces but rather a resolution through the departures of conflicting voices.

What we have seen then is a series of permanent rather than temporary concessions of what Technica is about. As organizing activity was disappearing, organizational identity work was going beyond a core tension to a debate about Technica's existence. Ironically, organization was disappearing as organizational identity work was being performed, leaving little organization to define and be defined, as I discuss next.

5.4 Discussion and conclusion

The starting point of this research has been to explore how people's everyday organizational identity work enables cohesion among individuals with different perspectives and priorities. I have reviewed two competing streams of literature and argued that the processes presented in these studies risk breaking organization apart. I have presented a series of processes through which organization was held together for four years followed by the contrasting processes which appeared during the split.

In this section, I start with a discussion on how organizational identity work can keep on being performed through paradoxical processes that are counter to understandings of organizational identity. I follow this with a discussion of how interplay between organizational and individual identities and agencies enables cohesiveness. I then discuss how organizational identity work can, paradoxically, divert attention from that which is central, distinctive, and enduring about the organization, and review the dangers of strategic ambiguity. I close with suggestions for further research.

5.4.1 Organizational identity work collectively generating ambiguity

We have seen *Disengaging* as people not doing or rejecting organizational identity work, *Venting* as individualized and unilateral constructions of "who we are" without direct impact on practice, and *Accommodating* as temporary and often conditional concessions towards a consensus in specific and tangible instances.

These collective processes, which involve a lack of interest in identity, increasing divergence and obfuscation of the core issues under a cacophony of understandings, and ephemerality and fragmentation enable individuals with different perspectives and priorities to keep on performing organizational identity work in collective interaction. However, this work generates ambiguity without resolving it. While previous studies on strategic ambiguity focus on the individual, I present how these three processes in everyday interaction provide for the ongoing suspension of an organizational identity as a more stabilized and enduring form (Part 1), preventing an organization from splitting apart (Part 2).

In *Disengaging,* ambiguity is generated when people do not participate actively (or at all) in identity-like discussions, leaving others to speculate on their intentions. In

Venting, it is quite the opposite. Here people are actively engaged in providing their viewpoints about the organization, so while we gain an understanding of each one's position, any kind of collective resolution appears farther away. In *Accommodating,* when a decision is required, some people's opinions about the organization change compared with their individual trajectories, leading to temporal ambiguity, as patterns from the past have been broken (i.e. what to expect in the future? Was it an exception or the new norm?).

Indeed, these processes would not appear at any particular level, and are all considered in interaction. *Disengaging* cannot happen if people do not provide material to disengage from. *Venting* does not appear without considering the narratives as a whole, because individually each person presents a more or less coherent narrative for the organization. (With grounded theory, these narratives would be aggregated to pull out main themes). *Accommodating* can only make sense if there are other understandings to accommodate-i.e, accommodating imply people having to tone down or withdraw their claims and enabling others to define the organization. Without needing to compromise with others, people would not provide such modified constructions about the organization but their preferred ones, so to speak. Without accommodation (as in Part 2), the organization could risk a splitting, and a split could potentially put a stop to that kind of narrative altogether.

As we have seen, the crisis took place as *Disengaging* was "blocked" because people were engaged and important players had little choice but to engage to solve the issues at hand. Neither was *Venting* possible because the operational decision called for an identity resolution, and not resolving important issues collectively would likely have led

to a split too. They were left with *Accommodating,* yet this time it did not work because people were not willing to concede. Rather than exchanging discursive spaces, members defined the organization based on their own priorities (somewhat like *Venting—yet* with a need to resolve). In this way, we see typical meaning-making processes identified in studies of organizational identity, yet in this case these same processes broke the organization apart.

Furthermore, individual performances of organizational identity work appeared, paradoxically, as work to avoid constructing organizational identity. In *Disengaging,* shifting discussions about organizational identity to the everyday mundane, or preventing identity-flavored discussions to take place, moved the focus away from deal-breaking core issues. While agreements in *Accommodating* were ephemeral and somewhat controversial, they provided more material for *Venting* to keep a narrative going.

In contrast, when we see the efforts converging on enduring understandings that were central and distinctive, efforts that we typically see in studies of organizational identity (see Gioia et al., 2013: Brown, 2015), organizations risk collapse. Indeed, Part 2 was characterized by intense collective engagement, sensemaking, and enduring agreements that had not appeared during the previous four years. Shared and enduring agreements on that which is central and distinctive can indeed be "created, sustained, and changed" through an interchange of "definitions of the organization offered by all organizational stakeholders who join in the dance" (Hatch & Schultz, 2002: 1004). Organizational identity is indeed an ongoing discursive abstraction, but it requires people to perform it,

and such performances can come at the expense of the ongoing participation of some performers.

Indeed, in situations like these with high and plural divergence, in which individuals have little choice but to resolve, agreements take place as people no longer "see" themselves "fitting" into the very organization that they are constructing. This situation is similar to studies in which identity work produced resolutions that solved an identity crisis (e.g. Patvardhan et al., 2015), yet the case of Technica suggests that the resolution of an identity crisis may occur through a split. In other words, resolving an identity crisis may lead to the organization's demise.

When disparate views emerge like at Technica, collective sensemaking can strengthen individualized views and boundaries. While in situations where this is treated in a more temporary, ephemeral, or exceptional (yet eventually recurring) fashion like in *Accommodating*, organization continues until the next issue that requires *Accommodating* arises, and so on and so forth. However, working towards enduring resolutions about "who we are" and "what we do" may force a split. In this way, that which is central and distinctive about the organization becomes enduring as people no longer struggle over definitions; they distance themselves from the organization and quite likely cease to care about the organization's identity.

5.4.2 Collectively restraining individual agency and gaining collective agency

Based on the findings of this study, I argue that the collective can gain agency and keep organizing going, hence allowing organizational identity work to keep on being performed as individuals who are co-constructing it are alienating parts of themselves in

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the process. As we have seen in *Accommodating,* while people may indeed reach a consensus, implicitly or explicitly, they may be providing constructions that they either do not favor or may even reject. In contrast to studies such as Gioia et al. (2010), the micro-interactions that we have seen in *Accommodating* suggest that consensus can create and heighten divides. While consensus enables collective decision making in some instances, it may underlie the creation of a social object with which no one fully identifies, and from which individuals may emancipate, under the type of collective sensemaking we see in Part 2.

Indeed, we have seen in *Accommodating* how this ongoing collective political struggle for spaces to perform organizational identity takes place. For example, in order to avoid a potential split, we have seen Sergei convincing hardcore "open source members to support Pierre's patent proposition. These members were granting Pierre's claims for the organization while disagreeing with them individually. To reciprocally reach a common denominator, individual opinions may be forced to be "toned down" or even presented as the opposite in exchange to help others to save face.

Whether in an implicit or explicit reciprocity exchange (you can win this battle but the next one is mine) or some understanding that one still is better off by sacrificing one's own views for the organization (e.g. to avoid a split and potentially eventually see some financial return on time invested), the ensemble of constructions about the organization, particularly in horizontal contexts and when "push comes to shove," are the construction that *can* be made in the situated context of interaction. This situated context of interaction, as mentioned earlier, is shaped by these very performances.

Collective engagement and *sensemaking* as processes may trigger emancipation from an individual's own creation, enabling shared agreements at the expense of organizing.

These findings contrast with Ashforth and Reingen's (2014: 503) study of a co-op when they refer to "the trap of lame compromise." In their case, two "groups did not simply compromise or integrate their orientations." According to these authors, a compromise would "negate the essence of each side […] turning the black and white in impotent grey" (p. 506). However, Ashforth and Reingen (2014) by locking people in a duality, do not explain how organizational-level agreements and decision-making, which are arguably inevitable, would take place and keep the organization going. What I show in this study is that, in order to keep on performing organizational identity work, people may need to cede space for others and grant claims they disagree with, in order to still be able to (potentially) provide constructions in the future.

5.4.3 Struggling over "who we are?" and getting some other work done on the side (or the performance of non-performance)

In previous studies, about struggles over identity, one may wonder when people can get a chance to get any other work done. Ashforth and Reingen's (2014) study, for example, explains a series of rituals in managing the tensions between "idealists" and "pragmatists." What is apparent from their study is that for that organization neither cooperative values nor running the business were central, but the battle between them was the defining characteristic. In the case of Technica, I show that there were no specific rituals to counter tensions but rather uncoordinated everyday interactions that generated ambiguity. Ambiguity was indeed instrumental to accommodate tensions that allowed organizational performance to be considered satisfactory and supported by

grants (Part 1). When the situation changed (grants were ending and sales no longer appeared around the corner), focal actors required clarifications in order to work out or even be able to "see" the possibilities for generating revenue in the near future (Part 2).

Not engaging in discursive struggles about identity does not mean a lack of interest in "who we are as an organization," neither does it imply an "anything goes" or "let others decide for me" orientation (although that can happen too). Organizational identity claims are meta-constructions about that which is important for the organization and subsidize organizational identity work (e.g. discourse about the importance of the sensor rather than hands-on R&D work). While the vast majority of the constructions about the organization were proposed by open camp in *Venting,* in the few discussions in *Accommodating,* with important real-world consequences, the decisions made by the closed camp. That is to say that an aggregation of separate constructions (as in grounded theory oriented-studies like Corley & Gioia, 2004) can indicate overall themes in an organization yet, without situating the themes in a context, aggregating into themes can overlook how people would be constructing in everyday organizing interaction, and in different situations.

Indeed, while there is practice work (as in Chapter 4), there is also practice as an everyday, mundane, and often non-discursive activity (e.g. working on sensors). While the two types of constructions (discursive and non-discursive) about organization do not clash directly, organization can be kept cohesive because one construction about the organization is at the level of discourse and the other at the level of practice. As we have seen in Part 2, it is when people make sense of and argue for practices through discourse that understandings collide. By keeping practice and discourse levels apart

(*Disengaging* and *Venting*), conflicting understandings of an organization can function in parallel. When these conflicting understandings need to converge (*Accommodating*), they are both reconstructed in that particular situation.

My point is not that a minority, usually top managers, construct "who we are" on behalf of everyone else. Rather, as we have seen in Technica, in Part 1, some members did not engage in a discursive battle about the importance of sensors (*Disengaging*). By constructing the organization through discourse, as we have seen in Part 2, people inevitably construct the organization as an identity project, and provide material for others to perform organizational identity work.

Involvement in organizational identity work, besides making values and practices clash, potentially takes time to do the mundane work on that which is central, distinctive, and enduring about the organization. Indeed, what triggered the need for resolutions and hence the split at Technica was not that ambiguity was unable to accommodate divergences but rather that ambiguity was hindering productivity and ultimately revenues. Not-performing, ignoring, or rejecting organizational identity work enables cohesiveness and hence further organizational identity work performance.

5.4.4 Cyclical patterns of dissolution

While ambiguity can indeed accommodate divergent understandings (Eisenberg, 1984), there is a limit to what it can accomplish when understandings are too divergent. At Technica, views were diametrically opposed often emerging in certain types of interactions among co-founders. While in *Venting* these views were talked about without organizational impact, in *Accommodating,* collective "yes or no" decisions were required which had real-world impact. Indeed, in some cases ambiguity can only

accommodate divergence within one camp, either "yes" or "no". Strategic ambiguity would thus be insufficient for organizational decision-making in such cases. Ambiguity was also hindering the coordination of revenue-generating activities, to which some members pointed as a reason for split.

Besides problems typically associated with ambiguity, I highlight how ambiguity, whether or not strategic, may lead for a sudden (and potentially dealbreaking) call for resolutions. Yet, resolving ambiguity appears as a matter of course in studies such as Corley and Gioia (2004).

Abdallah and Langley (2014: 236) talk about strategic ambiguity in terms of "cyclical patterns of development and reorientation," i.e. resolving ambiguity when the multitude of interpretations become problematic. The case of Technica shows ongoing *widening* and *narrowing* of definitions over similar issues with a series of *accommodating* temporary resolutions throughout the years -until the final accommodation when the split occurs. The point is that these patterns of resolution do not always rest at a cognitive level of meaning and these processes cannot be surgically controlled, i.e. ambiguity and resolutions can escalate.

While studies on strategic ambiguity focus on top-down elaboration of strategic plans, I suggest that the ongoing interplay of ambiguity and clarifications is not so easy to control. Indeed, previous studies focus on the individual yet overlook the interactions between individuals. Here, I present ambiguity as interaction. I highlight how strategic ambiguity can raise doubts about the intentions and integrity for self and others, raising issues of trust, and thereby taking the interaction to a personal level (i.e. blaming).

Simply put, even if organizational identity is a discursive construction, there are inevitably humans with feelings and emotions involved.

In short, *narrowing* and *widening* definitions also affect the humans involved. While meanings have been and could have been repaired, this time differences reached a point of no return, whether or not it was an unintended or unexpected result of organizational identity work exchange. In previous studies, the reader is left with the impression that meaning can always be formed, strengthened, and repaired, and that "business as usual" resumes after struggles over something as sensitive as identity. However, as this case revealed, "who we are as an organization" goes beyond agreements on central, distinctive, and enduring features about the organization.

5.4.5 Further research

While these findings are more readily transferrable to pluralistic organizations, as Technica is characterized by organizational members having a "say" in overall *widening* of definitions, further research could extend the understanding of cohesion presented by these findings by studying these processes in a corporate context where top-down hierarchy is clearer, with an orientation to *narrow* definitions, and where individuals are presented with little choice but to conform (Alvesson & Wilmott, 2002). Studies in contexts that have an overall *narrowing* orientation and with higher costs of departure (e.g. Technica, there were no salaries in a more formal sense) would yield further understandings of these processes of cohesion (and lack thereof).

Another area of further research could involve a closer consideration and construction of the media in which these interactions take place. I have noticed through the study

that online and offline meetings provided different possibilities and constraints for the performance of organizational identity work. For example, it is arguably easier to *disengage* through email than in face-to-face interaction. Besides, online exchanges were able to reach a broader audience, allowed for more reflection, and kept a written record of past discussions. For example, perhaps the discussion in which we saw a split would have had a different outcome if it had taken place offline, and somewhat more privately. Further research could explore how the construction and choice of different spaces for interaction enable and constrain organizational identity work.

Finally, these findings indicate that organizational identity work goes beyond a negotiation of meanings about that which is central, distinctive, and enduring about the organization. Indeed, organizational identity as a discursive abstraction can always be reframed and repaired, if the authors are willing to do so. However, an evaluation and negotiation of "who am I" and "who we are" goes beyond a rationalization of "fit." For example, hiring processes, particularly during interview stages, extend beyond matching the job description and the meanings provided by the applicant.

Indeed, further understanding can be provided with the development of these unconscious, affective, and emotional dynamics with a more intimate understanding of the individuals involved (Drive, 2015; Oliver & Roos, 2007) coupled with an understanding of the organizational identity work that they end up performing in situated interaction. For example, video recording and having participants make sense of their own performances can enable insights on "why" such performances are made, assuming however that explanations given by the participants are another form of identity work rather than the truth about his or her intentions at the moment.

Thus, agreements upon central, distinctive, and enduring features about the organization, can, paradoxically, come at the expense of organization. When people would theoretically share understandings about "who we are" and "what we do," they risk no longer sharing the same organization. I demonstrate how recursive processes of narrowing and widening definition can undermine cohesion. In this way, I argue how individual efforts and resulting collective interactions that keep organizing ephemeral and fragmented enable holding organization together, allowing for identity work to keep on being performed.

6. Discussion and conclusion: From organizational identity to organizational identity work

This thesis started with as an exploration of organizational identity formation from inception. However, as my studies led me closer to everyday life, I began to see the need to shift to a process perspective (Hernes, 2008; Hernes, 2014) to further understand ongoing processes of constitution. In the thesis, I have developed the concept of organizational identity work (Chapter 1) with a case study at Technica (Chapters 2 and 3) involving the exploration of different aspects of organizational identity work in two empirical articles (Chapters 4 and 5). In this section, I recap the research questions, synthesize the contributions for theory and practice as well as discuss limitations, boundary conditions, and suggestions for future research.

6.1 Research questions and developments (a recap)

As we have seen in the Introduction, this thesis project, until about an year after the thesis proposal (Fachin, 2013b), was oriented towards exploring how an organizational identity comes to be through a series of meaning-making processes over time. Initially, informed by reviews of previous literatures on organizational identity formation (see section 1.2 and Fachin 2013b) my research questions were then somewhat along the lines of "how are organizational identities formed." Yet, as I was doing fieldwork and getting closer to analysis of the phenomenon at Technica, I was either unable to pin down an organizational identity (because it was always changing) or I would find, paradoxically, a series of organizational identities "before" organizational identity, to use Fiol and Romanelli's (2012) term (by comparing a sequence of things over time). In

short, based on these assumptions gleaned from the literature, I was not able to explain how and when an identity in Technica would be formed.

I then approached organizational identity formation without assuming that an organizational identity can be formed and stabilized in the process. This next assumption informed what we now read as Chapters 1-5. As the thesis shifted ontologically to process, so too did the categories of analysis and research questions. Operationalizing organizational identity work, rather than organizational identity, I rendered Albert and Whetten's (1985) tripartite in processual terms in order to explore organizational identity formation. I then asked: *How do people construct that which is central, distinctive, and enduring for and about the organization in everyday organizing?* This overarching question is approached differently in three research articles (Chapters 1, 4, and 5).

Chapter 1 is conceptual and asks *how can organizational identity formation be conceptualized by adopting a process perspective?* The objective here has been to conceptualize organizational identity formation not as processes that lead to transitions between states (e.g. Fiol & Romanelli, 2012 – see Chapter 1 for full review) but *as* processes (Hernes, 2008). If an organizational identity cannot actually be reached, the question then becomes oriented towards understanding the reproduction of different constructions, in their own right, about a particular "we."

In Chapter 1, I then unpack organizational identity as strings of accomplishments and explain how organizational identity work enables and constrains everyday organizing and hence its own reproduction. Doing so, I shift the understanding of endurance, from

continuity in a temporal sense (see Gioia et al., 2013), to the capacity to keep narratives about the organization going. With this rethinking of endurance, mobilizing discourses about the past, present, and future (e.g. Ybema, 2010) appears as a rhetorical tactic that enables continuity.

Indeed, Chapter 1 also argues that organizational identity work is rarely a self-sustainable activity. Here I develop theory about how material and varied non-discursive resources enable and constrain organizational identity work to endure. I argue that organizational identity work can only come to be in the situated interaction of performance in organizing-and that organizational identity work is intertwined with organizing. Previous studies on organizational identity formation (e.g. Gioia et al., 2010; Fiol & Romanelli, 2012 – see Chapter 1 for a review) and organizational identity work (e.g. Kreiner et al., 2015) focus instead on the processes related to an entity that are somewhat abstract from the organizing process.

Considering organizational identity work as a co-construction, Chapter 4 finds that, with a few exceptions, interactions among participants in the organizing process have not been sufficiently analyzed directly in empirical studies. Chapter 4 thus explores everyday conversations to develop theory about the *real-time and naturally-occurring processes of organizational identity formation from inception* with a focus on the types of *performance* of organizational identity work. Chapter 4 contributes with a framework of four types of work that, through ongoing interaction, constitute a provisionally stabilized flow that influences other members in the organizing process.

Chapter 4 thus provides an understanding of how, in performing organizational identity work in everyday organizing, individuals are doing much more than providing constructions about "who we are" and "what we do." People define their own roles and positions in the organization, performing organizational identity work without necessarily a concern for organizational identity. In the process, however, they are able to gain agency to influence others, including (and in some cases, as we have seen, especially) when they position themselves as an outsider or peer rather than a member.

Chapter 5 asks *How does people's organizational identity work in the everyday enable cohesion among individuals with different perspectives and priorities?* Chapter 5 focuses on the *effects* of organizational identity work performed by individuals and finds three processes of interaction that hold organization together. Dissolving the dichotomy between process and entity, so that organizational identity no longer appears as an entity subject to processes, appears in Chapter 5 as intertwining identity work and organization. Without assuming the existence of an organizational identity analytically, Chapter 5 demonstrates how individuals are able to make the organization (the "target" of organizational identity work) disappear as they are performing it.

While Abdallah and Langley's (2014) research is to my knowledge, the only study to explore the *consumption* of strategically ambiguous texts, Chapter 5 goes further in that direction by focusing on ongoing interactions and contributing to an understanding of *how* ambiguity is both created and consumed in everyday organizing activity. While demonstrating the dangers of using ambiguity strategically, Chapter 5 shows how ambiguity in interaction contributes to holding the organization together, allowing organizational identity work to be performed. Furthermore, Chapter 5 explains *how*

ambiguity may accommodate divergence while potentially hindering the more mundane organizing processes that make performing organizational identity work possible.

The understandings provided in Chapters 4 and 5 are enabled by the use of naturally-occurring data as the performances have an actual impact on organizing. (For example, blaming a third party in a closed interview setting is different from blaming that person directly in a community decision-making process because the blamed person would hear it and potentially react to it. If the context had been during organizing activity, perhaps no blame would have been assigned in the first place.) Analytically, this thesis contends that the decontextualized aggregation of themes (e.g. Corley & Gioia, 2004) is very different from analyzing data from people in situated interaction who are struggling for their preferred versions of "who we are" and "what we do." I now develop a discussion of these theoretical contributions in the light of broader long-standing debates.

6.2 Theoretical contributions and broader debates

Here I highlight particular contributions of the preceding chapters as well as articulate them in relation to broader themes in the literature. With the dissolution of dualisms between process and entity, stability and change, and agency and structure, these contributions address respectively three overarching themes: (6.2.1) the development of organizational identity *as* process, (6.2.2) endurance in organizational identity and process studies, and (6.2.3) agency when considering organizational identity as process. Drawing on these, I argue finally for reinforcing the understanding of dualisms with an either-or framing (6.2.4) for organizational identity (removing entitative assumptions

from process studies and removing process ontology assumption from entitative studies).

6.2.1 Organizational identity *as* process

Concerning the first theme, as we have seen in Chapter 1, many previous studies of organizational identity formation and organizational identity work as process tilt towards a substantive ontology to account for stability, which is at the core definitions of organizational identity. Common to these studies is a set of elements, characterized by a series of states that are linked to a set of transitions, leaving unexplained many of the social relationships that would have led to these states. This thesis moves away from the idea of sequences of state in transition by considering organizations not through processes but *as* processes to enable different insights into organizational life (see Hernes, 2014).

By developing a view of organizational identity as a process, Chapter 1 provides and develops the insight of organizational identities never coming to be as an entity but as being always in formation. Questioning the assumption of previous studies that a higher or more coherent level of understanding would be in the making, Chapter 1 shifts from organizational identity to organizational identity work (without considering this as work on an organizational identity).

These understandings contribute to the studies on entrepreneurial, collective, and organizational identity literatures that are concerned with the creation of a new identity from inception (e.g. Gioia et al., 2010; Oliver & Vough, 2012). While conceptual (e.g. Gioia & Patvardhan, 2012) and empirical (e.g. Kreiner et al., 2015) articulations of identity processes often revert, paradoxically, to a substantive ontology as the study

evolves, in Chapter 1, I develop theory on how going further in process thinking, rather than taking a step back from it, enables our understanding of what comes to be taken for granted as entity, stability, and endurance in organizing activity.

Chapter 4 treats organizational identity as process by exploring the naturally-occurring and real-time processes of organizational identity formation. Through *integrative work,* we saw how individuals can provide provisional arrangements of a cacophony of *ideological, practice,* and *boundary work* in situated interaction. Chapter 4 explains that organizational identity, rather than being inherently stable, requires incessant patching up that simultaneously "unpatches" and "repatches" other processes, in virtually endless accomplishments-insofar as and *because* the organization in question is alive. By revisiting the ontological status of organizational identity (see Chapter 1), Chapter 4 is able to explain the underlying process that sustains what, under a different perspective, might appear as an entity.

Chapter 5 shows that organizational identity work goes beyond collective performances and interactions to define "who we are" and "what we do." Through organizational identity work, people are organizing, making sense of, and engaging with people who are crafting their own working identities as they relate to the understandings that are being negotiated. Chapter 5 demonstrates how the "outcome" so to speak, of people performing organizational identity work, is unexpected. Indeed in Chapter 5, the focus is not on the content of the performance (e.g. whether someone's organizational identity work is "ideological") but on how these performances, whatever they are, relate to each other as they play out in interaction. Capturing the world on the move without reifying it (see Hernes, 2014), Chapters 1, 4 and 5 contribute to process studies by showing *how*

dualisms are overcome (Langley & Tsoukas, 2010) and how organizational identity can be conceptualized as a process (Schultz et al., 2012; Gioia & Patvardhan, 2012; Pratt, 2012).

6.2.2 Enduring endurance

Regarding the second theme of endurance, Chapter 1 contributes to process literatures by dealing with the issue of identity stability without reverting to a paradoxical both-and (process and entity) framing which, ontologically, turns out to be an entity subject to process (even if the focus of the study is on the processes and with terms like "organizational identity work"). This thesis presents different assumptions about stability. Chapter 1, conceptualizing endurance as the capacity to give continuity to particular identity narratives, goes beyond discursive construction of "who we are." Chapter 1 thus explains the means (discursive or others) through which individuals can enable and constrain performances of organizational identity work. While previous studies consider endurance as some kind of interrelation between process and entity, Chapter 1 conceptualizes endurance *as* processes, contributing thus to the "most controversial" pillar in studies of organizational identity, and subject to long-standing debates (Gioia et al. 2013: 2).

In Chapter 4 such an understanding of endurance is enabled by the ongoing *integrative work* through which an individual is able to arrange conflicting understandings promoted by others. In this *integrative work*, while individuals are articulating these understandings provided by others, they are gaining a particular type of agency to influence the conversation and keep it going. In Chapter 5, we see how the performance of this *integrative work* is nonetheless compromised, paradoxically, when the

conversation shifts to a collective effort of resolution and integration, leading to a split. In this case, rather than one individual, we see many people wanting to integrate and resolve, positioning themselves outside the boundaries that are being constructed.

Chapter 5 thus contributes not only to literatures on organizational identity work but also to studies on strategic ambiguity (e.g. Abdallah & Langley, 2014) and dysfunctions in organizing (e.g. Ahsforth & Reingen, 2014). This contribution demonstrates how ambiguity is not sufficient to hold together excessive discrepancy without impacting organizing. As well, as how, Chapter 5 demonstrates how ambiguity in interaction can hardly be controlled with the precision that previous studies imply. In interaction, ambiguity and tensions can escalate in unexpected directions, with the risk that people shift their efforts from defining the organization to defining the individuals in it.

6.2.3 Individual agency and agency collectively

The definition of organizational identity work as "*ongoing individual or collective efforts to form, repair, maintain, strengthen or in other ways influence understandings of the central, distinctive, and enduring characteristics of an organization,*" operationalized in Chapters 4 and 5 raises questions about agency (the third theme), notably through the use of the word "influence." Who has more influence than others, and how? While these questions were not investigated directly, the issue became salient in Chapters 4 and 5 in particular, providing insights into this question. In previous studies (e.g. Kreiner et al., 2015), as we have seen in Chapter 1, individuals are granted equivalent agency to influence understandings-or agency as negotiated with the interviewer. In this section, I develop how Chapters 1, 4, 5 provide contributions to

the notions of agency in organizational identity and process studies (Hernes, 2014; Sandberg et al., 2015) with a focus on everyday organizing activity.

In Chapter 1 we have seen how the notion of agency gets complicated as we approach a collective with a process ontology. Indeed, while it is rather straightforward to identify the actor in studies of individual identity work or studies of organizational identity as a social actor, in a study with a process ontology the potential agents would appear decentered in a fluid network (i.e. anything or anybody could be an agent). Chapter 1 provides the notion of easy and hard work in situated interaction as intertwined with a performance. Different forms of agency enable and constrain further possibilities to influence understandings about an organization, but no consolidated structure (organizational identity) is ever definitively formed.

In Chapter 4, the focus was on the individual, micro-accomplishments, and performances. In Chapter 4, human agents are assumed to be relatively free to perform *ideological, practice,* or *boundary work.* Yet the influence of these performances on the collective is situated, and not possessed by the individual (for example, co-founders were influential in some instances yet not so much in others). In particular, in *integrative work* we were able to see how a human agent is able to integrate conflicting constructions and enable a temporary sense of cohesion by moving outside of the symbolic boundaries of the organization, boundaries he was defining himself.

In this way, an individual is able to place himself in a position in which he can *integrate* the understandings of seemingly more influential members during a particular conversation. (In Chapter 5, during the split, many individuals were competing for such

subject positions and the *integrative work* turned out to be weak and did not sustain.)

In the case of Technica, co-founders in particular had limited agency to perform *integrative work* (and thus exert certain types of agency) because they could not easily construct themselves as outsiders and hence be granted this more "neutral" position required for this *integrative work*. Paradoxically, in such a horizontal setting with a plurality of legitimate opinions, it was rather those who did not explicitly present a claim or an opinion who were able to orient the conversation in a certain direction (i.e, those who were able to argue *not* to have a "say" ended up having, in a sense, a "say").

While studies on organizational identity work like that of Kreiner et al. (2015) do argue that some people are more influential than others, in their empirical study individuals are granted similar agency. Studies like these, while presenting valuable insights on how people construct the organization in tension with others, present individuals with relatively static subject position (they are unquestionably "in" the organization) and detached from the organizing process. In *integrative work* in Chapter 4, for example, we can see how shifting subject positions in the course of interaction, while (de)constructing boundaries, grants determined types of agency to provide constructions and influence others on "who we are" and "what we do."

In Chapter 5, agency to influence others is approached with a perspective on the collective and as a longer set of interactions. In a way, Chapter 5 focuses on how tensions are accommodated rather than who is accommodating them and how (as in Chapter 4). When people in the organization have divergent and even opposing views of organization, when "push came to shove" and a decision was required, we saw members granting the constructions of their "adversaries," in a struggle for discursive spaces to

perform organizational identity work. In the process, people's positions are toned down to reach some commonality that enables the taking of collective action (i.e. individuals agreeing on a certain set of ideas and course of action). This reciprocity allows individuals to keep on performing organizational identity work because the organizing process can still be carried on.

Such understanding is made possible by considering the collective not as homogeneous groups, as in Ashforth and Reingen (2014), but as intricate and shifting webs of relations among individuals in the organizing process. Simply put, by unpacking the boxes of a collective and moving away from identifying specific groups, Chapter 5 is able to advance the understanding of how, paradoxically, being able to define the organization in a horizontal setting involves granting the claims of other individuals (yet not of another "group" as a whole), particularly those with which one disagrees. It is with the dissolution of individual, group, and organizational levels of analysis that Chapters 4 and 5 contribute to providing insights to the understanding of the agencies of individuals in a collective.

6.2.4 Either-or framing

While sections 6.2.1-3 were about dissolving dualisms, in this section I reinforce the analytical distinction between process and entity. In a way, section 6.2.1 is processual because entitative assumptions were abstracted away from the thesis. In other words, assumptions about organizational identity as entity would potentially be another type of study, providing different insights. Yet these different insights cannot be generated in the same study (a both-and framing is ontologically entitative).

In studies of organizational identity, the dualism is represented by the umbrella-like social actor and social constructionist perspectives. While, as we have seen, authors have recently argued for a both-and framing to provide a "comprehensive portrayal of the processes by which identity develops," (Gioia et al., 2010: 32; see Chapter 1 for a list of authors), I have explained the problems of combining these different ontological and epistemological assumptions and argue for the opposite approach: either-or framing.

Specifically, I have argued for a clear division between organizational identity (substantive ontology) and organizational identity work (process ontology) (i.e. either one or the other, but not both, in the same study) to provide an understanding of two parallel and mutually exclusive (rather than reciprocal or mutually constitutive or recursive) dimensions of organizational life. This is what has been attempted in this thesis with the emphasis on the process view. As I have argued in Chapter 1, making this choice avoids analytical reification and the dichotomies between process and entity, enabling the conduct of empirical analytical work. In terms of conducting research with a process ontology, the methods adopted in this thesis made this possible, as we will see below.

6.3 Methodological contributions

A methodological contribution (Chapter 2) is articulated in this thesis from the starting point that organizational identity work does not exist independently of its context of reproduction (Chapter 1). The insights provided in this thesis could not be produced without naturally-occurring data of everyday interactions. This thesis would have had no choice but to shift to a substantive ontology without the required data for a process study (see Chapter 2; Fachin & Langley, forthcoming – see Appendix). In particular,

with Chapter 2 this study lays out an approach and a methodology for a process perspective, following calls for empirical processual research (Langley, 2007; Garud et al., 2015), using a wide range of naturally-occurring interactions with both online and offline data.

Indeed, while offline and online ethnography ("netnography," Kozinets 2015) are typically presented as separate domains (see Tunçalp & Lê, 2014), this thesis integrates them to provide more richness in accounts. As Kozinets (2015) points out, using data available on the internet is advantageous as it is cost-effective, accessible, and unobtrusive, yet risks offering non-contextualized data, misleading representations and analyses. This thesis, as we have seen in Table 2.1, by relying on a great deal of both online and offline data, was able to produce a dataset that reflects the different types of interaction (emails, conversations, online/offline meetings) through which people construct "who we are" and "what we do" in organizational life (particularly in Chapter 3). In doing so, this thesis bridges ethnography and netnography.

6.4 Implications for practice

In this thesis I have argued for the dissolution of dualisms and a new way of seeing organizational identity (see Chapter 1). By considering organizational identity formation *as* organizing rather than a level above the mundane, this thesis has explored further the idea of what performing identity work does in everyday organizational life. For example, organizational identity work in interaction enabled decision-making (Chapter 4) as well as lead to a split (Chapter 5). Yet, what does an ontological shift like this mean for practitioners, in more concrete terms?

In more recent times, we have in many cases seen more "outsiders" than "insiders" as key players in organizational identity work. In platforms like Facebook, we have seen the number of "likes" as being important for discursive constructions to move up and thus gain a fighting chance to influence others. The competition for attention is high these days (Alvesson, 2013). In a way, then, influencing others is not about focusing on the content of the claim itself but instead, its influence is only considered by the extent to which the claim is read or heard by other people (becoming a social event), hopefully engaging others to keep a narrative going in a certain direction. This is a different orientation from performing organizational identity work in the abstract or without any preoccupation for engaging others.

For practice, this orientation involves considering shifting from "who we are, what we do, and to whom do we express it?" to "what kind of conversation am I starting or intervening in with organizational members and other stakeholders?" Such an orientation may imply letting go of performing preferred constructions about the organization for the moment in order to be able to have a chance to do so later.

Furthermore, clients' constructions about organizations in sites like TripAdvisor are, for some audiences, more influential and even more credible than the company's official website (Scott & Orlikowski, 2012). As argued in Chapter 1, unlike individual identity work, in organizational identity work virtually everyone is a potential agent (e.g. anyone can say "Microsoft" is "reliable" or "unreliable" – you choose the claim – agency to influence understandings is explained in 6.2.3).

In such cases, the ability to influence understandings about the organization through institutionalized claims are limited, and may even backfire depending on how the organizational voice that is used to provide justifications is interpreted and negotiated by audiences. With this understanding, organizational identity work may be more effective if performed indirectly, guiding interactions and the flow in a desired direction (see Chapter 1), with minimal visible intervention, recognizing that one does not have the same type of control and possibilities when considering an emerging, fluid, and uncertain "who we are" (see Chapter 5) compared to "who I am."

In practice, then, this involves having control over the medium and format in which the ways interactions will take place (e.g. the company's website vs. a third-party website for reviews) rather than what the organization would itself claim in its own behalf (of course, such a claim would actually be made by a human). This approach would include considering the strategic "outsourcing" of organizational identity work. Chapter 5 demonstrates how shared understandings cannot be co-constructed in isolation and how this impacts the organizing process. This understanding implies implying that *not* struggling over definitions may be instrumental in some situations to let undesired constructions of the organization die on their own, while contesting them may sustain them. Individual dissociation from the organization *(boundary work* in Chapter 4) enables an individual to gain more agency to promote constructions that may be considered more credible and hence be more influential to particular audiences (yet not others).

6.5 Limitations and boundary conditions

You cart a pig into my living room and tell me that it can talk. I say, "Oh really? Show me." You snap with your fingers and the pig starts talking. I say, "Wow, you

should write a paper about this." You write up your case report and send it to a journal. What will the reviewers say? Will the reviewers respond with "Interesting, but that's just one pig. Show me a few more and then I might believe you?" (Siggelkow, 2007: 20)

The main limitation of this thesis is its potential for transferability of the findings, a concern that can be raised for virtually any single-case study. The case of Technica is yet more particular because it rings out as an extreme case, and could even be considered as an "absurd organization" (Weick, 1974, his term; see more on 2.3). While I focus on promoting transferrable insights at the level of process, I do not deny that there are limitations of a single site research. Indeed, I recognize the limitations to provide comparative insights that can enable formulating transferable theory (Langley, 1999). In this section, I aim to provide and discuss the boundaries of these insights.

This thesis is oriented towards unveiling a new theoretical relationship with a fine-grained understanding of what is typically treated as an entity or even a black box, with the exploration of interactions at a level of analysis that has been neglected or downplayed by previous studies. In other words, the strength of this thesis is not in its empirical generalizability, but in its ability to reveal conceptual dynamics that were absent in other studies.

By following Lincoln and Guba's (1985) recommendation of providing a thick description of the case however, I offer readers the potential to assess for themselves the relevance and transferability of the ideas presented in the empirical articles. Thus, in Chapter 3, the case studied was described in great detail, in almost 60 pages. This depth enables the reader to evaluate the extent to which the findings would be transferable to others settings taking into account the patterns of interaction, relationships, and overall

idiosyncrasies of the case of Technica. This is in line with Golden-Biddle and Locke's (1993) piece on "how ethnographic texts convince," with a focus on making sense, making a contribution and critically stimulating the reader to rethink assumptions.

In terms of boundary conditions, considering the flattened hierarchies and inclusiveness of exchanges in Technica, this thesis more directly translates to pluralistic settings (Denis et al., 2011) in cases in which many members have a say on what is important for the organization. We have noticed an increased porosity in work recently, in which boundaries between "who is in" and "who is out" are much less clear, and are subject to more negotiation. In particular, besides the increasing number of open source and peer-to-peer organizations (Benkler, 2006), co-ops, early-stage entrepreneurial teams, and volunteer-based organizations also share with Technica less institutionalization of procedures, rules, and roles as well as horizontality and less rigid boundaries. In these types of organizations, we more often find people attracted to a vision (Michaud, 2014) or more oriented towards the passion of building a venture (Cardon et al., 2009) than monetary compensation (in some cases, like in Technica, people do not receive a salary). In these settings, the processes presented in Chapters 4 and 5 are more directly applicable, including the subtleties of some of the dynamics.

The findings at the level of processes can be extended to settings that are not so similar to Technica's as the ones described above. At Technica however, these dynamics are likely more visible, intense, and frequent than in most settings or may be more difficult to capture systematically. For example, the processes of *ideological, practice,* and *boundary* work from Chapter 4 would appear, in particular ways, in corporations (i.e. an organizational form antithetical to Technica). In these settings, people may be

required to embrace a set of values (ideological work), discuss the execution of tasks within certain limits (practice work), and be promoted and fired (boundary work).

In some settings, *ideological work* may appear mostly top-down, and *boundary work* might be rather limited and closely attached to a specific position, thus providing little possibility for *integrative work*. In these cases, organizational identity work to influence people would perhaps require a different kind of gymnastics. For example, the type of agency that can be gained at Technica by an individual when he distances himself from the issue might in another organization lead to loss of any agency, whereby that person would be excluded from the decision-making process in the future.

Broadly speaking, a thread in this thesis has been how organizational identities cannot be formed as an entity and reach stability, but are always in flow. In this section, I will argue that this flow has nothing to do with the rather unique and "chaotic" (to use Joe's term) or "absurd" (to use Weick's 1974 term) form of organizing at Technica. I speculate the intense and frequent discussions about "who we are" and "what we do" would not take place in many firms. The reader may counter this argument to suggest that a series of studies were actually able to see an organizational identity being formed from inception (e.g. Gioia et al., 2010 – see Chapter 1 for full review). If Technica is an exceptional case, the argument would be that an identity would be formed in some organizations and not others. In this section, after anticipating some more potential concerns that may arise, I will argue that identity in any organization is always in formation (this is why a term like "organizational identity work" is helpful).

Some other concerns from the reader may include that Technica's identity could be formed, eventually, after the fieldwork ceased. Another concern that I may anticipate is that many of the participants themselves considered Technica as in the making. In Chapter 3, we see the co-founders referring to Technica with terms such as "process," "exploration" and "emerging." A reader may ask: if I had happened to study another organization, one in which people reach a consensus (without splitting apart), would he or she instead be reading a study with a set of processes on how an organizational identity is formed?[37]

What I argue is that if we consider organizations ontologically as a process, the questions (and therefore the explanations) are different. With a process perspective, an organizational identity cannot be formed as reaching some kind of enduring stable state. If we were to approach the case of State U in Gioia et al. (2010) with a process perspective it would generate very different theories because the research would not be guided by the assumption that an organizational identity would eventually be formed, reach stability, and then appear as an entity that can obtain legitimacy in its field. Similarly, approaching Technica with an entitative ontology, the insights would also be different, and indeed we would be able to pin down an organizational identity. As I explained in the Introduction, I had indeed found a great many common themes in my data including consensus on key issues and would also be able to demonstrate an organizational identity being formed in a sequence of phases, had I adopted an entitative ontology.

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[37] That could happen indeed, but that is not the point. For example, if in another organization I did not have much access to naturally-occurring data, I could indeed be presenting such a study, somewhat more in line with what I had set out in the thesis proposal. The point I am making here is not about the process of discovery in research but of transferability of findings.

When studies like Gioia et al., (2010) on formation shift towards understanding the organization as a social actor seeking legitimacy, the "internal identity" is stabilized because all of the "internal" voices are silenced and that organization is treated as if there was no more activity going on "inside" (like social actor studies where an identity is already formed from the outset) during the field-level legitimation phases these authors present. Cases such as those found in Gioia et al. (2010) in which the identity *in* the organization "pauses" while the identity *of* the organization is being legitimated in its field (because if it changed internally, that which is being legitimated externally would no longer correspond) are rather exceptional.

Although such a entitative and grounded-theory oriented approach was the frame I set out to use in the thesis proposal (Fachin 2013b), as I moved along in the fieldwork, I was no longer concerned with how the identity of an organization is legitimated (section 1.1) or how an organizational identity is formed and/or reaches stability through interactions (section 1.2). In this thesis, I explore how people construct central, distinctive, and enduring features of an organization in everyday organizing in any organization, without assuming that an organizational identity can actually be formed, and I provide different kinds of explanations for the phenomenon. In short, while, as mentioned in the Introduction, having Technica as a case study may have influenced an ontological shift in terms of being my "partner" in the process of discovery (Alvesson & Karreman, 2007; Locke, 2011), any organization that I would approach with the assumptions in this thesis would always appear in flow.

I develop these understandings of flow by employing the perhaps-not-so-creative metaphor of the writing of this thesis, somewhat as if one would author a thesis as one

would author an organization (see Taylor & Van Every, 2011 for the notion of authoring and authority). As one writes a thesis, modifications in different chapters may require modifications in others to make the whole coherent, and then in others, and so on and so forth. Furthermore, reading these modifications may lead to seeing certain things in a new light, requiring thus other adaptations, and triggering yet more sensemaking. At an extreme, this process can go on forever, and a thesis can never be finished. Yet, in the case of a thesis, we have a product that we can pin down. (Note that this product would not be stable per se because it needs to be read to emerge as a social product, and each interpretation is different at each time, but the point is that we still have a product that we can call as such).

This example does not however apply to organizational identity as it does to the world of objects, in which, as in the above case, a book appears as an edited narrative of a series of efforts (the product). But what is the product of organizational identity work? How can we decide on a product of an abstraction, i.e., how do we freeze a multitude of organizing activities at a certain point in time? These are the types of questions that arise from previous studies (see Chapter 1) but were not the ones that I found interesting to pursue here. I treat processes without any product. This is because organizational identity is an abstraction and paradoxes arise when we approach it in the same way we approach the world of objects (see Introduction and Chapter 1). Otherwise, how many performances, agreements, and units of time would it take for social processes to "count" as an organizational identity?

Rather, in this thesis I have analysed how people themselves address these questions in their everyday lives. I present the processes through which they do so and what doing so

does. For example, if participants had consensually decided that they had formed the identity of the organization and had presented it to me in 2 pages, I would (find this surprising and) consider that *they* (not me) had found a product (with an entity-based approach to the world) in a particular moment, perhaps with a particular purpose. I would rather focus on understanding how this consensus happened in organizing and what this consensus would be doing in the organizing process. I would not be concerned with what the product would be.

In this way, the processes presented in this study (Chapters 4 and 5), I believe, are present in any organization, yet with particular emphases and nuances. These findings can however be further explored, developed, and refined with further research, as we will see next.

6.6 Future research

Chapters 4 and 5 have provided a number of suggestions for future research. The main one, considered in section 6.5, concerns studying organizational identity work in different settings. For example, corporate or clearly hierarchical and bureaucratic organizations, in which a particular ideology is not an important driver, or businesses in which discursive exchanges are more limited and more privately held, appear fruitful settings for further exploration (see Chapter 5 for more details).

Other areas of future research presented in Chapters 4 and 5 include considering materiality, with the media (face-to-face vs. email) as an agent in the process as well as a more intimate understanding of "why" (instead of only "how") individuals perform what they perform in some circumstance and not in others. The role of emotions and affect in

organizational identity work appeared in Chapter 5 as a promising area for further exploration.

There are a variety of questions that can be explored considering these settings and themes. For example, how does organizational identity work happen when formal authority is more clearly established? How do people gain voice in an organization and therefore a fighting chance to influence others? (At Technica, having a voice was taken for granted). What is ideological, practice, boundary, and integrative work like in a family business restaurant? How does non-discursive work enable and constrain discursive work? How are values materialized (consciously and non-consciously) in a product? How do different media (email, phone, face-to-face) influence people's agency in the performance of organizational identity work? As we can see, these questions involve organizational identity work coupled with other non-discursive actions.

A less typical concern I put forward is the language of participants. As we have seen, process researchers demonstrate concerns with the language used for process theory (see Hernes, 2014), but that participants too are entrapped in words receives less attention. For example, to my knowledge, there is no gradient of words in English between "I" and "We," creating a dichotomy by default at the level of practice. In everyday life, one cannot easily say that one is both in and out, or place oneself along a continuum. If there were, perhaps our understanding of boundary work would be different.

We know that in certain languages there are many different words for snow, while in others these nuances are not necessary, and in this way the world is experienced

differently. Process too is conceptualized differently. In French, it is common to say "I eat" (*Je mange*) when in English the same circumstance would be termed as "I am eating." Furthermore, "doing identity" and "making identity" use the same verb (faire) in French, yet in English "making" implies a thing being created, while "doing" does not imply a pre-creation status for the thing.

As an example closer to identity work, in Portuguese and Spanish there is a distinction made in the verb "to be," which can be either *ser* or *estar*. When one says "I am *(ser)* happy," one is talking more about an essence, about being a happy person overall in general, across contexts, somewhat like "I am a happy person." When one says "I am *(estar)* happy," one is rather referring to being happy in that particular moment, that particular circumstance or experience – whether or not it is a "*ser* happy" too is not a matter of concern (So it makes perfect sense to say something like: "I am *(ser)* happy but I am *(estar)* not happy.") In this way, it is explicit whether the social actor is talking about a process or state, providing different possibilities for analysis and constructions of identity (e.g. saying *estar* in a situation where *ser* is more typically used can be used to make an ironic point). In short, because in different languages people can construct and experience the world differently, a study in a foreign language where certain differences are significant (e.g. process and entity as explained above) can further different understandings of organizational identity work.

An overarching suggestion for further research is the choice of concepts and methods for process research. What we have seen with the reifying character of organizational identity also applies to terms like culture, creativity, and novelty. As we have seen in Chapter 3, moving away from "in the making" is moving away from a process ontology.

In this thesis, the unpacking of an entitative concept as in the development of organizational identity work (Chapter 1) can be applied to different topics and provide different insights to these very concepts. In contrast to the most adopted definitions of "work" (e.g. institutional work; also, see Phillips & Lawrence, 2012 for a review of "work"), here I have developed work not as a process to alter or maintain an entity (e.g. institutional work to alter or maintain or even disrupt the institution), in which an entity appears subject to, and even becomes an agent in, the process. In short, my suggestion for further research here is to operationalize a definition of "[something] work" that does not have or suggest the related entity (the [something]) in the definition, with a process ontology in order to more closely understand the social interactions constituting these notions.

Finally, I note that this thesis responds to a number of successive calls for process research over the years (Langley; 2007; Garud et al., 2015) including calls for considering identity as flow (Gioia & Patvardhan, 2012; Schultz et al., 2012). I do not consider that this is fully accomplished here or that it can ever be. I see this thesis as potentially stabilizing while destabilizing particular types of academic narratives about identity. This thesis is only a performance, and is, after all, a "frozen" (and assumedly coherent) narrative about a much more complex, uncertain, not to mention confusing, research process. Hopefully, it is able to spark some conversations, within a potentially endless collective work-in-progress.

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Appendix: Researching organizational concepts processually: The case of identity

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Researching Organizational Concepts Processually: The Case of Identity

Abstract

Process researchers investigate phenomena and theorize about them in terms of movement, activity and flow rather than in terms of relationships among variables. The choice of a process perspective has important implications for the conceptualization of key phenomena as well as for appropriate research methods. Moreover, there is not simply a single way to think about what a process perspective means but several different ones, and each of these may require different research methodologies. In this chapter, we consider four different understandings of process and consider their methodological implications drawing on the concept of organizational identity as an example. We show that research design, data requirements and analysis techniques may vary depending on whether process is viewed as evolution, as narrative, as activity, or as "withness." We also describe the dilemma and limitations faced by researchers adopting each of these perspectives, and note that as understandings of process move away from a substantive ontology and closer to a process ontology as expressed by process philosophers, the challenges of empirical qualitative research become deeper, though offering novel and potentially valuable re-conceptualizations of central concepts in organization theory.

Process research implies considering phenomena as in motion, as unfolding over time, as becoming. Process researchers seek to understand and explain the world in terms of interlinked events, activity, temporality and flow (Langley, Smallman, Tsoukas, & Van de Ven, 2013) rather than in terms of variance and relationships among dependent and independent variables. While quantitative analysis may sometimes be mobilized for process research (Van de Ven & Poole, 1995), qualitative data seem much better adapted to this purpose (Langley, 1999). Thus, this chapter will focus in particular on how qualitative designs may be used to research organizational concepts processually.

To do this, we adopt a somewhat unusual angle however. Previous writings have examined the general issues of designing process research (Langley, 2009; Pettigrew, 1990), collecting process-based qualitative data (Dawson, 1997), analyzing it (Jarzabkowski, Lê, & Spee, forthcoming) and theorizing from it (Feldman, 1995; Langley, 1999). The overall terrain already seems well-explored. However, as Langley et al. (2013) noted, process research may be undertaken building on different ontological assumptions. Thus, one can distinguish between process research that adopts a substantive ontology focusing on changes that happens to things which retain their identity as they change, and process research building on an explicitly process ontology in which the world is seen to be composed only of processes (see also Van de Ven & Poole, 2005). Applied to the concept of organization for example, a process ontology would tend to focus on the way in which events, activities and practices come to constitute and reconstitute organization (or organizing) in every moment, rather than focusing on *the* organization as a well-defined object, that might then be subject to change in the form of a discrete displacement (Tsoukas & Chia, 2002). These two

perspectives on organization could have different consequences in terms of appropriate research designs. Our approach to considering methods for process studies in this chapter will therefore be contingent, and focused on how different ontological assumptions about the processes associated with organizational concepts might lead to different kinds of methodologies and research designs.

We shall argue in fact in this chapter that there are a number of different ways of operationalizing the notion of process in empirical research (not just two), and that each has its own methodological requirements. Moreover, in order to illustrate these contingencies, we will focus our analysis on a particular organizational concept that has given rise to an important body of empirical research, and that serves as an exemplar: that of organizational identity.

The notion of organizational identity was originally coined by Albert and Whetten (1985) as referring to "who we are as an organization" and as encompassing those characteristics viewed by members as *central*, *distinctive* and *enduring*. Subsequent scholarship drawing on the notion of organizational identity began to question the last element (its "durability"), and argued that organizational identity can, does and must evolve adaptively over time (Gioia, Schultz, & Corley, 2000; Ravasi & Schultz, 2006). Gioia et al. (2013b) in fact replaced the last characteristic of the Albert and Whetten triad by the label *continuous,* suggesting that organizational identities normally maintain some kind of continuity as they shift, often with labels staying the same but meanings changing over time. Thus, scholars of organizational identity began to see the concept in more processual terms. Authors discussed identity as "flow" (Gioia & Patvardhan, 2012), and as under "construction" (Pratt, 2012; Schultz, Maguire, Langley,

& Tsoukas, 2012). Some scholars began to introduce the notion of "organizational identity work" to describe activities people and organizations engage in to establish or influence understandings of an organizational identity, turning the concept further in the direction of fluidity and process-based thinking.

In fact, we chose the concept of organizational identity because we see it as representative of a range of organizational concepts that are often viewed in non-processual, static or "thing-like" ways (e.g., identity as fixed, something that organizations "have"), but where processual understandings may offer novel and useful insights (e.g., identity as fluid; something that people "do" or "work" on). Other concepts relevant to organizations to which one might apply a similar type of thinking might include strategy, culture, structure, trust, power, leadership, etc., concepts that are quite abstract and intangible, but whose normal usage is in the form of a noun or as an object that can be described and qualified. Yet all these concepts have potential to be considered in processual terms as susceptible to change and transformation over time or as inherently constituted by activity or flow. The chapter aims to explore, using the example of organizational identity, some of the conceptual and methodological adjustments that need to occur when such abstract objects are placed in motion to different degrees and in different ways.

The notion of organizational identity also has another property that renders its analysis particularly interesting: it is one of several concepts (organizational learning is another example) that imply the transposition of a concept originally attached to individuals to the organization as a whole (Gioia et al., 2013b). Thus, not only does the notion of organizational identity raise issues of change and evolution, but also questions about

aggregation and emergence that are themselves processual (How does organizational identity form? How do different individual conceptions of identity coalesce, interact, conflict or coevolve?).

Insert Table 1 here

Table 1: Four conceptions of process thinking applied to organizational identity

	Process as EVOLUTION	Process as NARRATIVE	Process as ACTIVITY	Process as WITHNESS
Focus	How an entity changes or develops over time	How people make sense within narrative accounts	How people negotiate understandings in situated interactions	How understandings are lived forward with research subjects
Research design and data	Longitudinal case studies with data from multiple sources	Texts or interviews incorporating narrative accounts	Naturally-occurring observation of real-time interactions	Dialogic action research or autoethnography
Analysis	- Hierarchical coding into a unified temporal narrative - Temporal bracketing and visual mapping	- Theme analysis - Narrative analysis techniques (Boje, 2001, Czarniawska (2004)	- Deep dive vignettes into interaction strips - Conversation analysis or other discursive methods	- Collective sense-making with research participants - Iterative temporally grounded analysis
Dilemmas and limitations	- Complexity of integrating data across space and time - Monological accounts that under-play divergence	- Need for consistency in narrative approach - Confined to understandings in individual texts (neglects interaction)	- Reaching beyond description - Snippets may generate decontext-ualized understanding (need for context)	- Processes increasing hard to pin down because of ephemeral nature of observation - Fading potential for transferability
Illustrative studies relating to organizational identity	Corley & Gioia (2004); Dutton & Dukerich, (1991); Howard-Grenville et al., (2013); Ravasi & Schultz (2006)	Brown & Humphreys (2006); Chreim (2005); Clegg et al., (2007); Humphreys & Brown, (2002); Navis & Glynn (2011)	Drori et al., (2009); Fachin (2016); Fachin & Langley (2015); Karreman & Alvesson, (2001); Ybema (2010)	Hatch, Schultz & Skov (2016) (*partially*); *Other studies not on OI:* Lorino et al. (2011); Kempster & Stewart (2010)

The chapter will be structured into four main sections corresponding to four different conceptions of process thinking: process as evolution; process as narrative; process as activity; and process as "withness" (for a summary of our analysis, see Table

1). The first three conceptions are quite well-established (Langley & Tsoukas, 2010), and there is existing literature relevant to organizational identity associated with each, although this is more strongly developed for the first two. The fourth conception of process constitutes a more speculative development, inspired in part by Shotter (2006), that stretches the idea of process beyond existing work. We introduce this perspective to stimulate novel thinking about the implications of a strong process ontology for research methodology. For each perspective, we will describe the assumptions behind it, and illustrate the implications of this orientation for research design, data collection, and analysis drawing on the notion of organizational identity as an example. We also identify some dilemmas and limitations of each approach. We conclude with a brief discussion of the overall challenges of moving from more substantive ontologies towards more strongly process based ontologies in conducting empirical research.

Process as Evolution

The first perspective on studying concepts processually focuses on temporally evolving processes, but essentially adopts what we described above as a substantive ontology, seeking to better understand how and why an entity or organizational level construct might change or develop over time. Research will thus be longitudinal and focus on a period of time long enough for an observable shift to have occurred in the specific object of study.

In the case of organizational identity, referring to Albert and Whetten's (1985) definition, the researcher will therefore aim to examine periods of significant change or development in what is perceived to be central and distinctive about an organization, and to understand the events and processes underlying this transformation. A large

body of empirical work on organizational identity has in fact focused in one way or another on processes of change and emergence seen from this perspective (Clark, Gioia, Ketchen, & Thomas, 2010; Corley & Gioia, 2004; Dutton & Dukerich, 1991; Gioia, Price, Hamilton, & Thomas, 2010; Hatch, Schultz, & Skov, 2015; Howard-Grenville, Metzger, & Meyer, 2013; Ravasi & Schultz, 2006; Rindova, Dalpiaz, & Ravasi, 2011).

Research design, data collection and analysis

Studies that focus on what we label *process as evolution* tend to adopt case study designs that rely on qualitative and longitudinal data, drawing on multiple sources to capture all the events that might be relevant to understanding the changes considered in one or more cases. This approach to studying organizational concepts processually is the most frequent and well-recognized manifestation of process research in the methodological literature (Langley, 1999, 2009; Pettigrew, 1990). All of the studies of organizational identity change mentioned above fit this pattern, and were carried out over a sufficient time period for recognizable shifts to occur in organization members' constructions of organizational identity. Although there is no logical reason why an evolutionary perspective on process might not involve more than one case – and indeed, many studies in areas other than organizational identity have done so (Denis, Lamothe, & Langley, 2001; Jarzabkowski, 2008), all of the organizational identity-related studies mentioned above are also based on a single case study organization. This may in part be due to the richness and density of data needed to construct understanding of the emergence or evolution of organizational identity in any given case over time, as well as the complexities of effectively representing multiple case histories in depth within the confines of a journal article.

Data analysis in this kind of study essentially involves piecing together from multiple sources a unified temporal narrative that captures the events and processes studied, digging beneath them to identify more general theoretical "mechanisms" that underlie this evolution. Studies of the emergence and evolution of organizational identity have in fact often used what has come to be known as the Gioia method (Gioia, Corley, & Hamilton, 2013a) for operationalizing grounded theory-building. For example, in their study of identity ambiguity during a spin-off, Corley and Gioia's (2004) 24 month study comprised 80 interviews, different types of documentation, and non-participant observation. Through their analysis, the authors lead us through the hierarchical process of coding data according to this version of the grounded theory method. We see how verbatim quotes from different participants (e.g., *"There is ambiguity as well in the sense of what is really going on?"*) are successively grouped into first order codes (e.g., *"Who are we going to be?"*) and then into eight broader second-order themes (e.g., *"Temporal identity discrepancies"*) to be finally pulled together into three aggregate dimensions. Temporal linkages between the eight second order codes grouped into aggregate dimensions are then identified constituting a theoretical model. The method thus enables the movement from a huge quantity of temporally embedded raw data to a very parsimonious representation of the process of evolution from a pre-spinoff to a post-spinoff identity (see Clark et al., 2010; Gioia et al., 2013b; Gioia et al., 2010 for other examples of the use of this analytical method in the study of organizational identity).

Other analytical devices that are of particular value in studying "process as evolution" are "temporal bracketing" and "visual mapping" techniques (Langley, 1999). Temporal

bracketing involves decomposing timelines into segments that are used for comparative analysis. This can be useful to show how the process dynamics of change are replicated or repeated in different forms over time. For example, Ravasi and Schultz (2006) showed how the interaction between internal cultural factors and external images contributed to responses to identity threat during two separate iterations of identity change at Bang and Olufsen. Visual mapping involves "drawing" the data, i.e., representing key elements of evolution over time (events and their interactions) schematically. Howard-Grenville et al. (2013) used temporal bracketing to analyze multiple iterations of attempts at identity resurrection in Eugene, Oregon, revealing the repeated interactive dynamics of resource mobilization and authentication. They used visual mapping to represent these iterative processes over time, both in abstract and in empirical forms. Figure 1 is taken from their paper and illustrates three empirical iterations of their final conceptual model, embedded in a visual map.

Figure 1: Example of Visual Mapping and Temporal Bracketing (Howard-Grenville et al., 2013)

Identity Decline, Threat, and Resurrection[a]

Stocks of Tangible Resources
- Financial resources
- Human resources
- Physical resources

- Financial resources
- Human resources
- Physical resources

- Financial resources
- Human resources
- Physical resources

Dellinger leverages Track Town identity forged during '72 Olympic Trials to draw athletes and other resources

Authentic but uninspiring experiences reduce inflow of athletes and financial support

Smith recruits athletes for sprints and field events, not distance events

Inauthentic experiences curtail inflow of financial support

Lananna spearheads winning bid to host 2008 Olympic Trials; recruits new athletic talent to UO and city

Members' Lived Experiences

Ongoing Experiences | Orchestrate Experiences (Showcase athletic performances; Elicit emotional response) | Authentication | Ongoing Experiences | Orchestrate Experiences | Authentication | Ongoing Experiences | Orchestrate Experiences (Showcase athletic performances; Elicit emotional response) | Authentication

Custodians tap Track Town identity to enroll new fans and model behavior at '76 and '80 Trials

Dwindling number and intensity of authentic experiences slows regeneration of intangible resources

Custodians angered and alienated by Smith's affront to symbols and relationships

Inauthentic experiences halt regeneration of memories and stories and sever connections between athletes and residents

Custodians rally, revitalize, and recruit fans

Pools of Intangible Resources
- Symbols
- Relational systems

- Symbols
- Relational systems

1973 | Dellinger Era: Identity Decline | 1998 | Smith Era: Identity Threat | 2005 | Lananna Era: Identity Resurrection | 2011

[a] The sizes of boxes, circles, and fonts reflect the quantities of tangible resources; orchestrated experiences' success in showcasing athletic performances and eliciting emotional responses, and the extent of authentication generated. The width of arrows in the figure depicts flows of resources, and the thick horizontal line near the bottom of the figure depicts the changing depth of pools of intangible resources.

Dilemmas and limitations

Studies that consider "process as evolution," especially at the organizational level, encounter the complexities of capturing, aggregating and interpreting organizational events that may evolve over long periods of time, and that may be spread out at different locations. For example, when attempting to understand "organizational identity," the perspectives of multiple individuals (and not just top management) would seem to be potentially relevant. Balogun, Huff and Johnson (2003) suggested strategies such as combining informant diaries and focus groups with other more traditional kinds of data collection in order to capture processes happening in many places at once, avoiding the necessity for the researcher to be present everywhere. Methods such as video recording might also enable capturing processes simultaneously.

However, the challenge then becomes one of analysis. Process data of this kind are "big" and messy (Langley, 1999). As we showed, in practice, most authors who have drawn on

these kinds of data (at least to analyse organizational identity evolution) have generally proceeded through a form of data reduction in which elements are compared and aggregated into abstract overarching categories. In this process, identity related phenomena have generally been treated as based on *agreements* among members, discarding divergences or summarizing them in aggregate abstract concepts such as "tensions." Moreover the temporality within the data has often been discretized into "brackets" or periods. In other words, despite the richness, complexity and messiness of the original data, "process as evolution" studies often appear to converge on unified process stories that show movement of a reified entity (the organization, organizational identity or other focal concept) between well-defined states. This is at the same time their strength and their weaknesses. They generate parsimonious process models of how and why key concepts evolve over time, and yet the potential fragility of the underlying concepts and the possibility for fragmentation of perspectives between people over time is underplayed in favor of the monological theoretical account that purports to fully capture and explain the essence of "what happened" (Buchanan & Dawson, 2007). This leads us to another form of process analysis in which the focus is not on "how and why things evolve," but on how participants themselves order events and storylines.

Process as Narrative

The second perspective we discuss in this paper focuses on the reconstruction of time and process through language, an approach that we label *process as narrative*. Studies in this genre seek to understand how people make sense of and reconstruct their experiences from a particular standpoint in time. Through narratives, people articulate events and make them meaningful. This involves a storyline or plot with beginning,

middle, and end, or a movement from past to present to future woven together in a meaningful sequence (Bruner, 1991; Polkinghorne, 1988). In other words, from this ontological perspective, the "process" examined is not the substantive temporal evolution of entities in the real world, but a narrative temporality constructed and displayed within the accounts of respondents or in other textual materials. A particularity of this form of analysis is that: *"It permits consideration of the different possible meanings of organizational action"* (Rhodes & Brown, 2005: 177), and indeed it aims to capture and understand the diversity of such meanings to enable theorizing. Process research that takes a narrative stance is thus likely to draw attention to multiplicity and fragmentation rather than integration as we saw with the previous perspective.

Narrative perspectives on process appear to be particularly well adapted to studies of organizational identity and there are multiple examples of this in the literature. In contrast to *process as evolution,* the focus is on how time (past, present, and future) and the continuity of the organization is reconstructed through language by participants rather than by the researcher. Because language is assumed to *make* reality, organizational identity from this perspective is not assumed to exist "outside" members' narratives. In these studies, identity both *in* organizations (Brown & Humphreys, 2006; Humphreys & Brown, 2002) and *of* organizations (Chreim, 2005; Clegg, Rhodes, & Kornberger, 2007) has been the focus of attention.

Research design, data collection and analysis

Materials for the study of process as narrative can range from written texts, sometimes in the public domain such as annual reports or media texts, which serve as sources to

understand the discursive projections of organizations from which narratives can be derived (Chreim, 2005; Martens, Jennings, & Jennings, 2007; Sillince & Brown, 2009). Alternatively, they often include in-depth interviews with organization members in which narratives are solicited in interaction with the researcher (Brown & Humphreys, 2006; Humphreys & Brown, 2002; Mantere, 2005, 2008; Vaara & Tienari, 2011). In the previously described perspective (*process as evolution*), it seemed important to obtain a wide variety of sources of data in order to achieve triangulation (i.e., validation of key happenings and understandings through confirmation from various sources), and it seemed important to undertake longitudinal analysis over long periods to be able to detect changes in the focal phenomenon. Neither of these requirements (source completeness and long term observation) are as strong when a perspective on *process as narrative* is taken. Source completeness is less important because there is an acceptance that a narrative is just one viewpoint and that this has interest in itself. And long term observation is less necessary because the temporality of interest lies as much or more within the interpretations and stories of participants rather than in the event sequences themselves. Nevertheless, narrative researchers may often wish to compare the stories of multiple respondents to identify their nuances and distinctions (Brown & Humphreys, 2006; Brown, Humphreys, & Gurney, 2005; Humphreys & Brown, 2002), or alternatively compare narratives from the same source at different points in time (Anteby & Molnár, 2012; Chreim, 2005).

For example, Chreim's (2005) study of identity narratives in a bank relied exclusively on the firm's messages to shareholders. There was no implication here that the narratives derived from these sources captured all perspectives on organizational identity, but

rather that they simply represented a key top management perspective worthy of analysis. However, Chreim (2005) did compare identity constructions over time. She studied the bank's narratives over 20 years and was able to show how in these texts, top managers mobilized the history and future aspirations of the bank to project organizational identity in different ways over time, yet using a single label ("First Bank") that was interpreted initially to mean the "oldest" bank and in later years as "most innovative."

In contrast, Brown and Humphreys' (2006: 231) study of the discursive exploration of space focuses on identifying *"plurivocal native interpretations of place and identity in ways that promote the reading of polysemy back into case research"* (i.e., focusing on multiple narrative constructions of organizational identity rather than drawing on a single "official" source). Conducting 75 semi-structured interviews among members of a recently merged university, the authors trace different narrative understandings of organizational identity for three groups of workers and contrast them. The authors highlight the instability of identity constructions and how individuals with different values and stories draw on the physical workplace itself to provide contrasting narratives of organizational identity. This research as well as other work by Brown and colleagues (Brown & Humphreys, 2002; Brown et al., 2005; Humphreys & Brown, 2002) reveals the fragility and fragmentation of organizational identity constructions, suggesting that research that assumes unified perspectives may be missing important dynamics that underlie assumptions of consensus.

In terms of analysis techniques, the studies described above have mainly employed variants of theme analysis, laying claim to a hermeneutic approach (Heracleous &

Barrett, 2001) that involves searching for commonalities underlying the different narratives examined, and illustrating the meanings that emerge from them. This seems to be common among most of those who adopt this perspective. Nevertheless, a variety of techniques more closely associated with narrative as story-telling could also be mobilized to examine such materials. For example, Greimas' actantial schema (Greimas, 1987) that defines story in terms of a quest and identifies heroes, villains, helpers and bystanders could be used to code texts in such a way as to better understand organizational identities and the narrative logic underlying varying positions on issues (Demers, Giroux, & Chreim, 2003; Søderberg, 2006). Other analytical schemes for considering narrative are suggested by Boje (2001) and Czarniawska (2004).

Dilemmas and limitations

A perspective on process as narrative takes seriously the idea that temporality is continually reconstructed within the attempts by human beings to make sense of their world. The processes that are emphasized here lie first, within individual narratives and secondarily across them, either between people or over time. These studies thus offer a different and valuable way of reconsidering process from that we have described earlier.

Note however that there are various approaches to considering narrative that gives rise to a certain amount of confusion associated with the mobilization of this perspective, and this is one of the dilemmas in applying it. For example, Rankatari and Vaara (2016) identify four different perspectives on narrative: the first implies the use of narrative for "representation" (referring to the narratives emerging from other kinds of research), the second implying a social constructivist view in which meaning making is emphasized, the third referring to a postmodern view in which dominant narratives fragment and are

deconstructed (as in the work of Brown and colleagues described above), and the last referring to a perspective in which narratives may acquire agential properties, coming to construct the activities they describe. We see the last for example in what some scholars have called "identity regulation" (Alvesson & Willmott, 2002) in which organizations attempt to develop future organizational identity or strategic narratives (Barry & Elmes, 1997) that become self-fulfilling prophecies by offering desirable subject positions to individuals, who then take these up (at least to some degree), conforming to the proposed narrative. All these perspectives, and especially the last three, offer intriguing ways to consider process as narrative. And yet, they are rather different and may require careful positioning to ensure consistency of approach.

A second limitation of the narrative perspective on process is that it often seems bounded and confined by the particular texts (documents or interviews) that it analyses. It does not explain, for instance, how different understandings of the world might interact and influence each other over time. For example, the work by Brown and Humphreys (2006) described above is based on interviews and enables the description of different constructions of events in interaction with the researcher. We see multiple understandings of events and resistance to managerial narratives. However, this perspective stops short of showing how different constructions of organizational identity might intervene in live discussions among the various participants. The next perspective on process offers closer attention to this with its analysis of change and evolution in the moment.

Process as Activity

This perspective focuses on the construction of the world in everyday activity and interaction. This perspective is closer to adopting an ontologically processual view, capturing and building on real-time practices. Studies in this vein seek to derive insights from a set of, often mundane interactions occurring in meetings or in or on other occasions where activity and interaction take place. Recently published examples of studies that adopt this perspective include Spee and Jarzabkowski's (2011) study of interactions surrounding the creation of a strategic plan in successive meetings, and Thomas, Sargent and Hardy's (2011) study of dialogic interactions between managers and employees around a new strategic orientation. Studies such as these focus on micro-level interactions and the way in which specific discursive interventions may build on one another, and construct shared or divergent meanings. While studies treating *process as evolution* step back from the everyday to examine long term change, and while studies of *process as narrative* look at individual constructions of process, studies of *process as activity* move towards capturing becoming in the moment and are therefore closer to conforming to a process metaphysics or ontology than the previous two (Langley et al., 2013).

In the field of organizational identity, relatively few authors have taken this perspective. However there are some exceptions (Coupland & Brown, 2004; Drori, Honig, & Sheaffer, 2009; Fachin & Langley, 2015; Ybema, 2010). Moreover, there are a number of other studies that without focusing on *organizational* identity per se, examine individual or collective identity-related activity in organizational contexts where social interactions among coworkers imply partly shared identity constructions and negotiations (Karreman & Alvesson, 2001; McInnes & Corlett, 2012; Wieland, 2010).

Indeed, critiquing the narrative perspective, Karreman and Alvesson (2001) describe narratives as "fixed texts or frozen states of subjectivity" that are incapable of grasping identity as it happens during the organizing process. Thus, rather than referring to the notion of "organizational identity" as a thing which emerges over time (process as evolution) or is constructed in narrative (process as narrative), it seems more relevant here to speak of "organizational identity work" as *activities accomplished by individuals and groups to form, repair, maintain, strengthen or in other ways influence understandings of the central, distinctive and enduring characteristics of a specific organization*, a definition constructed by building on Sveningsson and Alvesson's (2003: 1165) notion of individual identity work. This definition accounts for the fragile and temporary accomplishment of identity in a collective. With this, we also see that the lines between individual and organizational identity work in an organizational context are likely to become blurred, since the very same activities of individuals aimed at influencing organizational identity construction are likely to simultaneously draw on or promote discursive constructions that fit the individual's own internal sense of coherence and distinctiveness. We now consider the implications of this approach for research design, data collection and analysis as well as the particular dilemmas this raises.

Research design, data collection and analysis

While *process as evolution* builds on long term longitudinal studies of multiple actors, and *process as narrative* focuses on specific individual or collective sources, a perspective that considers *process as activity* aims to get close to specific instances of interaction that reveal the phenomenon studied "in the making." Thus such an approach

tends to involve single case studies and fine-grained data collection opportunities involving naturally occurring interaction. This may typically mean observation of face-to-face meetings (Karreman & Alvesson, 2001; McInnes & Corlett, 2012), shadowing of everyday office contacts (Drori et al., 2009; Wieland, 2010), the collection of emails (Fachin & Langley, 2015) or web communications (Coupland & Brown, 2004). In order to acquire such data, ethnographic approaches seem most appropriate. In studies of process as activity, interviews may serve as complementary sources to better understand what is occurring in interaction. However, direct observation appears to be a critical and necessary source.

In terms of analysis, researchers who adopt a "process as activity" perspective are likely to collect a much broader range of data than they can actually use in any specific research article. Because interactions need to be examined in fine-grained detail, analysis will likely involve "deep dives" into the data to identify critical incidents or interactions that are particularly revealing of the processes examined. Rouleau (2005: 1419) offers an analogy with the natural scientist's "microscope [that] helps understanding of the whole through its tiny parts" to describe how the detailed investigation of specific interactions can enable a cumulative and layered understanding of the whole. Typical analysis techniques may range from formal conversation analysis (Samra-Fredericks, 2003) to less normalized forms of interaction analysis and coding.

An interesting example of this approach comes from the first author's doctoral thesis (Fachin, 2016). Using the concept of "organizational identity work," this study in a peer-to-peer network for open innovation explores individuals' utterances concerning that which is central, distinctive, and enduring about the organization in everyday

conversations (see also Fachin & Langley, 2015). While in interviews with the researcher, participants provided certain constructions about the organization, in everyday interactions their performances also shaped the framework of interpretation of other participants. The focus on naturally-occurring and interactive data in this study, including collective emails, meetings, and observations, enabled the understanding of how discursive spaces around organizational identity concerns are negotiated in interaction. For example, participants were able to gain agency by selectively granting undesired constructions of "who we are" provided by others, and subsequently benefiting from their reciprocity in the resolution of defining issues. Fachin (2016) further found empirically that when this exchange of reciprocities broke down, i.e., when participants insisted on pursuing their own desired constructions of the organization, the organization split. The study illustrates the value of studying situated interactions over long periods of time to detect shifts in interaction patterns.

Studies of conversations during meetings have also been used to understand how *individuals* position their own and others' personal and social identities through identity work in the moment (McInnes & Corlett, 2012). There is room for further development of a "process as activity" perspective on both organizational and individual identities and the way in which organizational and individual identity work are in fact inextricably bound together, an insight that is easily missed using other perspectives.

These kinds of analyses are only made possible because the interactions between participants are directly observed. These studies thus capture the co-construction and negotiation of identity directly. In this way, besides considering the performance of organizational identity, they are able to highlight how shared understandings might

emerge in the interaction of participants, or on the contrary, how organizational identity constructions might be continually contested or pasted over in interaction (Fachin, 2016; Fachin & Langley, 2015).

Dilemmas and limitations

The *process as activity* perspective brings us closer to a true process ontology by focusing on activity. Thus drawing on this approach, rather than seeing how organizational identity as a fixed entity changes over time, we see organizational identity in the making, never actually coalescing in any final form but as continually accomplished in every successive interaction sequence. This approach is not however without its own dilemmas and limitations. For example, because of its proximity to everyday interaction, studies that adopt this perspective may have difficulty in reaching beyond their description. The interactions examined can easily become their own explanation. The interpretation of events within a micro-incident needs to build on theoretical concepts that lie outside it, so that patterns can be identified.

Another limitation of the kind of analysis encouraged by this perspective is that interactions are ephemeral by their nature. Yet, they have longer term origins and consequences than might initially be perceived and this needs to be captured in the research despite the focus on activity and "becoming." Thus, the context surrounding the particular events (who are the particular people in the meeting, what is the history of their prior interaction, what does each really hope to achieve) needs ideally to be understood and included in the analysis (De Cock & Sharp, 2007). And yet, this context is not necessarily directly visible within the interactions as they are observed. Thus, an analysis of processes occurring "in the moment" may often require drawing on temporal

and spatial elements beyond that specific moment in order to make sense of it (Denis, Langley, & Rouleau, 2010). Indeed, studies that focus on interactional events as the central focus often need to draw as well on ethnographic contextual data, interviews and other sources to stabilize and enrich interpretations that would otherwise be focused on fleeting events detached from their surroundings (Samra-Fredericks, 2003). Bringing together these elements to derive an insightful understanding of happenings in the moment can be a significant challenge. Taking the notion of process to its logical conclusion, we suggest however that there is an even more challenging way to consider what happens when the world is set in motion.

Process as Withness

A final perspective that we elaborate on here, somewhat speculatively since it has rarely been implemented in empirical research, is inspired by Shotter's (2006) notion of "withness thinking," the idea that a true process perspective places the researcher him or herself in flux along with and in direct relation to the researched. In contrast to the way in which most research is conducted by looking back on and making sense of past events once they have congealed into facts and certainties, withness thinking recognizes that human experience necessarily involves "living forward" (Weick, 1999) and that attempting to capture experience in synchrony with research subjects can offer a deeper and richer understanding of the world as a process of becoming, replete with unrealized and ever-shifting potentialities. As Weick (1999: 135) notes:

> "Unsettled, emergent, contingent living forward contrasts sharply with our backward oriented theoretical propositions that depict that living as settled, causally connected, and coherent after the fact. The compact causal structures

that epitomize our theories are artifacts of retrospect rather than narratives of prospect."

Similarly, the editors of the *Oxford Handbook of Process Philosophy and Organization Studies* (Helin, Hernes, Hjorth, & Holt, 2014) identify three elements composing an approach to engaging in process research that fully conforms to process philosophy as they see it: *"belonging to and becoming with the world"* (close to Shotter's notion of "withness" and Weick's reference to "living forward"), *"particularity"* (focusing on specific examples to understand how they emerge and how they alter their context), and *"performativity"* (a recognition that research itself contributes to and potentially changes the becoming of the world).

Actually doing research that does justice to these process philosophical aspirations is however far from a simple matter, and indeed few scholars have attempted it, or at least published their efforts in academic journals. Below we describe two different angles for designing research that might approach a form of "withness" thinking.

Research design, data collection and analysis

A first way of operationalizing "withness" thinking in empirical research is suggested by Shotter himself (Shotter, 2006, 2009). He argues that withness can only be achieved through dialogic interaction between the researcher and the researched, in which conversations are used to question and explore the potentialities of the moment in order to change understandings of the possible and thus of future actions (Shotter, 2006). He thus promotes what he calls "situated dialogic action research" (Shotter, 2009) whose purpose is to create socially useful knowledge specific to the practices of individuals

whose situations are being studied. The researcher is not therefore involved in formalizing knowledge into abstract concepts and relations, but rather in enabling the emergence of novel sensemaking that opens up possibilities. Such research is resolutely forward-looking and particularistic, rather far from the notions of research design and theorizing represented in the three previous conceptions of process research.

While Shotter's (2006, 2009) own writings are resolutely philosophical and concrete examples of empirical studies are limited to snippets of interaction, a more complete exposition of an empirical approach that appears to conform to his philosophy is described by Lorino, Tricard and Clot (2011) who draw on Shotter as well as Bakhtinian (Bakhtin, 1981) notions of dialogue, and pragmatist notions of inquiry (Dewey, 1980 [1938]; Peirce, 1958 [1931]) to propose and illustrate what they call a "dialogical mediated inquiry" method. The method (illustrated case on an issue of employee safety) involves an initial step of researcher observation of practitioner situations generating mediating artifacts (descriptions, narratives, filmed incidents) that are then successively considered in dialogue first with those directly involved, then in a somewhat wider group (in which the filmed dialogues of previous interactions are displayed and discussed), and finally to a much broader dialogical community. The inquiry dialogues and material artifacts give rise to collective sensemaking and the generation of alternate ways of approaching the practical issues raised. "Withness thinking" translates here into a form of collaborative action research.

The study described above does not deal with organizational identity issues. However, some ethnographic studies do come close to this. For example, in the study by Hatch, Schultz and Skov (2015) on organizational identity development at Carlsberg, two

researchers (Hatch and Schultz) joined forces with a manager involved directly in developing and communicating organizational identity projections for other members of the firm (Skov). The researchers describe themselves as adopting an "engaged scholarship" (Van de Ven, 2007) approach. This manifested itself in an emphasis on dialogue with participants as events and the inquiry evolved (*"After each field visit we wrote and shared first drafts of our discoveries with Skov and other key informants, the reports ranging from 3 to 12 pages. In some cases this led to further discussions with the managers of one or another of the subsidiaries"* (Hatch et al., 2015: 64)). This resulted ultimately in a much more collaborative form of inquiry than had been initially envisaged, reflecting some of the features of "withness" thinking:

> *"The reactions of Group executives, Skov especially, helped us recognize the need to balance our academic interests in studying the OI/OC [organizational identity/ organizational culture] relationship with their need to manage these phenomena and led us to new insights concerning how the empirical study of theoretically defined phenomena can be better related to practice."*

Yet despite the adoption of a collaborative approach (which well may have provided distinctive benefits to the firm and its members), Hatch et al.'s (2015) key contribution is nevertheless expressed as a conceptual model derived from a grounded theory coding approach that conforms closely to what one would expect from a "process as evolution" perspective. While "withness" was no doubt inherent to the creation of the data, it is not deeply reflected in the research product itself, based as it is on a retrospective reconstruction of events and their inter-relationship by the research team once data collection was complete.

An alternative research design, data collection and analysis approach that would recognize that researchers are in flux (i.e., living forward) along with the research sites they are observing would involve better capturing researchers' ongoing sensemaking as it evolves along with changes in the research site. This suggests stronger use of auto-ethnography as a research method – i.e., the detailed recording and explicit representation in published research outputs of the researchers' interpretations in time as they evolve, focusing both on the events observed as well as the researcher him or herself as the observer of these events.

Such a method would recognize that what a researcher understands of a phenomenon such as "organizational identity" at a particular point in time is embedded in the moment at which that understanding occurs and is connected to that researcher's own identity and location in time and space. At a later point in time, not only will events have moved on, but the researcher's own life and personal identity may also have shifted, changing the way in he or she is likely to make sense of even the same events. As Cunliffe and Karunanayake (2013) point out, researchers speak for and construct identities, shaping the context, selecting some voices and silencing others. As time moves on, the researcher him or herself changes as he or she makes sense of the phenomenon. Throughout the process of analysis, the researcher is able to see "new" things while being blinded by others. The phenomenon thus appears in flux through interrelated process of discovery of the field *and* self-discovery (Locke, 2011).

In this case, the main source of data for capturing not only organizational events in flux but also the flux of a researcher's sensemaking would be the researcher's own auto-ethnographic journal, and the analysis of this conducted by himself or by others at

different points in time. Such work is rare, in particular in mainstream journals and is likely to be somewhat experimental because of its foreignness to mainstream thinking about legitimate forms of theorizing. However, one example (related however more to individual rather than organizational identity) is Kempster and Stewart's (2010) autoethnographic study on "becoming a chief operating officer." Here, the second author took detailed diary notes of his first three months in a senior leadership position. While the research data are constituted as a reflexive construction of an experience, the first author participated in the analysis of the second author's narrative enabling the unveiling of elements taken for granted by the first author during the process itself. Such an approach could be adapted to the study of any phenomenon (including organizational identity) by offering insight from time-stamped diary entries and analyses into how researcher analyses evolved over time as the researcher moved from novice to insider within the same study.

In undertaking such research, there may be much to be said for generating records that are as close as possible to natural observations rather than being tied to time-bound and indirect interpretations. For example, fieldnotes taken during a meeting are one way to capture events. However, a video recording of that same meeting is more malleable and potentially subject to novel and richer interpretations when revisited later. The same phenomenon is seen differently because the "eyes" of the researcher have moved on.

Dilemmas and limitations

A perspective on process as "withness" brings process research much closer to a strong process ontology, and has been explicitly favored by writers strongly committed to the application of the precepts and assumptions of process philosophy to organization

studies (Helin et al., 2014; Lorino et al., 2011; Shotter, 2006, 2009). And yet, it is a perspective that rather deeply challenges our understanding of the nature and purpose of academic research on organizations, much more so indeed than the three previous perspectives. By taking process thinking to its logical conclusion, and by placing the researcher him or herself in flux along with the situations he or she is studying, the research enterprise as we know it appears suddenly destabilized and detached from its moorings. While "withness" thinking clearly has value for practice, the goal of generating conceptual understandings of phenomena that can be at least partially transferred to multiple situations appears to fade when adopting these ideas to the full. Weick (1999: 134) sums up the potential of this kind of perspective on process in terms of its potential to close the "gap between living forward with flawed foresight and understanding backward with equally flawed but mischievously seductive hindsight." The trick it seems to us is to bring both closer together without losing either. As our examples suggest, this is easier (and more often) said than done.

Discussion and Conclusion

In this chapter, we examined four types of ways of conducting qualitative process research based on different assumptions about the nature of process: process as evolution, process as narrative, process as activity, and process as witness. We have highlighted how studies within these groups consider phenomena in motion with different lenses, assumptions, and methods.

Indeed, contrary to what might have been thought, there is more than one way to operationalize the notion of process in qualitative research. The *process as evolution* perspective is the approach that is most commonly adopted and well accepted in

academic journals in the field. It involves treating concepts as entities and examining their evolution over (usually long periods of) time under the assumption that this evolution can be represented and explained holistically using a limited number of related concepts. The *process as narrative* perspective moves from considering temporal evolution in the "real" world to considering its representation and understanding in the narratives generated by organization members. Such a perspective recognizes the multiplicity of meanings present in specific situations. The *process as activity* perspective, in contrast, focuses on becoming "in the moment" as interactions among people generate and constitute observable transformations. Concepts or entities (such as organizational identity) are viewed here in terms of activities (organizational identity work) as people interact to influence their becoming. Finally, the *process as withness* perspective that we introduced here places the researcher in motion along with the research sites they are studying, refocusing the research enterprise in rather fundamental ways.

We note that as we move from one perspective to another, the data required are still qualitative but may be somewhat different. Viewing process as evolution requires longitudinal qualitative data preferably from multiple sources over a period long enough to observe clear changes in concepts studied. Viewing process as narrative in contrast may rely on synchronous data collected in interviews and texts. All that is required is that these sources embed respondents' reconstructed temporality. Viewing process as activity requires access to naturally occurring interactions and activities so that the micro-level shifts as interactions proceed can be observed in a fine-grained manner. Long term data collection may be valuable but not absolutely essential in such cases.

Finally, methods such as dialogic action research or auto-ethnographical diaries are sources more compatible with viewing process as withness.

Finally, as we move through the different approaches to process research, the nature of the research output changes also, as do the challenges associated with generating these outputs. As Langley (1999) commented, process data are always messy and making sense of them is never simple. Yet, there is now sufficient published work adopting the "process as evolution" view that the challenge with this no longer seems insurmountable. Recently, the process as narrative and process as activity views have also been developing adherents and some strong and insightful exemplars have appeared including some of those cited in this chapter. On the other hand, the closer we come to approaching a strong process ontology as put forward by process philosophers (and as represented by the *process as withness* view), the more difficult it seems to become to offer contributions that effectively capture the world in flight, yet in a way that is understandable, parsimonious and potentially transferable. The philosophers of process seem here to have reached somewhat beyond the understandings and capabilities of the pragmatic empiricists among us (speaking for ourselves). A perspective that considers *process as withness* places the researcher in motion along with the research sites they are studying, refocusing the research enterprise in rather fundamental ways. Herein, perhaps, lies the next frontier.

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