

Hybridization as an organizational response to widespread institutional logics

A case study of a commercial and open source software community

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Abstract

This paper builds on a long tradition in the Scandinavian countries for using empirical case studies to analyse the way in which organizations respond to different widespread institutional logics. The paper proposes five organizational responses: *resistance* to new logics; *replacement* of an old logic for a new one; *co-existence* of old and new logics; *competition* between old and new logics; and finally, *hybridization* of old and new logics.

Following a historical account of how a commercial and open source community has developed, the paper goes on to analyse why this organization responds in a hybridizing way to two widespread institutional logics within software development (i.e. the institutional logic of technology and the institutional logic of capitalism). In the case, the analysis identifies the combination of four elements as influential on the hybridizing process: 1) external inspiration – no external pressures or shocks; 2) organizational members as institutional audience; 3) frames following the logic of appropriateness – not only the logic of consequentiality; and 4) organizational institutional leadership defining hybrid frames. By way of conclusion, the paper discusses the need to transgress macro/structure and micro/actor dimensions, and suggests insights to be gained by combining institutional theory with the Chicago School's interactionist's approach and performance theory.

1. Introduction

There is a long tradition in the Scandinavian countries for using empirical case studies to analyse the way in which organizations respond to different widespread institutional logics, e.g. how local processes in organizations are related to widespread phenomenon such as institutional logics on organizational field as well as other societal levels. This tradition is best reflected in the studies of how organizations respond to different widespread institutional logics, how they interpret them, and how these interpretations in turn affect everyday organizational practice. (Borum & Westenholtz 1995; Boxenbaum 2006; Boxenbaum & Strandgaard 2009; Brunsson 1989; Czarniawska & Sevon 1996; Holm 1995; Rovik 1998; Sahlin & Wedlin; Westenholtz 2004; 2006). These matters have also attracted interest outside Scandinavia. (Cooper et.al. 1996; Friedland & Alford 1991; Greenwood & Hinings 1996; Kraatz & Block 2008; Oliver 1991; Reay & Hinings 2009; Thornton & Ocasio 2008; Weber & Glynn 2006; Zilber 2009). Although relatively few, these theoretical and empirical analyses have shown that organizations react very differently to situations where several institutional logics are at work. Some resist adaptation to a new institutional logic, where others choose to replace one institutional logic for another. In other organizations, several logics coexist peacefully – or they may initially compete but reach a temporary truce. Finally, some organizations experience a hybridization of different institutional logics.

The research question sustaining this enquiry was developed by assimilating the theoretical body of research that assumes an interpretative perspective on organizational responses to widespread institutional logics with an empirical organizational case, i.e. a commercial open source software community.

The organizational case – known as Typo3 – was 'born' in 2000 as an open source software community embedded in a mature organizational field (DMaggio & Powell 1983). At the time, this field was infused with a dominant institutional logic of technology (Friedland & Alford 1991). Voluntary software developers and end-users looked upon the software as a mere technical device and openly shared their knowledge with other members of the community. In the following five to six years, material and symbolic practices changed within the community. The Typo3 community blended material and symbolic elements from the institutional logic of technology and the institutional logic of capitalism, thus developing into a hybrid phenomenon – a commercial *and* open source software community.

Interweaving theory with the specific empirical case has led to the following research question:

How do participants in the Typo3 community interpret and react to different widespread institutional logics in a hybridizing way?

Theoretically, this question is highly interesting. It calls upon research to explain the way in which participants in the Typo3 community perceive and interpret different institutional logics and why they allowed their everyday practice to become hybridized. Why did they not resist change? Why did they not change their daily practice into a multi-institutional phenomenon, or replaced the old with a new institutional logic?

In the following section, the concept 'institutional logics' will be unravelled, followed by a description of how organizations have interpreted and responded to different institutional logics in their environment. In the light of these findings, section three describes and analyses the organizational case at hand, the Typo3 community. By way of conclusion, section 4 discusses suggestions for further research in this particular field. A method session has been supplied as an appendix to the paper.

2. Theoretical background: Organizational interpretation of and reactions to macro institutional logics

The term institutional logics was introduced by Alford & Friedland (1985) and further developed by Friedland & Alford (1991). These two scholars argue that the interests, identities, values, worldviews, and material practices of individuals and organizations are embedded in institutional logics. At the same time, individuals and organizations are able to elaborate on these logics. Thus, the two scholars develop a perspective on society as a potentially conflictual, inter-institutional system, in which no institutional order should be accorded causal primacy a priori, and individuals, organizations, and institutions must be seen as nested. Friedland and Alford (1991:248) define institutional logic as a set of material practices and symbolic constructions, which constitute its organizing principles, and they identify the five most important institutional orders in contemporary Western societies: capitalism, state, democracy, family and truth (religion as well as science). The routines of each institution are connected to rituals, some which define the order of the world and the individual's position within it, and rituals that reproduce belief in the institution (p. 250). The conflictual institutional orders are, however, interdependent, which causes uncertainty as to how to interpret a concrete practice. The two scholars thus argue that some of the most important struggles among individuals, groups, organizations and classes concern a) the appropriate relationships

between institutions; b) which institutional logic should regulate various activities; and finally c) which categories of people they apply to (p. 256).

Friedland & Alford focused on institutional logics at a societal level. In recent years, however, other scholars have applied the concept of institutional logics to other phenomena, or levels, e.g. organizations, markets, industries, inter-organizational networks, geographic communities, and organizational fields (Thornton & Ocasio 2008:106/8). Thornton & Ocasio argue that the variety of levels may have led to imprecision in research, so that any logic at any level of analysis may be characterised as an institutional logic. They suggest that the level of institutional logics has to be clearly defined and that institutional logics are understood as sources of legitimacy and provide a sense of order and ontological security. In other words, institutional logics are more than logics of action or interpretative framework. In the analysis of the Typo3 community, I follow Thornton & Ocasio's recommendation by clarifying the analytical level at which I identify institutional logics.

Although the concepts of 'interpretation' and 'meaning' have been of central concern to neo-institutional theory, it may be argued, as Zilber (2008) does, that early theorists were using these concepts in a very abstract way. They did not explore how people actually responded to different macro-institutional logics. In mid-1990, however, Scandinavian scholars began to develop this line of argument and other scholars followed their course in the following years. Following their lead, this paper focuses on the way in which organizations interpret macro-institutional logics and translate (Czarniawska & Joerges 1996) them into practice in their local contexts (Czarniawska & Sevón 1996). Some of these studies have focused on individual actors and context (Suddaby, et.al 2010) but without giving attention to the interaction between the sense-making actors. Only a few studies have directly addressed the interactional aspect (Weber & Glynn 2006, Westenholtz 2004, 2006). I will return to these studies in section three.

Studies of institutional logics have primarily focused on a) strategies of action at e.g. the organizational field level or b) how institutional logics at a higher level of analysis, for example, the societal level, transforms strategies at a lower level (Kraatz & Block 2008:264/5; Thornton & Ocasio 2008:119). Within neo-institutional theory, very little empirical research has focused on the organizational level. This may be due to an assumption within neo-institutional theory that the organization is perceived as an entity upon which higher-level institutional logics have an impact. I do not disagree with this assumption, but I would like to argue that organizations are entities in their own analytical right and may interpret and react to higher-level institutional logics in their own

specific way. When doing so, they may even have an impact on institutional logics at a higher level of analysis.

Organizations may react in different ways to the existence of different institutional logics in their environment. Oliver (1991) deals with this issue, introducing a framework for 'strategic responses' to institutional processes. She argues that there is a range of responses available to organizations facing institutional pressure, and she discusses the contexts in which these responses would be most likely to occur. Responses vary in terms of how they involve organizational agency, ranging from passive to active, allowing Oliver to propose a five-part typology: acquiescence, compromise, avoidance, defiance, and manipulation. Her research is purely theoretical, so she calls for empirical research in this area, including perceptual measures of organizational responses. Following Oliver, I wish to argue that organizational responses are more than strategies. They may be understood as ontologically meaningful ways of reacting to different macro-institutional logics. To understand organizational reactions, we need to assume an interpretative perspective.

Let us look at studies of how organizations, through interpretive processes, have reacted to pluralistic, higher-level institutional logics. I will be focusing on the organisational level and will not include interpretive studies of institutional changes at macro-level (e.g. Greenwood, Suddaby & Hinings 2002; Meyer & Höllerer 2010; Suddaby & Greenwood 2005), nor will I include studies of institutional organisational changes that do not assume an organisational interpretive approach (e.g. Dobbin & Down 2000).

First, organizations may *resist* the introduction of what they perceive to be a contradictory institutional logic. Feldman (2003) brings such an example to the fore when she examines managerial processes in the housing division of a large state university. Competition, hierarchy, and the lack of direct responsibility characterise this organization. The directors in the housing division are keen to change this culture. They wish to develop an organization that is driven by cooperation, teamwork and a keener sense of direct responsibility. To achieve this, they suggest the creation of a 'consensus list' in the budget routine to encourage performances what will contribute to a change of culture in the organization towards more cooperation, less hierarchy and more direct responsibility. Feldman does not apply the concept of institutional logics, but if she had, her case would clearly reflect the presence of two different institutional logics: management tries to introduce a cooperative institutional logic in an organization that is infused with the logic of hierarchy. Feldman describes how the other organizational participants (workers) resist this change, even though they

are actually not adverse to change or the cooperative logic per se. Why do they resist, then? To answer this question, Feldman analyses the way in which the participants make sense of the 'consensus list', and how this idea relates to other routines in the budget, as well as other routines in the organization in general. All existing routines reproduce the organization as it *was* and not as it could be – and do not fit the new 'cooperative' routine. Consequently, the process leaves the participants with a feeling that management does not really 'walk the talk': They value cooperation but they are not willing to change all routines so they comply with culture they wish to cultivate. Feldman argues that the resistance to change and the reproduction of routines occur "because organizational participants are making conscious efforts to understand what actions make sense in the context in which the work is being performed. The argument is that organizational participants use what they understand about how the organization operates to guide their performances within the routines." (Feldman 2003:727).

Second, organizations may react by *replacing* an institutional logic with another. Unfortunately I have not been able to trace empirical studies that reflect organizational members' interpretation of different higher-level institutional logics and the subsequent replacement of one institutional logic for another. Most studies that call for such radical organizational change apply a neo-institutional approach and find their example at organizational field or societal level (e.g. Dobbin & Dowd 2000). Consequently, the ensuing ruptures are often understood as exogenous shocks to the system (Schneiberg 2007:50). Other studies are purely theoretical, for example that of Greenwood & Hinings (1996). Attempting to understand why organizations may respond radically to institutional prescriptions, they suggest a set of hypotheses for such intra-organizational dynamics. They propose that radical change will occur if the organizational members have either a competitive or a reformative value commitment. This is most likely to be found in peripheral rather than core organizations, in organizations with a complex portfolio, and in institutional contexts that are loosely structured. These types of commitments have to be combined with an enabling pattern of power dependencies and sufficient capacity for action.

Third, organizations may translate several institutional logics to their local context and let them *coexist* in the organization. Reay & Hinings (2009) study an example of such an organizational response. They analyse Alberta's health care system and show how a new institutional logic – a more business-oriented approach to health care – was introduced in 1994, challenging the previously dominant institutional logic of medical professionalism. Physicians in Alberta's health care system did not agree with the new logic, but although they fought back, guided by their logic

of medical professionalism, they could not convince the managers in the state administration, who favoured a commercial approach to health care. Thus, two logics continued to co-exist in the organizations and neither could be considered dominant. Through their micro-level focus, Reay & Hinings identify four mechanisms for managing competing logics. They constitute different components of formal and informal collaborative relationships established inside organizations. Each of the mechanisms allows physicians and managers to maintain their independence as well as collaborate with each other. Adding to Reay & Hinings' argument, Westenholz (1993) suggests that the co-existence of contradictory logics is possible because the organizational members have a pluralistic approach to difference. She describes a 'pluralistic' employee as someone who accepts contradictions as legitimate, and he/she sees the organization as constituted by different groups ascribing to different frames of reference.

Fourth, organizations may translate different institutional logics to suit their local context and let these logics *compete* and reach a *temporary truce*. In an historical study of Copenhagen Business School (CBS), Borum & Westenholz (1995) show that the business school has been embedded in shifting organizational fields and institutional logics since its foundation in 1917. Different socially constructed actors, internal as well as external, have contributed actively to shaping the organization in such a way that several institutional logics (i.e. that of the business, the public institution, the university, the political organization, and the international business school) have been translated to suit the local organizational contexts. Actors have done this by adopting and fighting for particular structural components in order to support their own socially constructed interests – or, alternatively, by fighting for the structural components that they assume to be most appropriate (March & Olsen 1989:21-29). Control has shifted between different actors and no single constituency has ever been in complete control. Thus, an institutional logic introduced in one period of the school's history has not been erased by those of the following periods. Consequently, CBS of today bears the imprint of several (five), often conflicting, socially constructed institutional models, which represent both possibilities and constraints to entrepreneurial efforts toward organizational change. In another study Cooper et al. (1996) identifies the organizational response to a shift in discourses in the institutional context of two law companies. They describe the collision of an old archetype that represents law firms as partnership/professional organizations and a new archetype that perceive them to be professional businesses. Cooper et al. point out that the two law firms do not respond to this institutional change by shifting from one archetype to the other; rather, they reflect a competitive commitment to these two different archetypes.

Fifth, organizations may translate several institutional logics to their local context and develop a *hybridized mode of organization*. I define ‘hybridizing’ as a process of combining contradictory elements in a ‘both/and’ approach, which simultaneously holds the contradictory positioning in mind (Hargrave & Van de Ven 2009:127/9). In organizations that react to higher-level institutional logics by hybridizing them, none of the logics are compromised nor dispensed with. They are not melted into a unified logic either (Albert & Adams 2002:35). Hybridizing is also sometimes referred to as ‘dialectical processes’ (Hargrave & Van de Ven 2009:121/4; Seo & Creed 2002) or ‘paradoxical processes’ (Cameron & Quinn 1988, Van de Ven & Pool 1988; Westenholtz 1993). Some scholars use the concepts of ‘hybrid’, ‘dialectic’ or ‘paradox’ in their studies of institutional logics, but most of them deal with these concepts in a theoretical way (Haveman & Rao (2006). They do not deal with empirical studies, nor do they analyse organizations’ interpretative responses to different higher-level institutional logics (Glynn & Lounsbury 2005; Haveman & Rao 2006; Ross & Conlon 2000). An exception is a study by Boxenbaum (2006) where she investigates the way in which a group of Danish business actors translate an American diversity management practice into a hybrid managerial practice in Danish companies. The diversity management frame conflicted with the principle of democratic decision making, which is so highly valued in Denmark. By strategically reframing and grounding the new concept, the actors managed to implement diversity management as a hybrid phenomenon in the companies. Another example of hybridized logic is presented in a study by Westenholtz (1993) in which she analyses a worker-owned newspaper ‘Information’. Westenholtz describes how three different frames of references developed among the employees since they took over the newspaper in 1970. Some perceived the newspaper to be a ‘business’, others saw it as a ‘wage-earner-system’, and a third group referred to it as a ‘democracy. Although Westenholtz does not relate these frames of reference to higher-level institutional logics, it is very easy to do so: The ‘business’ reference clearly derives its meaning from the institutional logic of capitalism (Anglo-American version); the ‘wage-earner-system’ reference draws on the institutional logic of corporate capitalism (Northern/Central European version); and finally, the ‘democracy’ frame of reference comes from the institutional logic of democracy (the newspaper as a micro-democracy). Westenholtz describes how the employees relate to each other by applying three different approaches: a logical approach (dualistic either/or mindset), a pluralistic approach (both/and mindset), and a schizophrenic approach (combining either/or and both-and mindsets). It is the schizophrenic approach that is reflected in hybridized institutional logics. People bring contradictions together simultaneously, holding the contradictory positions in mind.

Figure 1 summarises the above-mentioned studies and charts the five different ways in which organizational members interpret higher-level institutional logics.

Insert figure 1 here

In the following sections, I wish to unfold the hybridizing organizational response to several widespread institutional logics. I will do so by analysing the organizational case of commercial open source software, specifically the Typo3 community.

3. The case: the creation of Typo3 - a commercial open source community

3.1 The historical development of software within two organizational fields

The development of software began in the US in the 1950s and expanded over the following decades into a global organizational field in the sense DiMaggio and Powell (1983:148-149) define a field as ‘sets of organizations that, in the aggregate, constitute an area of institutional life; key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products’. A meaning system developed in the field, which saw it as natural that software development took place within open innovative communities in which professional developers and users shared knowledge about products across private and public organizational boundaries. In the 1970s, private companies created a different meaning system that understood software development as a commodity, subject to proprietary rights. (Weber 2002). By the end of the 20th century two organizational fields had emerged, each producing software in different ways: On the one hand an organizational field of commercial software infused with an institutional logic of capitalism, which constituted its organizing principle as accumulation and the commodification of human activities. (Friedland & Alford, 1991:248). The software was looked upon as a commodity. It was produced by companies, developed by employed developers within a closed innovation model and regulated by patents and copyrights. On the other side an organizational field of open source software infused with an institutional logic of technology. (Friedland & Alford, 1991:248). Within this organizing principle the software was looked upon as a technical device, developed and used by voluntary actors within open communities applying a copyleft licence, with little or no focus on earnings. (Westenholz 2009).

Insert figure 2 here

3.2 The creation of a new practice for software development within Typo3 community

The two organizational fields constituted the global platform for software development at the end of the 1990s. At that time, a young Dane, Kasper Skårhøj, began to develop a content management system (CMS), which he named Typo3. He worked as a freelancer – and every once in a while he would provide services related to Typo3. Kasper developed the first versions of Typo3 software himself and in 2000 he decided that it was ready for release. He released his software as an open source product on a GPL license – an open source license. This choice of embedding the software within the organizational field of open source software and infusing Typo3 with the institutional logic of technology and community life was instinctive for Kasper. He enjoyed sharing with other people and, at the same time, he had no desire to become involved in the business-side of such a product launch. Kasper Skårhøj and his Typo3 software soon attracted an international community of voluntary developers, suggesting new product requirements, which made it clear that the product was far from finished, but rather in an early stage of development. The developers - with Kasper Skårhøj at the centre – continued to improve on the product and they received positive reviews in several German magazines that compared Typo3 with similar, but commercial products. 'Typo3 generally stood head to head with these – even though Typo3 was the only one among the competitors which was non-commercial, free and under the GNU Open Source license!' (Typo3 Ass. website).

In the years that followed, new practices were developed combining elements from the two organizational fields mentioned in figure 1. In 2006, the Typo3 community's core developer group had increased, with an inner circle around Kasper Skårhøj consisting of five to seven people and an outer circle of 10-15 people. Outside these two primary circles are thousands of Typo3 users worldwide that are organized in user groups and user lists. Some users use the product in public and private companies, while others use it for recreational purposes. In 2006, the total number of Typo3 solutions was estimated to around 40,000 worldwide. Some actors are only end-users of the product while others are 'active' users who provide documentation, code examples, bug reports, etc. to the community. In 2006, the number of active users was estimated to be around 35,000 (Kraft & Hinderik, 2006). Users are both commercial and non-commercial, depending on whether or not they sell services in connection with the implementation of Typo3 to a customer or a user. The commercial users (both 'active' and 'passive' vis a vis the development of the product) amounted to 1,500 companies in Europe, North America and Asia. (Typo3 Ass. website)

From an organizational perspective, Typo3 emerged as a *commercial and open source community* – and not, as many other open source software communities, as a community of exclusively voluntary developers and users. Voluntary developers and users also belong to the Typo3 community. However, when comparing people who are earning 50-100 per cent of their annual income from Typo3 to people who are earning less than 50 per cent, the former group of ‘commercial Typo3 people’ spend more hours on Typo3, interact more frequently with others about Typo3, participate in social Typo3 events, and perceive themselves to be part of the Typo3 community, both at a local, national and global level. They also feel better known in the community and express views that someone should be appointed to manage socialization in the community (Westenholz 2007).

The new material practices within the community can be exemplified in the following way:

- Some software developers, employed in a Typo3 company join the development of the core Typo3 software on voluntary basis, together with volunteer programmers and programmers from other companies.
- Some developers working in a Typo3 company assist, on voluntary basis, Typo3 developers outside the company, helping them solve their software problems.
- Some companies developing Typo3 software for specific customers release knowledge to the Typo3 community.
- Several companies working together to develop specific elements of Typo3 software release knowledge to the Typo3 community.
- Some companies, who develop Typo3 software internally, release knowledge to the Typo3 community.

In this paper, I focus on practices where the voluntary and employed developers co-develop software in different hybridizing ways¹. Many of them experience that it has become natural for them to blend symbolic elements from the market and the open source community. A few citations from commercial actors from 2006 may illustrate this type of blending:

“We have done a lot of work for Typo3. What we develop, *we like to share with others* ... what we do, others enjoy and we do not think we lose something by publishing it. *We still have the expertise and know-how when it comes to the new system* ... where we earn our

¹ In another paper, I examine situations where voluntary and employed developers are divided into subgroups, and I try to unravel how they approach coordination by adopting a disorganized approach.

money, we get something other people have developed, so in this way, we enter some kind of community where we draw on [the work of] a large number of other people, and then we give back to the community as best we can. In our case, it is not just financial, but more about investing our time and publishing some of what we have created.” (Programmer and managing director) (My italics)

“What happens when you *release something, is that people start using it*, and if we’re still in a process with the client – sometimes you release it [the extension] before it has been completed –you get an enormous amount of inquiries from people wanting to know what’s wrong with it, why it doesn’t work properly, etc. More than 100,000 users will get errors on the same thing. And thousands of programmers too. So error messages come in very quickly. *And they allow you to correct the specific errors. In that way, the [people responding] actually do work for you for free.*” (Employed programmer) (My italics)

“If I see a bug in a *client application we have to fix it, because the client wants the software*. And if we fix it by resolving a bug in a TYPO3 core, *we give it back* to them [the core team]. If we fix it by resolving it in an extension, *we give the information back* to the information maintainer.” (Programmer and managing director) (My italics)

To sum up: TYPO3 was ‘born’ at the end of the 1990s at a time when most software development was embedded within either an organizational field infused with an institutional logic of technology or within an organizational field, infused with an institutional logic of market capitalism. Released in 2000, TYPO3 got embedded within the first -mentioned mature organizational field as an ‘anti-commercial’ technical device based on an open source software *copyleft* license. The material practices and symbolic constructions soon began to change: from being infused exclusively with the institutional logic of technology it became infused with *both* an institutional logic of technology *and* an institutional logic of capitalism; the software changed from being primarily a technical device to becoming both a technical device and a commodity; the actors changed from being exclusively voluntary developers and end-users relating to each other within a community life and applying an open innovation model – to include commercial companies and employed developers operating on a market with customers.

In the following section, I focus on some of the local processes that have taken place connected to the changes in the material and symbolic practices within the TYPO3 community between 2000 and

2006. I have divided the processes into three different types of local processes each defined by a specific combination of the actors involved and the stories negotiated between the actors.

Interaction between a commercial actor and voluntary open source developers negotiating stories about ‘the costumer driven market’ or ‘the evil market’

In 2002, when Typo3 software had become embedded in an institution of technology and a community of open source, voluntary and non-commercial developers had begun to take form, a German business consultant, Daniel Hinderink became aware of the Typo3 software. He had been asked by a private company to find the best CMS software, and he found Typo3 very interesting. His vision was to break down the boundaries between the open source community and commercial business:

I had a more or less academic interest in looking at the marketing side of an open source project and finding ways of promoting and communicating what especially open source has to offer commercial users, because up to that point that had hardly been done in the open source world. There was hardly any professional communication, and also the business model that has now arisen – that some companies even start publishing open source software was known then – *it was really communities **against** companies* (author’s italics). Building sort of a bridge there – at least to companies as users it was an interesting thing to do.’

Daniel Hinderink contacted the founder of the software Kasper Skårhøj and they agreed to meet in Munich during the summer, 2002; other open source developers participated in this meeting, too. Thus, the scene was set by an unknown and not in any sense powerful performer – a young commercial actor unknown to the Typo3 community. This performer believed the boundaries between the two institutional settings of software development could be transgressed by combining activities within open source software development and activities within the commercial world. He created a scene by arranging a physical meeting with the founder of the software and a few open source Typo3 core developers. The founder and the other open source developers were all drawing on the symbolic construction of technical science developing the software, and they were either opposing or unknown to the commercial world. In the interaction between the commercial consultant and the developers, the latter expressed that they did not believe in marketing as it was not motivated by an interest in developing useful software, but rather by selling things people did not need. The commercial consultant then produced a story strategically redefining the concept of

'marketing' from being something negative, implying that companies lie to customers, to being something positive, i.e. an understanding of customer needs. In this way, the concept of the market was changed from an enemy and turned into an ally. This is how Daniel recalls this episode a few years later:

'Well, first of all I introduced them to the whole idea of marketing in the first place. They had no idea. They were all programmers, and they thought marketing was about advertising and about selling things to people that they don't need. What I needed to explain to them was that marketing is about understanding people's needs and either customizing the product or explaining the product in a way that matches the needs. That was the whole point. For example, we collected all the disadvantages of open source that they could think of, and then we made a little exercise of taking each of these disadvantages and explaining them in a way that turned them into advantages... They were quite thrilled, actually. They liked it ... two or three of them ... told me that no one had ever really explained it to them. *They had never been convinced that there was something good to marketing* (author's italics) and that [it] was not about lies – [but] about customizing and ... understanding needs. So that was rather productive, and it did trigger a lot of activity and planning, especially with the outbound communication. Two platforms were discussed and shaped at that meeting and then became reality during 2002.'

At the meeting the founder of the software and the other open source developers were persuaded to change their story about the market from something 'evil' to something about 'customers need'. This change of story about the market created the opportunity to develop a new material practice of co-operation between the non-commercial developers of Typo3 and commercial companies wanting to sell Typo3 services to public organizations and private companies. But it also had another important effect, namely to define two types of occurrences critical for the further development of the software. *Firstly*, some of the commercial companies who got involved in developing and selling Typo3 defined varying degrees of open source as strange, and kept their development of the software in-house, not sharing it with the rest of the community. This was not acceptable to the open source developers. *Secondly*, some customers were critical towards the open source software and did not think it as reliable and trustworthy as software developed in the normal proprietary way. Their scepticism threatened the involvement of the Typo3 companies if they could not sell their product to customers on the market. The two occurrences sparked what subsequently happened in the two following types of micro processes.

Interaction between community members and commercial companies negotiating stories about ‘sharing knowledge’ or ‘not-sharing knowledge’

After the meeting in 2002 many companies have joined the Typo3 community, and they have contributed in many different ways with time and energy (e.g. organizing conferences, meetings, skiing tours, etc. within the community), money (e.g. payment of membership fee to the new Typo3 Association) and knowledge to the community (e.g. development of Typo3 software freely available to the community). Within the community, it is accepted that there are several ways of contributing. However, the lower limit to ‘contribution’ has not actually been defined. This has given rise to episodes where commercial actors selling Typo3 software have been labelled selfish, and terms such as ‘free riders’, or even worse, ‘thieves’ have been used.

One response within the community has been to threaten with sanctions if the companies did not stop acting in a selfish manner. This has been the case where some Typo3 companies have a proprietary background where you pay for the software. Some of them have renamed Typo3 software and sold it to their customers. Such a manoeuvre is illegal under the open-source license to which Typo3 is assigned. From the community’s point of view, it is considered theft and total free riding. I am not aware of any examples where the Typo3 community has taken these cases to court, but the problem has clearly been dealt in another way. A member of the community states:

‘In the beginning, there was a lot of misuse of Typo3 itself. There were a couple of companies in my country that had just renamed Typo3. [W]e did not exactly threaten them with legal action, but my partner and I, we have a major function as being representatives of Typo3, and we e-mailed or phoned these companies and asked them to stop the misuse... When the pressure is high [they stop]. The community is so large that they would not dare not listening. There are so many people that use Typo3 that this gets out very quickly.’

Another more positive response has been pointing out the importance to companies of sharing knowledge with their fellow community members. A significant example of such a process occurred in early 2003 when a discussion started on how to develop the software further. It evolved into a fierce confrontation between the founder of the software – Kasper Skårhøj - and some core members. The founder vanished for about three-four weeks, and suddenly he came back with a whole new system. One of the managers in a Typo3 companies make this interpretation of the incident:

‘I guess you know the sensation when you give a present to a loved one, and you are so eager about the point in time when they open up the gift and unwrap it, and you are so much looking forward to their happiness. That is much more important to you than all the gifts you will get. And that is the driving force for Kasper. That kind of feeling is what is inside that sentence ‘inspiring people to share’ – that is the core of the thing – that is what Typo3 is – to me at least. And that was really the moment, which was absolutely amazing. He made a website, he made a whole system, and he made some features that are still unparalleled...And he came around the bend with that, and that was such a big gift. *It was almost impossible to accept in a way. I just love that kind of generosity. I felt that was very inspiring for me. I think that was sort of one of the best moments I guess. I think he has done that before and also after, but never at that level - that scale.*’ (Author’s italics).

Another episode from a Typo3 conference in 2006 in Germany may also illustrate this process. At the conference 250 participants (mostly Typo3 companies) came together to share ideas about the product. At the beginning of the conference the participants were gathered in a conference room – like in a theatre, all facing a small stage at the front. Kasper Skårhøj and three other developers from the core group enter the stage. Enter is perhaps the wrong word, they literally dance onto the stage, wearing black wigs, singing ‘*Can’t buy me love*’ with ‘*I do not care too much for money*’ as their central theme. The audience laughs, takes pictures and applauds them.

When the song ends, Kasper Skårhøj is the only one left on stage. He takes off his wig with a grin: ‘I want to be taken seriously’. It is time for the keynote speech. He starts by thanking those who have voluntarily made great efforts to make the conference happen, and he moves on to inform everyone of the past year’s events in the community. With the formalities over, Kasper dedicates the rest of his keynote to one central theme: *inspiring people to share*. As an opening to this topic, he draws on the simile of the *bazaar and the cathedral*, pointing out that TYPO3 would not have a competitive advantage by building cathedrals. The organization of Typo3 is like a bazaar and that is what the community needs to maintain .

The next image to appear on Kasper’s power point slides presents pictures from a natural disaster in Central Asia. We see a picture of a lake where the inlets have been clogged causing fatal disasters for the people living near or the banks. Kasper’s point is, of course, that without an input there cannot be a proper output: ‘*There must be a source to produce a source*’. This statement leads into a very personal comment from Kasper, who declares that he feels burned out, but he has discovered

the reason for this: there are no inlets to fill him up. In other words, *a balance between input and output must be restored!*

To clarify this point, Kasper moves on to talk about motivation within the open source community. He begins by showing a funny episode from the famous American sitcom, *Friends*, which revolves around the question of whether or not there exists such a thing as an *'unselfish deed'*. The conclusion is that it is hard to find an unselfish deed. After the screening of the *Friends* episode Kasper lists six motivating factors, which he believes make sense in the Typo3 community: personal itch, fun, ideology, social life, fame and even promotion— the latter of which, according to Kasper, does not play a role for him, but it definitely does to others within Typo3 community who sell their services.

Following the motivation pep talk, Kasper refers to a parable from the Bible in which a master gives his three servants an amount of money to take care of while he is gone. The two servants use the money to double the assets, while the third keeps the money in a hole in the ground. When the master returns, he is happy about the two productive servants and dissatisfied with the third. Kasper uses this story to tell his audience that he wants to use his talent to create something bigger than himself. In this context, the word *sharing* – not producing – is important. –However, if there is no input, there cannot be an output, and therefore *Mr Nice Guy* (the one who shares) is continuously combined with *Mr Self-Interest* (the one who produces). In the community you must not be blind to the importance of the existence of Mr Self-Interest. All the things that have not happened, according to Kasper, can be explained by the fact that there not has been enough self-interest there to make them happen.

'Can you fix this problem?' Kasper asks the audience and throws another video clip on. The clip is from the British children's programme, *Bob the Builder* with the famous jingle (to which Kasper sings along): 'Bob the Builder – can we fix it?' *'Yes we can'*. We can fix it, argues Kasper, if we recognize our personal interests, if we have the passion and love for the product, and *balance the contributions* so we don't each of us burn out. That will lead to a healthy community and an inspiration to share.

He ends his keynote speech with the words: *'You need to tell me that you want the kind of things which cannot be bought for money'*. And in this way, his keynote has come full circle, returning to the lyrics from the introductory Beatles song. He ends his speech, and the conference delegates, who have sat completely still for 45 min, applaud.

There is no doubt that Kasper Skårhøj inspires most of the commercial company within the community – not only because he walks the talk in terms of practicing good community conduct; his way of addressing the companies is also very charismatic and captivating. He uses storytelling and podcasts on the Typo3 homepage; he dances and sings in front of his audiences, and he's prone to use metaphors to illustrate his points. In the 2006 survey, 56 per cent of company representatives stated that 'companies developing or modifying Typo3 should make their knowledge immediately accessible to other users of the software'. This statement was somewhat modified by the fact that 78 per cent also stated that 'companies developing or modifying Typo3 should make their knowledge accessible to other users of the software when the companies find it right to do so'. But whether the first or the second of these statements are followed, both reflect the community spirit that exists between the company and the Typo3 community. This spirit is significantly different to that found in a company which only defines itself as a part of a commercial market. At the same time, these statements also indicate that companies have different notions of when and to what degree they are obliged to contribute to the community.

Interaction between Typo3 companies and their customers negotiating stories about 'unreliable open source software' or 'reliable open source software'

The increase in Typo3 companies did not just happen automatically as the result of an idea spreading worldwide. As Daniel Hinderink explains, there was a time when 'having open source products was kind of a revolutionary thing to do, and promoting it was a way of also stepping on a lot of toes...' So in the third type of micro process – which takes place more or less at the same time as the second but later than the first – some of the Typo3 companies have to deal with their customers' perceptions of the software as an open source software. Some customers did not know about Typo3 software, and others were very sceptical towards it, questioning whether this type of software was as reliable as ordinary commercial software produced within the known commercial innovation model, using copyright, etc. Therefore, Typo3 companies had to create new stories to convince customers (and probably also themselves) of the advantages of engaging with an open source product.

Among the commercial Typo3 businesses who participated in a 2006 survey, 74 per cent responded that they had publicly advocated the use of open source as a business concept – and 90 per cent had tried to convince others of the appropriateness of Typo3 as a business concept. The figures are indeed significant, reflecting that commercial players have put a lot of effort into convincing others

of the benefits of the open source concept. 78 per cent of the respondents answer that they have tried convincing customers.

I have examined the types of arguments used to convince others of the advantages of using Typo3 as a business concept. More than two thirds of the commercial actors have argued *pragmatically for embedding a new practice (open source) in the existing economic market behaviour* by comparing Typo3 to proprietary software in terms of competitiveness, cost and usability. More than half of the respondents have also argued that when it comes to quality, reliability and support, Typo3 software is equal to, or better than proprietary software. These arguments are obviously targeted towards customers since they are the most common audience for the performances of companies. More than half of the respondents have also used a *visionary argument by discriminating between the open network society of the future and the closed industrial society of the past*. Thus, Typo3 is described as open software belonging to the future. Moreover, almost half of the population has proposed *embedding a new practice (open source) in certain markets*, small and medium sized enterprises, public companies and private organizations. Only a minority has related to Typo3 user groups; this is reflected in the relatively few respondents who stress the importance of Typo3 companies playing by the rules and accepting the norms of the Typo3 community. (Westenholz 2007).

The customers bought into the arguments. The 2006 survey reflects a marked increase in the amount of customers showing a positive attitude towards the software: 37 per cent of respondents were positively inclined when they initially heard about Typo3. This figure had risen to 81 per cent in 2006 when the survey was conducted.

3.3 What does the Typo3 case tell us about the organizational interpretation of, and reaction to widespread institutional logics?

The Typo3 case reflects the way in which the symbolic and material practices change in the community developing the software. During the community's early years (2000-2002), the software is developed in a mature organizational field where the participants enact the institutional logic of technology. In the following years, however, the material practices relating to software development as well as the meaning ascribed to these practices change. The change may *not* primarily be described as a process moving from one institutional logic to another one, or to a situation in which the symbolic and material practices become embedded in multi-institutional logics in which different and separate identities exist and cooperate in some way. Contrary to the

development of multi-institutional logics, I argue that the change should primarily be understood as one of hybridization: a process of moving away from the enacting of one institutional logic (i.e. the logic of technical science) to a situation in which what seems to be incompatible *and* indispensable elements from the institutional logic of capitalism and technology are blended. This interpretation is in line with findings by Albert & Adams (2002); Rao et al. (2003); Glynn & Lounsbury's (2005); Haveman & Rao (2006). Some of the citations above illustrate this hybridization of logics: e.g. companies developing the software to a specific customer have no problem releasing their knowledge to other companies or voluntary developers within the community. They justify their action by telling stories about the synergies that link market and community lives.

Insert figure 3 here

The following question sustains the ensuing analysis:

How do participants in the Typo3 community interpret and react to different higher-level institutional logics in a hybridizing way?

To answer this question, one needs to bear in mind that the community was embedded in a mature organizational field from the very beginning – one that was infused with the institutional logic of technology. Its community members did not launch the change of practices within the Typo3 community; they were not keen on change and they did not perceived any internal or external social, technological or regulatory jolts to be destabilizing to their existing practice. Rather, the change was initiated by an institutional entrepreneur arriving from a different organizational field – one that was infused with the institutional logic of capitalism. He invited himself to a meeting with the core community members and staged himself as a performer offering an alternative – a new idea – combining elements from the different institutional logics in the two organizational fields. In other words, he suggested a hybridization of the two institutional logics. In this performance, the Typo3 community members became an *institutional audience* who were persuaded by a normative script that affirmed that the market was morally acceptable and its logic could go hand in hand with the idea of open source development and community life. It was not phrased as a story replacing the old identity of the community with another contradictory identity, moving it e.g. from being an open source software community to becoming a market-oriented software organization. Consequently, the early construction of powerful community members as *institutional audience*, *accepting* the idea of *hybridizing institutional logics* as a *normative opportunity*, seems very important for the change process.

Secondly, this shift in community identity attracted many commercial newcomers to the Typo3 community. These newcomers were market actors and, for this reason, infused with an institutional logic of capitalism. They soon realized that the market did not know of, or did not like the idea of buying a product developed within an open source community. Thus, their customers were reluctant to buy services from them. The new commercial members of the community took upon themselves the role of institutional entrepreneurs moving into the marketplace and pragmatically persuading customers that it is in fact possible to combine open source development processes with a solid and non-expensive software product adapted to customers' need. Compared to neo-institutional theory, a reversal of dynamics is at work here: the organizational level exerts pressure on the organizational field level – not the other way round. *Many organizational institutional entrepreneurs* were involved in the community's change process and in the survival of the companies on the market.

Thirdly, the entrance of commercial actors (businesses) within the community introduced a new dynamic in the community. Some companies acted with true community spirit, contributing to the community in many different ways; while others acted more like 'normal' commercial companies not sharing (enough) knowledge/energy/money with other community members. Within the community, some core members – especially the founder of the software – started acting as an *institutional leader* e.g. on the community homepage and at key community events (e.g. annual conferences). As an institutional leader, he told stories of the community mixing elements from different institutional logics (being selfish *and* being altruistic) and connecting the contradictory elements in a 'both/and' approach. His way of performing as an institutional leader persuaded many of the commercial companies within the community to engage in more hybridized practices.

To sum up, the Typo3 case reflects a shift in organizational practice from one infused with the institutional logic of technology to one infused with the combination of two institutional logics: that of capitalism and that of technology. In this process, community members have acted as *institutional audience, institutional entrepreneurs and institutional leaders* – inside the community as well as on the market – in an on-going process of actively negotiating and enacting the symbolic constructions of hybrid practice. I believe the Typo3 community changed because of the combination of different types of institutional actors within the organization. These institutional

actors greatly influenced the way in which the practice changed towards hybridization rather than loose couplings or the substitution of one institutional practice for another.²

I have been wondering why I had not identified institutional work (Lawrence & Suddaby 2006) done within the Typo3 voluntary developers, and I have come up with two different explanations. It may be because I have been focusing specifically on the commercial members in the community, and not paid sufficient attention to the many voluntary developers. Had my focus been wider, I might have observed the interactions going on between voluntary developers and core members of the community, and noted their negotiations of the symbolic meaning of various practices and the identity of the community as such. Secondly, very little institutional work has been done involving the many voluntary developers – either because they followed the founder of the software when his perception changed, or because they did not play an important role within the development of the software and were therefore not included in the institutional work.

4. Concluding discussion

In this final section, I will discuss two issues: the relationship between micro/actor and macro/structure approaches within institutional theory, and hybridization as an organizational response to different widespread institutional logics. By way of conclusion to the paper, I wish to draw attention to what I consider to be fruitful directions for future research in this field.

4.1. Transgressing micro/actor and macro/structure approaches

Within institutional theory, the micro/macro and actor/structure debate has had a tendency to fall into two camps, defined as old and new institutional theory. The old institutional theory (Selznick 1957) subscribe to micro-agency studies, focusing on institutional leadership at the organizational level; the new institutional theory argues for macro-structural studies (DiMaggio and Powel 1991), drawing attention to socially-constructed cognitive structures at the organizational field level or higher levels. Many institutional scholars have criticized this distinction, suggesting that these two versions of institutional theory be bridged. Friedland & Alford's (1991) call for this when they

² I am not arguing that no loose coupling took place within the community. In this paper, however, I focus on the tendency within the community to hybridize. Loose couplings within the community will be dealt with in a future paper.

propose a nested level of analysis between institutions, organizations, and individuals – as well as a negotiation of social practices between multi-institutional logics. Some years later, Hirsch & Lounsbury (1997) suggest reconciliation of old and new institutionalisms, in which phenomenological approaches incorporate those that focus on socially legitimated agency. In their 2002 study, Greenwood et al. develop an institutional change model that charts different stages of institutionalization, coupling this with theorizing that involves local interpretations. Strandgaard Pedersen & Dobbin (2006) support the bridging of organizational culture and neo-institutionalism through processes of imitation, hybridization, transmutation, and immunization. Weber & Glynn (2006) see the macro-institutional context level as priming, editing and triggering sense making at the micro-level, and they further argue that people make sense *with* institutions, not in spite of them. Without eschewing new institutionalism, Kraatz (2009) and Kraatz & Block (2008) suggest the recovery of Selznick's organizational institution and leader by focusing attention on institutional pluralism – an argument somewhat similar to the one presented by Friedland & Alford (1991).

The analysis of the Typo3 case contributes to this debate. I argue that the *organizational level* constitutes an important analytical level that contributes to the understanding of institutional change *within the organization* (Kraatz 2009; Kraatz & Block 2008) as well as within *wider organizational fields*. As the organizational members hybridized internal organizational practices, they also engaged in changing the institutional practices in the wider organizational fields in which they were embedded. Otherwise, they would not have been able to justify and legitimize their new hybridizing practice to important external stakeholders (e.g. customers of the commercial members of the organization).

However, the organizational members could not have changed the institutionalized practices without reflecting upon different institutional logics at the organizational field level. Therefore, it would be a mistake to overlook the importance of *the organizational field level* when attempting to understand the institutional change of practice within the organization. First, the organizational field level is relevant since the organizational members use institutional logics to make sense *with* institutional logics at the organizational field level (Weber & Glynn 2006). At the same time, however, the institutional logics also *constrain* sense making since institutional logics and their various combinations make some – but not any – sense-making possible. Second, the organizational field level is relevant as the organizational members have to engage with other actors within the field, persuading them to change their perception of the hybrid practice; otherwise the change would not have been possible.

I also argue that the *individual level* constitutes an important level of analysis. I identify three types of individuals in the Typo3 case, who play an important role in instigating and maintaining institutional change: the organizational institutional audience, the organizational institutional leader, and the organizational institutional entrepreneurs. *First*, although institutional theory takes a relational position, the concept of ‘*institutional audience*’ has not played a significant role – except in a few studies. In their study of organizational names, Glynn & Abzug (2002) indicate that some organizational names are better than others in securing legitimacy from public audiences and that the plurality of audience might suggest that organizations need a multiplicity of names. In their study of the Canadian beer brewing industry, Lamertz and Heugens (2009) apply a similar concept, ‘*institutional spectatorship*’, showing how the symbolic self-presentation of breweries is reproduced by a central spectator: the news media. In both studies, the audience is outside the organization watching the organization. My study indicates, however, that the institutional change within the organization may be an effect of *organizational members becoming the audience* in relation to certain outsiders. Putting themselves in the role of the audience, these organizational members may expose themselves to non-familiar cognitive scripts and thereby engage in institutional change of practices within the organization. This argument is partly in line with Meyer (2006:726), citing Reichertz (1999:332), when she argues that action is not determined by anything external to the actor: ‘everything external is refracted by the interpretation of the actor. This “external” has influence and sometimes power over the actor only if it has gained importance *through* the actor and, thus, *for* him’ (Meyer’s translation of the original German text). I assume change is more likely to happen when the organizational audience is powerful in the organization, as was the case in the Typo3 community. *Second*, the role of *organizational institutional leader* was also played out in the case studied here. Selznick (1957) was the first scholar to introduce the concept of institutional leaders performing three central tasks: They manage the internal consistency of the organization; they develop external support mechanisms that increase the institution’s legitimacy; and they engage in actions to overcome external enemies. (Washington et. al 2008). Glynn & Raffaelli (2010:15) offer a slightly different description of the institutional leader’s tasks. They argue that ‘institutional maintenance is not an assumption of stability, but rather an on-going accomplishment that incorporates processes of translation, negotiation, and enactment (Barley & Tolbert 1997) that requires both agency and action (Berger & Luckmann 1966; Zucker 1988)’. Glynn & Raffaelli further argue that three mechanisms need to be present if institutional leadership and organizations are to achieve the status of enduring institutions: the mechanism of continuity, character and

collectivity. Institutional leaders are engaged in all three types of mechanisms: They engage in storytelling about the past; they represent ‘who we are’; and they manage and construct values that can transcend local conflicts. When we look at the Typo3 organization, the founder of the software took upon the role as institutional leader in changing and maintaining the organization. He told stories about who they were and constructed stories about a hybrid organization that assimilated contradictory scripts from the past. He was able to do so because his followers within the organization had given him the role of leader (Meindl 1993). *Third*, commercial organizational members took upon themselves the role of *organizational institutional entrepreneurs* by engaging with customers within the organizational field of capitalism. Within institutional theory, the concept of ‘institutional entrepreneurs’ has often been ascribed to only a few powerful actors (heroes), e.g. the professions or the state reshaping the institutions within a field (Greenwood et al. 2002). I argue, however, that ‘ordinary’ organizational members may engage in reshaping the institutional logics within their organizational field – simply by working to achieve legitimacy by others within the organizational field in which the organization is embedded.

Based on the analysis, I propose – as others have done too - that the distinction within institutional theory between macro/structure (neo-institutional theory) and micro/actor (old institutional theory) be reframed or even abolished. The so called ‘bathtub’ model (Hedström & Swedberg 1998; Phillips, Lawrence & Hardy, 2004) represents one way of reframing. In this model, the distinction between macro and micro is still maintained, but the levels are connected in a mutual process: e.g. the macro level influences the micro-level (top-down process) through situational mechanism or institutions. At micro level, action-formation is going on (bottom process), producing different text and other transformational mechanisms that influence the macro level (bottom-up). Although the ‘bathtub’ model looks convincing at a first glance, I argue that it does not capture the processes as they unfold in the Typo3 case. The problem with the model is the distinction between the levels: sometimes macro level influences micro level, but at another times, it is micro level that influences macro level. I would like to reframe this connection, arguing that the processes that unfold in the case are better understood as fluid processes in which institutions and actors link together through their mutual everyday engagement with organizational practices. Thus, institutions are created, maintained, and changed as individuals interact, and individuals interact enabled to do so by institutions. In this way, institutions are both a product of, and a constraint on human action. Similarly, human action is both a product of, and a creator of institutions. In my view, therefore, macro/structures and micro/actors should not be separated at the ontological level. This position is

in line with many of the arguments developed by some of Chicago School's 'interactionists' (Barley 2008) and later formulated by Giddens (1984) in his thoughts on 'structuration'.

In their 1997 study, Barley & Tolbert deal with the same problem, which they define as the problem of 'conflation' (a concept derived from Archer 1982). Archer has criticized Giddens' concept of 'structuration' as she believes that the concept reduces structure to action (or vice versa) and that it is difficult to document the existence of an institution apart from activity (the conflation problem). Barley & Tolbert disagree with Archer, siding with Giddens on this issue at the ontological level. They believe institutions exist only insofar as they are manifested in everyday activities. They concede, however, that their critique of the problem of 'conflation' is directed towards the epistemological rather than the ontological issues that it raises. This leads them to develop a diachronic model where they reintroduce a distinction between institutional realms and realms of action.

Instead of reintroducing the distinction between macro/structure and micro/actor in a diachronic model, I suggest that these dimensions are kept together in a process perspective building on the ontology of becoming rather than the ontology of being (Chia forthcoming). Doing so, allows us to *empirically focus on more or less **widespread** institutional logics - material and symbolic practices - that are **locally** enacted within interactions. Within the interactions negotiations take place creating, maintaining, and/or changing the institutional logics.* In the Typo3 organization, I demonstrated how local interaction took place between actors trying to change or maintain widespread institutional logics in their local organizational context.

4.2. Hybridizing organizational practices

The Typo3 organization reflects hybridizing practices in which community actors blend elements from different institutional logics. But why did they hybridize and not resist the institutional change? Why would they want to change their daily practice and allow the organization to become a hybridized phenomenon? In the Typo3 case, I believe the answer to these questions is found in the combination of four factors:

- External inspiration – no external pressures or shocks
- Organizational members as institutional audience
- Frames following a logic of appropriateness – not only a logic of consequentiality

- Organizational institutional leadership defining hybrid frames

Let us examine these four factors individually.

In the literature on institutional change it is often assumed that organizational change occurs due to external pressure or shock – e.g. social, technological and/or regulatory events that destabilize established practices within the organizational field (Greenwood et.al. 2002; Haunschild & Chandler 2008; Schneiberg 2007). In the case of the Typo3 organization, however, there are no external pressures or shocks that destabilize practices within the organization. An external actor embedded in another organizational field of commercial companies contacts the Typo3 community, suggesting that the organization combine practices from two organizational fields (i.e. the institutional logic of technology and the institutional logic of capitalism). This person has no status in relation to his audience, and his idea is not very concrete. In fact, he could not even identify any examples from real life that reflected the practice of hybridization. However, he had persuasive social skills (Fligstein 1997), listening to his organizational audience and framing the idea in such a way that they began listening to him – and the idea became theirs. Thus, it is not external pressures or shocks that destabilize organizational practices in the Typo3 organisation but rather *'external inspiration' that inspire the shift to hybridization.*

In institutional studies, the concept of 'the audience' has not played a significant role. When an audience is mentioned, it typically refers to actors examining the organization from the outside (Glynn & Abzug 2002; Lamertz & Heugens 2009). When we look at the Typo3 organization, certain powerful organizational members play the role of audience in relation to the external performer mentioned above. That is why I suggest that *the willingness of powerful organizational members to take upon themselves the role of audience, listening to something that sounds somewhat strange, may also have influenced the hybridizing process.*

Thirdly, the theorizing of change and similar concepts has played a significant role in recent institutional literature (Barley 2008; Barley & Tolbert 1997; Greenwood et.al. 2002; Lawrence & Suddaby 2006; Lawrence et.al 2009; Phillips et.al. 2004; Suddaby & Greenwood 2005). Some theorizations specify organizational failings/problems and point to possible solutions following a script of consequentiality; others provide explanations using a script of appropriateness and identity construction (March & Olsen 1989). In the Typo3 case, I identify both types of theorization. The script of consequentiality is largely responsible for the relation between the commercial companies and their customers, whereas the script of appropriateness and identity construction was used when

the idea entered the organization and in the relation between the institutional leader and his organizational followers. I suggest that *theorizing change, following a script of appropriateness and identity construction within the organization, may influence the process in such a way that practices become hybridized*. If a script of consequentiality had been applied within the organization, it would mostly not have supported hybridizing practices since such a script defines the world in a rather one-dimensional way.

Fourthly, the concept of institutional leaders plays an important role in old institutional theory (Selznick 1957) and has lately been reintroduced into institutional analysis (Bevot 2010; Glynn & Raffaelli 2010; and Kraatz 2009; Washington et al. 2008). One of the main tasks of the institutional leader is to manage the internal consistency of the organization. The institutional leader performs his/her leadership role by telling stories that explains his identity and that of the organization, thus connecting past, present and future. But how does hybridization enter into the institutional leader's stories? A negative response to this question comes from Albert & Adams (2002: 47) who suggest that '[n]o one would want to manage a law firm as a hybrid. The result would be endless, impossible-to-resolve conflicts.' Hargrave & Van de Ven (2009:127) propose the opposite view when they suggest that 'in pluralistic settings in which multiple legitimate and competing groups seek to exercise their rights and pursue their interests, institutional actors are most likely to be successful in navigating contradictions by taking a both/and approach.' In the Typo3 organization, the institutional leader takes the latter approach. This leads me to argue that the presence of *institutional leaders in organizations, who create stories about themselves and the organization by combining a both/and approach to contradictory institutional logics, may facilitate the process of hybridization*.

4.3. Future research

I wish to suggest that studying organizational response to widespread institutional logics calls for process studies of organizations based on the ontology of becoming. To conduct such studies, we need historical process-oriented data in which we can trace more or less widespread, but always locally-founded institutional logics (material and symbolic practices). We must pay attention to the way in which these practices unfold – through interactions that negotiate the creation, maintenance, and/or change of institutional logics. This may allow us to understand if and how actors, through their interaction, reduce ambiguity and dilemmas between several institutional logics.

Often, we only have access to historical process-oriented accounts through documentary data – simply because the time frame of our research projects is too short, or because we enter the scene when something has become historical. We cannot remedy the latter problem, but we may work on the former by trying to extend the time frame of our research. Although this is probably far easier to achieve for tenured members of staff than for young researchers, it is even more relevant for the latter group as they have a longer career ahead of them. Therefore, we need co-operation between younger and senior scholars to create better opportunities for historical process-oriented analysis that examine everyday practices as they unfold within widespread institutional logics. In this respect, I suggest that scholars developing institutional theory learn from the interactionalists at the Chicago School (Barley 2008:506/10) and from recent social performance theory (Alexander 2006). Above, I draw attention to four elements that facilitate hybridization of practices in organizations. The suggestions are based on a single case study and more cases obviously need to be investigated to find out how valid these four elements are in other situations. It should also be investigated whether these four elements are in fact mutual dependent in the sense that one cannot be removed without the total effect being spoiled. Finally, there may be other elements than the four identified, which facilitate hybridization in organizational practices.

Appendix: Methods

The analysis presented in this paper constitutes a small part of a larger research project that focuses on the institutional relations between open source software and commercial software. The research project includes, *inter alia*, an analysis of open source software companies in Denmark; a study of a specific global commercial open source software, Typo3; and a study of a specific company's (Nokia) relation to open source communities.

The case

When studying institutional logics, Typo3 is a very interesting case in point. Already at birth, it was firmly embedded in a mature organizational field, but changed its practices quite quickly towards hybridization – a practice which was not common or natural within the mature organizational field in which it had so far been embedded. Thus, the Typo3 case deals with the general question of organizational change in mature institutional settings, drawing attention to hybridization as a viable organizational response in different institutional settings.

As is clearly evident when reading the description of the case, it is one that is difficult to label, and I am not sure that only one label fits. I have chosen to define the case as a non-profit organization organizing the development of a specific content management system. This is also the term used on the website describing the phenomenon. In the paper, I talk about the organization as ‘the community’ as this is the term the participants apply when talking about themselves and their organization.

Collection of data

Approximately 1- 1½ hours of *open-ended interviews* – or it might be more accurate to say conversations - were conducted with the leaders/developers in seven Danish, five German, and one Dutch Typo3 companies in 2005/2006. The interviews covered all approved Typo3 companies in Denmark (where I am located), and the companies in German and the Netherlands were found by letting the founder of the software point out companies which had been heavily involved in the community for some years. Between 2005 and 2008 I also talked several times with Kasper Skårhøj, the founder of the software Typo3, and Daniel Hinderink, who initiated the new practice in which voluntary open source developers created Typo3 together with employed commercial software developers. The open-ended conversations did not follow a specific line of questioning. However, in most cases, the interviewee was asked how he (it was always a he) got involved in

Typo3 and whether or not the developer had worked together with other people within the Typo3 community developing open source software. Who had they talked to, and what was the reaction from others to their working in commercial firms using an open source development model. I let them tell their story and followed them along the storylines they unfolded. These conversations were all transcribed and added up to 270 pages of documentation.

I also attended a three-day *Typo3 conference* in Germany in 2006 where users, developers, and commercial firms participated. I took notes and a video recording of the plenary sessions was made. Of special interest to this paper is Kasper Skårhøj's introduction to the main plenary session: a one hour-long speech in which he danced, sang, talked, told stories and tried to convince the audience that there is a real need for less selfishness and more sharing in the software development community.

Furthermore, *two surveys* were conducted – one in 2004 and another in 2006. The 2004 questionnaire was e-mailed to 5,155 users and developers of Typo3 software around the world – all connected to the use and development of the software Typo3. 1,675 (32,5 %) of the questionnaires were returned, which is a fairly high response rate compared to other e-mail surveysⁱ. The questions in this survey dealt with many different issues related to Typo3 as a community of developers. Relevant for this paper are several questions dealing with the amount of money (if any) the developers earned on selling services connected to the software, and how much they felt committed to the community. In the 2006 survey the questionnaire was e-mailed to 1.110 Typo3 firms listed on Typo3 homepages. Half of all the companies that have been approved as consultancy companies by the Typo3 Association participated in the survey; self-listed companies, however, had a relatively low response rate. Relevant for this paper are the survey questions dealing with how open/closed companies should be when it comes to knowledge-sharing within the community. I will not go into further details with the two surveys, as the data from them are only included as a minor part in the analysis of this paper. (For details about the questions, see Westenholz 2007).

Besides this I have used *documentary materials* consisting of both scientific analyses of the institutional software development as well as reports from the field written by the members themselves.

Gathering data in these different ways has been time consuming but also very helpful to the analysis. First, the different type of data *complements* each other, as they are being used to analyse different aspects of the phenomena (Bryman 2004:461). For example, some interactions involved only a few people. Here, qualitative data was useful to give a detailed description of what happened.

Other interactions involved a large amount of people, in which case quantitative data proved useful to give an overview of what happened. Furthermore, the documentary material helped me to understand the historical context of the case; and the quantitative analysis enabled me to spot the commercial actors as important participants in the community dealing with ambiguous matters. Second, the different types of data have been used *sequentially* to allow the different types to inform each other. For instance, qualitative data has been used to construct some of the questions in the survey (e.g. the arguments used to convince others of the benefits gained by combining commercialization and open source development). The quantitative data from the survey was used to decide whom to interview for the qualitative data gathering. Third, the mixed method has *expanded* the study in the sense that both qualitative and quantitative data have been used to analyse the same aspects of the phenomena. This is the case with the stories told by the performers on the different scenes (Creswell 1994:173-190).

Analysing data

The data has been structured chronologically. The analysis focuses first on the change in institutionalized material practices and the symbolic constructions of these practices developing the software, and subsequently on the interaction between the different actors.

Building on documentary historical material (e.g. Weber 2004) and interviews with founder Kasper Skårhøj and the person, who initiated the institutional change of Typo3 software, Daniel Hinderink, I describe the material practices and symbolic constructions of software development in general. The changes in material practice of Typo3 software and the symbolic construction build on analyses of the data from the 2004 and 2006 surveys (see also Westenholz 2007), as well as on the interviews with managers in Typo3 companies, Kasper Skårhøj and Daniel Hinderink. Data from Typo3 websites were also used. The material practices have been characterised according to whom and how somebody participated in the software development. The symbolic practice has been systemized according to the degree to which it was deemed ‘natural’ to follow either a GPL *copyleft* regulation, where everybody can share and change free software, or to follow the rules of a closed source model with *copyrights* and patents only allowing those who own the software to decide who can share and change it.

The interactions have been identified in direct observations, interviews and in the two surveys from 2004 and 2006 and I identified three important types of interaction, each involving the same type of participants. Within the interactions I have analysed the *stories* told by the participants by looking at

how performers framed their performance talk to the audiences. Inspired by e.g. Gabriel (2000) I have looked for the actors' way of talking about motivations, feelings, agency, fixations of characters, blame and honour, and casual relationships between elements in their stories.

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Figure 1: Organizational responses and interpretative dynamics in relation to different higher-level institutional logics

Organizational responses to different higher-level institutional logics	Organizational interpretative dynamics in relation to different higher-level institutional logics	Scholarly work on these issues
<i>Resistance</i> to new logics	New routines are mindfully understood by most members of the organization as inappropriate/not fitting in relation to other organizational routines.	Feldman 2003
<i>Replacement</i> of an old logic by a new logic	Organizational members either have a competitive or reformative pattern of value commitments combined with an enabling power relation and a capacity for action.	Greenwood & Hinings 1996
<i>Co-existence</i> of old and new logics	Organizational members have different strong identities, and they have a pluralistic approach to differences in the organization.	Reay & Hinings 2009 Westenholtz 1993
<i>Competition</i> between old and new logics	Competitive identities between constituencies. No single constituency holds complete control.	Borum & Westenholtz 1995
<i>Hybridization</i> of old and new logics	Organizational members have different identities, and they have a schizophrenic approach to different identities.	Westenholtz 1993 Boxenbaum 2006

Figure 2: Two organizational software fields (late 1990s)

	The organizational field of commercial software	The organizational field of open source software
<i>Institutional logic</i>	Institutional logic of capitalism	Institutional logic of technology
<i>Perception of software</i>	Commodity	Technical device
<i>Actors</i>	Companies Employed developers Costumers	Voluntary developers End-users
<i>Relationship between actors</i>	Market	Community
<i>Legal regulation of software ownership</i>	Copyright	Copyleft (GPS and BSD)
<i>Innovation model</i>	Closed company model	Open user model

Figure 3: Hybridization of different institutional logics within the Typo3 community anno 2006

	The Typo 3 community
<i>Institutional logic</i>	Hybridization of the institutional logics of technology and capitalism
<i>Perception of software</i>	Technical device and/or commodity
<i>Actors</i>	Companies Employed developers Voluntary developers Costumers End-users
<i>Relationship between actors</i>	Community and/or market
<i>Legal regulation of software ownership</i>	Copyleft (GPS)
<i>Innovation model</i>	Open company and user model

ⁱ The 2004 survey was conducted by Peter Gundelach and Benedikte Brinker at Copenhagen University. I am grateful to them for letting me have access to all the data.