NORDIC JOURNAL
of Science and Technology Studies

FROM MASS PRODUCTION TO MASS COLLABORATION

Institutionalized Hindrances to Social Platforms in the Workplace

by Lene Pettersen

This article addresses the importance of institutionalized practices when social media are introduced as collective platforms for the workplace. It examines why the great engagement envisioned for these tools has yet to be realized in organizational settings. The dynamics in the workplace and in distributed networks (e.g., Wikipedia, Linux) are compared and found to operate with different social structures and different practices at play. However, with the introduction of social platforms, collective and engaged actions are expected from employees. The nature of our notion of work in the workplace is colored by individual organization (employee-employer contract) and measurement of time (work hours) and money (wage) derived from a capitalist paradigm, whereas drivers at play in distributed networks are not measured in terms of quantity but quality (e.g., good work, strong reputation, high social status). The article presents a comprehensive qualitative and longitudinal case study of knowledge workers employed at a knowledge-intensive organization that operates in twenty-three countries in Europe, North Africa, and the Middle East. Many of the employees in the study explained that the company's social media platform becomes just another object to track in an already hectic workday in which individual drivers triumph over collective priorities.

Keywords: Productivity, mass collaboration, distributed networks, social enterprise media, knowledge work

Corresponding author: Lene Pettersen
Department of Strategy and Logistics, BI Norwegian Business School
Email: lene.pettersen@bi.no

Introduction

This article addresses the importance of institutionalized practices when new objects or ideas are introduced—in particular, social media's introduction as a collective platform for the workplace—and why the great engagement envisioned for these tools has yet to be realized in organizational settings. Some explanations can be found in the nature of modern work, which rests on a capitalist paradigm with profit, productivity, and individual work contracts as fundamental principles, in contrast to motivational drivers such as social status and intrinsic motivation that are at play in collaborative paradigms.

Although the term "innovation" typically evokes thoughts of new objects or products, it also refers to ideas or practices that individuals perceive as new (Rogers 2010, 11). Innovation thus concerns social changes as well: the introduction of new practices to be used by individuals within social structures. Practices—defined as shared routines of behavior, including traditions, norms, and procedures for working, thinking, acting, and using things (Whittington 2006, 619)—need to operate alongside objects within established social structures. Institutionalized practices do not follow automatically when new objects are intentionally introduced for the better. For example, the Yir Yoronts, an Australian aboriginal community, were in a technological Stone Age in the 1930s, with no knowledge of metals (Sharp 1952). The Yir Yoront community was characterized by clearly defined roles and ranks; no two people were considered equal, and they could identify subordinate and superordinate positions in any context. Trading practices were similarly based on rank, and men would travel long distances to get the stones they needed for their axes. Such trading tours were coordinated with religious festivals at which stone axes were traded with other tribes. Each axe was traced back to ancestors from the Stone Axe Cloud Iguana Clan who had originally made it and had traded it with ancestors of other clans. In short, the stone axe played a key role in the Yir Yoront community because the axe reinforced the Yir Yoront system of beliefs, kinship, rank, social status, and age and gender differences. When missionaries entered the Yir Yoront community, they brought steel axes for those who promised to be good Christians. Suddenly, every Yir Yoront could access an object that played a key role in the community's actions and social structure. One year later, that community had disappeared. Unlike the stone axe, the steel axe did not interplay with the key elements for the Yir Yoronts. Furthermore, there is no guarantee that introducing more of something will provide more of the same effect. This was the case with Norwegian television. When Norway had only one television channel, it served as a unifying medium for Norwegians. However, when multiple channels were introduced in the 1980s, the opposite effect happened: multiple television channels divided the Norwegians (Eriksen 2001b). Similarly, Microsoft's MSN did not succeed in Japan as it had elsewhere because the chat function did not align with Japanese conversation norms (Kirah 2009). Because the act of not replying when addressed by others is perceived as impolite in Japan, MSN chat conversations could continue indefinitely. MSN's transparent logged-in feature was therefore changed to enable users to reply to others when the timing was better. As a result of this later innovation, MSN became more successful in Japan. These examples illustrate the important role that practices (rules, values, and norms) in social structures play when new objects or ideas are introduced.

Organizations seek collaborative logics in the workplace

Organizations today seek to copy the potential that lies in collaborative models in which individuals willingly contribute content without traditional organizational structures (Shirky 2009). The collaborative tendencies observed in volunteer organizations at which individuals work for free are sought copied in the workplace. Examples of such organizations are Linux, where programmers create open source code in their spare time; Wikipedia, where Wikipedians are volunteer contributors; EteRNA, where online gamers help reveal new principles for designing ribonucleic acid (RNA)-based switches and nanomachines to seek and eventually control living cells and disease-causing viruses; and Mindboards, where Lego enthusiasts post source and binaries for many different LEGO MINDSTORMS tools. Cook (2008) pointed to this mass collaboration tendency, previously described in *Wikinomics* by Tapscott and Williams (2008), which illustrates how technologies in the twenty-first century enable masses of people to crowdsource and co-create. Cook argued that new social platforms would change the future of work. Enterprise social media (Leonardi, Huysman, and Steinfield 2013), enterprise 2.0 (McAfee 2009), and social intranets all refer to technologies with Web 2.0 features such as interactivity, social networking, group collaboration, co-creation, blogs, tags, personal profiles, and file sharing. The common shorthand description of social enterprise platforms is often "Facebook inside your company", because the software mimics some of the core functions found on social network sites (e.g., Facebook) while adding specific features to use within a business (e.g., share an idea, vote for an idea) (Carr 2012). Social media platforms have been introduced in the workplace not only to foster the collaborative tendency observed in distributed networks and social sites, but also to create productive and advantageous behavior among employees (Dignan 2008). Social platforms are predicted to increase employee productivity by twenty to twenty-five percent by moving time spent managing email and searching internally for information and competence to a collective platform, thus freeing up time for other tasks (Chui et al. 2012, 11).

However, most organizations fail to make employees use these social platforms. The massive engagement that was predicted to revolutionize the modern workplace has yet to occur (Chen 2011). One typical explanation is that "old habits die hard"; employees prefer established technologies they already use to new ones (Chen 2011). Even so, organizations have been advised to strive to increase employee engagement so they can take advantage of social platforms (Mann 2013). Different advice on how to spark such engagement has been set forth: for example, managers must be role models, supervisors should lessen their control, and bottom-up processes are necessary to empower employees (McAfee 2009, Cook 2008).

This article takes a different stance by studying how the nature of work is part of the institutionalized practices of organizations' social structures. I argue that the work contract and the calculation of work in time and money are important hindrances to creating a collaborative workplace. New collaborative models rely on logic different from that of capitalism, which is built on competitive principles aimed at profit. The two models or contexts are different. Furthermore, it is typically taken for granted that the user engagement observed in distributed networks is beneficial *per se* for the organization and that the goal should be to create mass collaboration among employees within the organization. This is problematic in at least two ways. First, a key tendency on the Internet and in the external social media landscape is the 90-9-1 rule, which states that most people use the Internet only to read, a few participate regularly, and only a small segment is composed of active participants (Nielsen 2006). The potential pool of contributors is thus a lot larger than in the organization. Second, knowledge professionals employed in an organization have specialized domains and skills, and others with whom they share work characteristics do not necessarily work in the same organization. Moreover, the networked economy, where the benefit of cooperation and collaboration is acknowledged (Krokan 2013, Beniger 1986, Tapscott and Williams 2008), has motivational drivers other than economic exchange alone. The organizational world is much smaller than the Internet, and the rules are different (Levy 2009). Work structures and communication processes also differ between employees in corporate settings and peers in web communities (Schneckenberg 2009).

Furthermore, as the Yir Yoront, MSN, and Norwegian television examples illustrated, the collaborative models in distributed networks rely on logics different from those in the workplace. With this backdrop in mind, I argue that we need to return to the very notion of what work is—knowledge work, in particular—to obtain a deeper understanding of why copying and pasting a Wikipedia model into the workplace is problematic.

When we seek to explain social change, or the lack thereof, we need to start with the individual—with agency (Lauring 2013). The interplay between agency and social structure is the heart of structuration theory (Giddens 1984). According to the theory, individual actions occur within the contexts of existing social structures, governed by norms and rules distinct from those of other social structures. Social structure consists of the rules (implicit or explicit formulas for action) and the resources (what agents themselves bring into this action, such as knowledge and abilities) that both enable and restrict individuals' actions (Giddens 1979, 69). This is labeled the duality of structure. The duality of structure confirms established practices and at the same time is open to changes because individuals are knowledgeable. The interplay between an individual's actions and the social structure is a centrifugal process sustained and modified by human action, a process that enables adjustment and change in other parts of the system. Agency is closely related to other social systems (Giddens 1984) such as a hierarchical authority structure, a cooperative structure within a participative workgroup, or the normative structure of a professional community (Orlikowski 2000). More specifically, I address the following questions in this article: (1) What are the institutionalized practices for work—in particular, knowledge work? (2) How do these practices correspond to the motivational logic at play in distributed networks (e.g., Wikipedia, Linux)?

Work is the process of completing tasks and is most often measured by the clock (Kjaerulff 2010). It is conducted in terms of economic exchange between employee and employer (Giddens, Duneier, and Appelbaum 2012). The term "institutionalized" refers to the solidification or ritualization of social life through the repetition of actions that become practices that are taken for granted (Eriksen 2001a). Organizations are dynamic systems consisting of individuals' actions (Davis and Scott 2007, Weick 2001). Knowledge-intensive organizations employ knowledge workers whose work largely consists of non-standard problem-solving as well as the production of knowledge, services, products, and activities that require a high level of education, special skills, and creativity (Løwendahl 2005, Kuvaas 2006). As Davenport (2005) put it, knowledge workers think for a living.

In the following section, I begin by presenting work from a historical point of view to more fully grasp several fundamental principles in our understanding of the notion of work. Then, I present the case study from which this article draws its arguments, followed by a presentation of several key findings relevant to the research questions asked in this article. I then discuss and compare the two organizational models (the workplace and the distributed network). I end the article with a discussion of the study limitations and a call for further research.

Work from a historical point of view

Before the rise of modernity, the economy was closely intertwined with the social relations of humans (Polanyi 2001). With the Industrial Revolution and the increased production of goods, independent craftsmen became wage workers. This shift allowed capitalism to fully blossom (Weber 1998). Capitalism is an economic system in which capital assets are privately owned and goods and services are produced for profit in a market economy (Eriksen 2001a, Weber 1998). The organization or the enterprise is a player in a competitive marketplace based on the logic of supply and demand. Such external elements play a key role in how an organization's resources are managed and organized internally (Penrose 2009).

Weber (1971) used the bureaucratic model, with its characteristic hierarchy and clear division of labor, as an example of the most efficient and rational way to top-down organize human activity. In this model, systematic processes and organized hierarchies are necessary to maintain order, maximize efficiency, and eliminate favoritism. Organizational models with different degrees of decentralization emerged in parallel with mass production (Chandler 2007), often in terms of Henry Ford's assembly-line thinking and Taylor's classical experiments on employee motivation to increase efficiency and productivity. Parallel to industrialization, work was controlled and measured by the time spent performing work, rewarded in terms of economic incentives, and supervised by management, with punch clocks registering and controlling employees' work time. Work was, and still is, a formal contract between the employee (the owner of the work capacity) and the employer (the owner of the production tools). The relationship is based on an economic exchange: work is a commodity exchanged for an economic incentive, namely salary. The transaction between work and capital relies on a foundation of manpower (Sørhaug 2004).

However, Western society has undergone various changes over the past hundred years, and fundamental institutional changes have been taking place (Castells 1996, Giddens 1990). For example, the service sector now generates more wealth than the manufacturing sector of the economy (Dekas et al. 2013). In the knowledge economy, knowledge workers themselves have become the value (Sørhaug 2004). Because of the Internet, globalization, and increasingly improved information systems, the world has become smaller and in many senses more connected (Drucker 1992). In the past, work was less differentiated; therefore, it was easier to know what people did simply because there was less to know (Orr 1996, Fayard and Henderson 2002). Today, work is highly complex and invisible (Suchman 1995, Orr 1996). With the division of labor, modern workers have become increasingly specialized (Huber 2010, Schneckenberg 2009), which raises the question of how many other colleagues in the same organization it would be relevant to collaborate with or assist via a collective internal social media platform in the first place.

We are currently caught between different societal paradigms: one based on a top-down, market-based, competition-oriented logic and another based more on democratizing principles, mass collaboration, and networked logics. Individuals participate in the development of products and are responsible for much innovation (Von Hippel 2005), and they collaborate through distributed communities without economic motivation. Collaboration is a key tendency of our time, yet the concept of work is still built on traditional and individual principles. Employee work is still a formalized contract between the employee and the employer, and work is still measured by the clock and rewarded with money. Key performance indicators are established to measure individual performance, and the punch clock is still in use (Dahl 2013), despite recent studies showing that increased innovation occurs when employees are empowered to choose how to use their time (Dekas et al. 2013), and despite the fact that we have moved from working on time to online (Sørhaug 2001). Control systems are suggested by agency theory as a way to minimize opportunism and create the most efficient contract between a principal or employer and the agent or employee (Eisenhardt 1989). Similarly, transaction cost theory sees individuals and firms as rational, from which arises the concept of opportunism: individuals act to maximize self-interests (Williamson 1985). But when we look at engagement and individuals' contributions in distributed networks, the arguments of opportunism fall short. The nature of work has changed (Dekas et al. 2013), but the models for doing work (work contract, time, money) have not.

The case study

The organization is a French listed medium-to-large multinational, knowledge-intensive organization with approximately five thousand consultants, with entities in more than twenty countries in Europe, the Middle East, and North Africa. In this study, it is anonymized as Tech Business Company (TBC). TBC operates where information communication technology and business intersect and offers services spanning consultancy and technology with a shared service portfolio. Having a shared service portfolio implies that the different entities have specialized fields and domains of expertise that would be relevant for other TBC professionals working in the other entities. For example, employees in Denmark working with cloud computing topics, or the process of facilitating a large project for the health industry, should be relevant for employees who are working on similar projects but are located in different entities. Thus, a company internal social platform could enable employees to reach out to colleagues at other TBC entities who are working on similar topics.

The sample in this study is composed of consultants who provide the daily services that TBC capitalizes on. Consultants provide

professional or expert advice based on their specialized field of expertise and domain of competences. A typical work design for consultants is a billable-hours model; the client pays for the number of hours the consultant has spent working on client matters (Løwendahl 2005). With this work design, a flexible work context typically follows: the consultant is most often located at the client's site when doing client work. A common pay model for consultants is a mix of fixed pay and a bonus based on the degree of billable hours the consultant has produced.

Implementation strategy

TBC introduced a global social enterprise platform (Jive Business Software version 4.5.2) in 2010–2011 as a replacement for local intranets and other local initiatives (e.g., Yammer). Jive Business Software is one of the best-known players in social enterprise platforms and was ranked as a leader in the business field by Gartner (Carr 2012). TBC's overall goal for introducing a social enterprise platform was to better utilize the knowledge capital of TBC professionals to "build professional networks, develop competence by following others more skilled, finding out what others are doing and not reinventing the wheel, having things you're working on easy to find and share, easily work with colleagues in other business units" (from TBC's implementation strategy).

The local entities introduced the platform differently. Although some entities arranged courses and training, others sent only log-in and password information to TBC professionals via email. However, several employees reported that they did not have the time to participate in their entity-arranged courses. The analysis did not reveal a consistent pattern between course participation and degree of social platform use. The consultants were encouraged to use the enterprise media platform, but no formal guidelines or requirements were set by the management for platform use. All other existing computer systems (e.g., email, document management systems) were fully available to the entities after the enterprise media platform was launched.

The routines for becoming a platform member were via the IT department in the parent company in France. The IT department created the employee's user profile and sent the log-in and password information to the employee via email. This sign-up process is different from that of most social networking sites (e.g., Yammer, LinkedIn, Facebook) in which the user is guided through an online process and offered relevant suggestions by the platform (e.g., individuals and groups to follow, sign privacy consent).

The top management in the parent company actively used the social platform and wrote blog posts in which they shared strategic company updates and insights into why the platform was introduced. Community managers from the parent company were actively present on the platform, providing help and tips on how employees could get the most out of the tool. Human resources employees or others at the local entities had, to varying degrees, a dedicated role to serve as community hosts for their local entity. These individuals formed a "community-manager network" for sharing insights and advice.

Research design

Because the overall goal is an in-depth understanding of how the nature of work corresponds with the organization's expectations of introducing a social enterprise media platform, I chose a qualitative methodological approach with the following research design:

Open-ended, in-depth interviews[1] with twenty-seven knowledge professionals from the UK, Denmark, Norway, and Morocco were conducted in 2011. Eight of the participants (from Norway and Morocco) were interviewed again in 2012 to control for time.

Ethnographic field studies (in Norway and Morocco, three weeks each) and participatory observations (in Denmark and the UK) were conducted in 2011. The field studies in Norway and Morocco were repeated in 2012 to see if there had been any changes in employees' platform use over time.

Key informant methodology was used as a tool for obtaining information over time from individuals who knew the community well (Pelto and Pelto 1978).

Social network data for the twenty-seven participants were gathered at the end of the interview. The participants listed the colleagues they reach out to and who approaches them when they needed work-related assistance. These offline network data were coded in the network tool UCInet, and then analyzed and compared with their online interactions in the organization's social enterprise platform (particularly who they followed, which groups they were members of, and who the other group members were).

To control for employees who did not use the enterprise platform due to low digital competence, a self-report form based on the technology acceptance model (TAM) criteria (Chung et al. 2010) was handed out at the beginning of the interview. Twenty-four of the twenty-seven participants scored high on digital competence.

The organization's strategy documents, implementation strategy, and social enterprise platform were thoroughly analyzed.

I entered TBC before the platform was launched in 2010–2011 (a pilot was run in Norway in 2010). Because I had a password and log-in details, I also had access to the platform when I was not in the field settings. Thus, I followed the organization closely over three years (2010–2013). I will now present some of the key findings that are relevant to the two research questions asked in this article.

[1] Marika Lüders did 9 of these 27 interviews. I interviewed employees from all the entities included in this study.

Use of the social enterprise platform

Since individuals' use of technology, and not technology itself, can make social change (Orlikowski 1992), the logical first step would be that employees take the social enterprise platform into use. In this study, the social platform was used very little. Since twenty-four of the twenty-seven participants scored high on digital competence, the low use is likely not related to a lack of digital competence. Out of the twenty-seven participants, fewer than half used the platform regularly, and only half of such use was done in a knowledge-sharing manner (i.e., active participants who contributed content, such as by writing blog posts, commenting on others' posts or questions, and uploading documents). In the follow-up studies one year later, during which eight of the participants were re-interviewed, six of the eight used the platform substantially less than they had the year before; two used it more. The two who used it more used the platform as a closed space to share documents that their team worked on. Many of the employees who contribute to the social enterprise platform are outgoing and constantly seek to extend their professional networks. Not all perceive personal brand management as a motivation for participation. Some perceive knowledge as a collective asset, not something that belongs exclusively to individual employees, while others contribute for altruistic reasons (Lüders 2013).

Interestingly, when employees were asked why they did not use the platform, many listed several of the same reasons that researchers on knowledge management systems in the 1980s and 1990s found, particularly lack of time and relevance for work (Orlikowski 1992, Bechina et al. 2012, Fu and Lee 2005, Bock et al. 2005, Ardichvili, Page, and Wentling 2003, Hoogenboom et al. 2007).

Work is an individual contract and measured in money

Employees in this study work in a typical billable-hour structure, although there are some variations. This structure implies that employees address several overlapping social structures, which many considered challenging. As one Norwegian consultant explained, "Consultants need to be schizophrenic. This means that, on one side, you have to be full of empathy and be on your client's side, and on the other, keep your integrity." The consultant said that although this was a typical dimension of working as a consultant, it was frustrating:

> I have a work contract with my TBC entity, but when I'm working at the client's site, I experience the same schizophrenic situation in which I'm actually at the client's site, and everything I do and the value I create is for the client. But the billing of hours is in the other side [the TBC entity].

This is a situation that many of the consultants are not very comfortable with "I have a contract with [the TBC entity], but when I'm at the customer's site, I feel that I belong to the customer" as the Norwegian consultant put it. All employees' work hours are sold to customers as well as rewarded and managed individually. The CV is an important sales document for the manager in his or her process of signing contracts with clients, but the CV is also important for the employee, since it is a symbol of his or her skills that can be sold on an hourly basis. Being up to date within one's specialized field is thus important to document:

> The particular course I would like to go to is just basically the latest version of the body of knowledge that I'm experiencing, so it's something that would be good for my CV; it also looks good when [TBC] is selling me to other organizations. (Man, 40+, UK)

The employee receives work assignments from and reports to his or her manager. Thus, a central part of employees' work design is structured around the contract between the employee and the manager. The manager plays a facilitative role between the employee and the customer. Work skills are sold to the customer on a quantitative basis of time and price. The time and price model is mirrored in how the employees' work is organized: billable, produced hours, and pay. Economic incentives trump keeping up to date, sharing knowledge, and assisting coworkers in need of help, as the following interview reveals:

> Yeah, we have appraisals every year, and it's [training courses] on the to-do list for my appraisal. But we are incentivized to be fully utilized: if we get one hundred percent utilization, we get a nice bonus at the end of the year. And every day you work less than that, it counts off your bonus. And training isn't a bonus, so there's less incentive to do training because it will count against you in a way. And it's something I want to do, but it's not as high a priority as maximizing my bonus. If you don't reach certain targets, you get no bonus at all. [The number of billable hours] is like minimum sixty or seventy percent a month. Last year, I got eighty percent and got a nice bonus for that, and I'm trying to do even better this year. … But it means that you're less likely to choose to go on a training course … Because I think people should be encouraged to go on training courses. It's not a discouragement, but it's not as strong an encouragement as the bonus. (Man, 40+, UK)

Ideally, the collective social platform should be experienced as a shared workspace where employees can help each other. Instead, when an employee in the UK was asked whether he believed it was acceptable to spend time using the platform, the work time priority seemed clear: "No, at least not if you could have spent that hour earning money instead." On hectic workdays, individual drivers triumph over collective priorities for many of the employees.

Work is structured by the clock

According to Jemielniak (2009), time is used as a symbolic universal currency and is the key to understanding several knowledge work phenomena. For instance, employers' reign over time is an important driver for software engineers going independent (Jemielniak 2009). In the future, work is expected to shift from permanent employment toward contract-based, independent, and freelance employment (Dekas et al. 2013, Donkin 2009). In this study, lack of time was reported as a constant issue. Many said that the social platform is just another object to track amid in an already hectic workday. Some did not regard the platform as a tool that could be of any help. Work is a calculation of minimum time spent and maximum output produced, as one interviewee described:

> But again, [the social enterprise platform is] one of those things that's not part of what we're paid to do, and so I'll just focus on what I need to get my work done. If we could be convinced that it was gonna enable us to work even ten percent more efficiently, maybe we'd sort of invest some time in it and get it set up. (Man, 50+, UK)

In a social structure where time is a scarce resource and where work is organized and measured by the clock, many perceived using the enterprise platform for knowledge-sharing processes (e.g., helping others who call out for help or sharing insights in blog posts) as time-consuming. Established technologies (e.g., email, telephone, file server) were preferred over the social platform. As one male employee in Norway explained, "A lot of my work is, if you like, driven by emails; I need to stay in touch and know that I haven't missed something important." Established technologies are the most efficient way to support employees' completion of work tasks in the least amount of time possible. As one employee indicated, directing a question to someone who the employee knows will have the answer or who will guide the employee to someone relevant is more efficient than asking the question in the open platform, where the question needs a fuller description.

The employees also reported that they often work outside office hours. As a female employee from Morocco explained, "We work even on the weekend, we exchange emails on weekends, and we use the phone daily." Technology enables work processes to be flexible (Kjaerulff 2010). Smart technology and email synchronized with employees' smartphones have made it possible for many consultants to work regardless of geographic or physical place. The virtual office is everywhere, blurring distinctions between work time and leisure time (Mazmanian, Orlikowski, and Yates 2013, Orlikowski and Scott 2008), and people often do more work than what is stipulated in their work contract. For example, a recent study found that respondents worked sixty-seven percent more than the average forty-three-hour workweek, according to the U.S. Bureau of Labor Statistics, and forty-four percent more than the approximately fifty-hour workweek, according to the Center for Creative Leadership World Leadership Survey Report (Deal 2013). New technologies have challenged our established notion of work.

Work is related to other individuals, local contexts, and computer systems

Many of the TBC professionals perceived the social enterprise platform as time-consuming and not relevant to their own work. Consultants explained that they chose to spend their work hours on matters that benefit their own work. Interestingly, the analysis revealed that TBC professionals work in many different social contexts such as at clients' sites, at their main TBC location, from home during the workday, and after work hours. Furthermore, TBC consultants sit physically close to others who are important for the work regardless of whether these others are TBC employees or not. Having individuals with a shared and relevant specialization nearby enabled employees to get fast replies in real time on questions that cropped up during the workday. Working close to others was not only useful and efficient, but also social. Through face-to-face conversations, the employees shared insights and helped each other with common work-related issues (e.g., a shared project). Thus, the billable-hour structure seems to differentiate between collaborating with coworkers or team members with a shared goal (e.g., finalize a project) and assisting others who are not part of their everyday work (e.g., sharing content or insights with others in the enterprise platform, helping others who requested assistance in the enterprise platform). Such everyday offline work interactions were not considered "knowledge-sharing" by the consultants because these interactions were essential to work. Complex knowledge work requires a high degree of face-to-face interactions and conversations (Løwendahl 2005, Brinkley 2009, Orr 1996).

When consultants work on client projects over long periods, they typically receive a client email account and a laptop with relevant client systems and applications for their work. Two young engineers from Morocco, for example, were booked to their telecom client from their first day at TBC. They were hired by the entity solely because the client required radio engineers. The only time they entered the TBC office was during the job interview and the signing of their work contracts. At their telecom client's site, the engineers worked with client-related tasks, worked on the client's computer systems, used the client's internal communication platform to look for the necessary technical information, and worked with other radio engineers employed at the telecom client. The engineers explained that they were more easily reached via their client email than the TBC email, since they used it securely during their workday inside the client's firewall. Thus, the computer systems that the consultants use for work are often tied to the

local context, regardless of whether they are at the TBC office or at the client's site. For many consultants, the social enterprise platform is an isolated island outside their workday and is therefore a less relevant platform for the consultant's work purposes. To work most efficiently, the consultants use different and relevant computer systems. To make work processes as effective as possible, software or technologies that save time and enhance productivity are chosen over platforms that are time-consuming, as many perceived the enterprise social media platform to be.

I will now discuss the main differences between the practices at play in the organization and in distributed networks.

Distributed networks: social status, free will, and intrinsic motivation

The findings show a tendency for individual drivers and work practices to triumph over collective priorities. Employees approach other individuals and computer systems that will help them get their own work done. How, then, can it be that individuals contribute content to distributed networks (e.g., Wikipedia) in their spare time without getting economic incentives in return? There are two main differences between the workplace and distributed networks: paychecks and traditional hierarchies.

Wikipedians do not receive a paycheck; their incentive structure is related to the cycle of social status credits in the community (Forte and Bruckman 2005). First, the credits are fundamentally linked to an individual's ability to act in the community and effect change by asserting claims. Second, a reward mechanism marks one's past contributions. The notion of credits exists as a reward, and credibility empowers individuals in the community. Although none of the articles in Wikipedia are signed, most have been edited numerous times by numerous people, and explicit attribution seems impossible. However, Wikipedians recognize one another and often claim ownership of articles. As one Wikipedian explained,

> In some ways you get recognized, you get some respect, recognition from your fellow … here's somebody who knows his stuff, who writes good articles and so on and so forth, and you feel happy when one of them puts a posting on your talk page. (Forte and Bruckman 2005, 3)

Another study (Nov 2007) of motivational factors in Wikipedia found that the most commonly cited motives were fun (enjoying the activity), ideology (expressing support for the perceived underlying ideology of the activity, such as the belief that knowledge should be free), and values (expressing values connected with altruism and helping others). Kelty (2008) found that although the IT programmers he studied spent much of their time downloading, hacking, testing, installing, coding, discussing, and blogging about features of interest to their community, they did not know each other in person. Nevertheless, they had a particular form of social imaginary of their own association. The motivational logic of distributed communities is similar to that of a social group whose members share common values, norms, and language. Group members who defy the common rules are sanctioned by other group members. Social norms play a significant role in violations on Wikipedia (e.g., deleting others' contributions) (Piskorski and Gorbatai 2013).

What distinguishes an organization from a market is the hierarchy (Andersen 2009). However, Wikipedia and other distributed networks also have hierarchies, in which authority is held by individuals who have administrative roles in the community. Because administrators are voted in, having high credibility in the community is important. Administrative powers are held by some, and the process of gaining administrative status is open to anyone who can provide a compelling image of himself or herself. This brings associations to the "big man" phenomenon in Melanesia and Polynesia (Sahlins 1963). A big man is a highly influential individual in a tribe but does not have formal tribal or other authority. Recognition is gained through skilled persuasion and wisdom. Thus, leadership is not ascribed, but gained through action and competition based on personal status. These hierarchies are different from the one we know from organizations in the working world.

Ostrom (1990), in her work on how to deal with the tragedy of the commons, suggested several main principles to make collaboration beneficial to individuals. An example would be the water on Madeira, a limited resource that is shared by farmers through levadas or water canals. Each farmer waters his or her crop within a specific amount of time before access to the water is blocked by a rock and directed to the next farmer. The levada is kept clean of leaves and sticks by levada hosts who also manage the water direction. Thus, the hosts play an important role as facilitators of a shared resource that is of equal importance for all farmers. In other words, it is beneficial for all the farmers to collaborate and share. Ostrom (1990) highlighted the importance of collective choice, participation in decision-making processes, and collective sanctions on those who violate the community rules. These principles are key drivers in Wikipedia. However, TBC had community managers that had dedicated roles to nurture employee participation. Yet, while it is beneficial for the Madeira farmers to collaborate because of the shared resource they all need, the enterprise media platform does not necessarily provide benefits for the employees' work. On the contrary, the platform was considered time-consuming. Others close to the employee or others who the employee knew could help were approached rather than relaying these questions or needs via a collective enterprise media platform.

Discussion and conclusion

The abovementioned findings have provided insights into the research questions posed in this article: What are the institutionalized practices for work—in particular, knowledge work? How do these practices correspond to the motivational logic at play in distributed networks? First, the nature of our notion of work is colored by individual organization and measurement of time and money. However, drivers at play in distributed networks are not measured in terms of quantity but quality (e.g., good work, strong reputation, high social status). Thus, individuals in distributed networks and in organizations have very different reasons and motives for their actions. Participation at Wikipedia is done voluntarily during free time, with others who share a passion for knowledge as free, and where one's social status is valued by other community members. Intrinsic motivation plays a key role for participation in distributed networks. Employees in the workplace, on the other hand, depend on economic exchange to make a living, and the work contract is based on profit and productivity—institutionalized practices that are characteristic of capitalistic paradigms derived from industrialization. Our dependency on economic incentives for living leads to inequality in authority and power distribution between the employee and the employer and thus to hierarchical differences. Whereas hierarchies in the workplace operate to control and manage the organizations' internal resources with the aim of sparking productivity and profit, hierarchies in distributed networks are related to social status, and social norms play a significant role in the distributed community.

Second, employees use technologies that make their work more efficient. Calling or emailing others who can provide fast answers is the most effective way of getting complex knowledge work done. Sharing knowledge and assisting others via the enterprise platform is considered by the knowledge professionals as a time-consuming process. Help is provided much faster by directly asking others face to face or via telephone and email than by asking questions on company internal collective platforms. Employees are knowledgeable agents (Giddens 1984); they choose problem-solving actions that get the maximum work done in the minimum amount of time.

Thus, agency in the workplace and agency in distributed networks are different, with different practices at play. Yet, collective and engaging actions are expected from employees with the introduction of social platforms. This expectation appears to be a logical contradiction. To return to the Yir Yoronts as a metaphor, we cannot introduce the steel axe to employees and expect them to play by the stone axe's symbolic meanings and rules when the social structure is fundamentally different.

To sum up, social media platforms have been introduced to today's workplace to foster the same collaborative tendency found in distributed networks such as Linux and Wikipedia, to create productive and advantageous behavior among employees (Dignan 2008), and to increase productivity (Chen 2011). However, most organizations fail to make employees use social enterprise platforms—at least in the expected active, knowledge-sharing manner—and the expected success of these media platforms is still pending (Chen 2011). One explanation for this unrealized goal is that social platforms do not correspond to how knowledge work is organized, measured, and rewarded in practice. We must reexamine whether mass collaboration in the workplace is a realistic goal, and whether it should be a goal in the first place. First, with the division of labor, modern workers have become increasingly specialized. Knowledge workers have different specializations (e.g., cloud computing, telecommunication, programming, project management); thus, they belong to different communities or "tribes," often across company borders. Organizations do not have the same mass of people as the Internet has (Levy 2009), which is a critical factor for mass collaboration. Second, although the twenty-first century has been characterized as networked and knowledge-intensive, in most organizations and enterprises, the notion of work is still organized on principles that have evolved alongside the process of industrialization and mass production: production of the maximum number of standardized products within the minimum amount of time. Fundamental principles (e.g., work contract, clock time, economic rewards) are practices born in a capitalist paradigm. The practices at play in the workplace and in distributed networks differ in several ways, and the findings in this study suggest that the goal of creating a mass collaborative workplace by introducing enterprise media platforms in the organization could prove difficult.

This study is not without limitations. The findings presented here are from a multinational consultancy company characterized by a billable-hour structure that organized the employees' daily work. Researchers should further study organizations with different organizational structures, organizations that nurture intrinsic motivation as important drivers for working, and organizations where employees can choose how to use their work time (e.g., Google).

References

Andersen, J A. 2009. *Organisasjonsteori: Fra argument og motargument til kunnskap*. Oslo, Norway: Universitetsforlaget.

Ardichvili, A, V Page, and T Wentling. 2003. Motivation and barriers to participation in virtual knowledge-sharing communities of practice. *Journal of knowledge management* 7 (1):64-77.

Bechina, A., A. Arntzen, and V. Ribiere. 2012. Is the Emergence of Social Software a Source of Knowledge Management Revival? In E. Gurteen (ed.) *Leading Issues in Social Knowledge Management*. UK: Academic Publishing International.

Beniger, J R. 1986. *The control revolution: Technological and economic origins of the information society*: Harvard University Press.

Bock, G-W, R W Zmud, Y-G Kim, and J-N Lee. 2005. Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS quarterly* 29 (1):87-111.

Brinkley, Fauth, Mahdon and Theodoropoulou. 2009. *Knowledge Workers and Knowledge Work. A Knowledge Economy Programme Report*. edited by The Work Foundation. UK: The Work Foundation.

Carr, D F. 2012. Enterprise Social Networks: A Guided Tour. *Informationweek*. Accessed May 20th.

Castells, M. 1996. *The rise of the network society (Vol. 1)*. Malden, MA: Blackwell.

Chandler, A D. 2007. *Strategy and structure: Chapters in the history of the American industrial enterprise*. MIT Press Books 1.

Chen, P. 2011. E*nterprise 2.0: Why All Business Software Must Go Social*. edited by Forbes: Forbes.

Chui, M, J Manyika, Js Bughin, R Dobbs, C Roxburgh, H Sarrazin, G Sands, and M Westergren. 2012. *The social economy: Unlocking value and productivity through social technologies*. McKinsey Global Institute.

Chung, J E, N Park, H Wang, J Fulk, and M McLaughlin. 2010. Age differences in perceptions of online community participation among non-users: An extension of the Technology Acceptance Model. *Computers in Human Behavior* 26 (6):1674-1684.

Cook, N. 2008. *Enterprise 2. 0: How Social Software Will Change the Future of Work*. UK: Gower Publishing, Ltd.

Dahl, M-B 2013. Uret er ikke gått ut på dato. *Bergens Tiende*, April 21st 2013.

Davenport, T H. 2005. *Thinking for a living: how to get better performances and results from knowledge workers*: Harvard Business Press.

Davis, G. F., and R. W. Scott. 2007. *Organizations and Organizing: Rational, Natural and Open Systems Perspectives*: Pearson Education, Inc Upper Saddle River, NJ.

Deal, J. J. 2013. *Always on, never done? Don't blame the smart phone*. edited by Center for Creative Leadership.

Dekas, K, T Bauer, B Welle, J Kurkoski, and S Sullivan. 2013. Organizational Citizenship Behavior, Version 2.0: A Review and Qualitative Investigation of OCBs for Knowledge Workers at Google. *The Academy of Management Perspectives* 27 (3):219-237.

Dignan, L. 2008. Forrester: Social networking will be biggest enterprise 2.0 priority by 2013; Smaller businesses reticent. *zdnet* Accessed May 2014.

Donkin, R. 2009. *The future of work*. London: Palgrave Macmillan.

Drucker, P F. 1992. T*he age of discontinuity: Guidelines to our changing society*. US: Transaction Books.

Eisenhardt, K M. 1989. Agency theory: An assessment and review. *Academy of management review* 14 (1):57-74.

Eriksen, T H. 2001a. *Small places, large issues*. London, UK.: Pluto.

Eriksen, T H. 2001b. *Tyranny of the moment: Fast and slow time in the information age:* Pluto Press.

Fayard, A-L, and A Henderson. 2002. *Diffuse Collaboration: Copying as a Collective Activity*. France: Insead.

Forte, A and Bruckman. 2005. Why do people write for Wikipedia? Incentives to contribute to open–content publishing. *Proceedings of GROUP* 5:6-9.

Fu, S, and M Lee. 2005. IT Based Knowledge Sharing and Organizational Trust: The Development and Initial Test of a Comprehensive Model. *ECIC*, Regensburg, Germany.

Giddens, A. 1979. Central problems in social theory: action, structure and contradictions, in *Social Analysis*. 241: University of California Pr.

Giddens, A. 1984. *The constitution of society: introduction of the theory of structuration*: Univ of California Press.

Giddens, A. 1990. *The Consequences of Modernity*. Cambridge Polity.

Giddens, A, M Duneier, and R P Appelbaum. 2012. *Introduction to sociology*: WW Norton & Company.

Hoogenboom, T, M Kloos, W Bouman, and R Jansen. 2007. Sociality and learning in social software. *International Journal of Knowledge and Learning* 3 (4):501-514.

Huber, G.P. 2010. Organizations: Theory, Design, Future. In Zedeck (ed.) *APA Handbook of Industrial and Organizational Psychology*. US: American Psychological Association.

Jemielniak, D. 2009. Time as symbolic currency in knowledge work. *Information and Organization* 19 (4):277-293.

Kelty, C M. 2008. *Two bits: The cultural significance of free software:* Duke University Press.

Kirah, A. 2009. From observation to co-creation. The Antronett Conference, Oslo, October, 2009.

Kjaerulff, J. 2010. *Internet and change: an anthropology of knowledge and flexible work*, Intervention Press. UK: Left Coast Press.

Krokan, A. 2013. *Nettverksøkonomi - digitale tjenester og sosiale mediers økonomi*. Oslo: Cappelen Damm.

Kuvaas, B. 2006. Work performance, affective commitment, and work motivation: the roles of pay administration and pay level. *Journal of Organizational Behavior* 27 (3):365-385.

Lauring, J. 2013. Understanding culture. Lecture as part of the PhD course 'Theories of Organizing' held at at Aarhus University, Denmark, 27th-31st of May 2013.

Leonardi, P M, M Huysman, and C Steinfield. 2013. Enterprise Social Media: Definition, History, and Prospects for the Study of Social Technologies in Organizations. *Journal of Computer-Mediated Communication* 19 (1):1-19.

Levy, M. 2009. WEB 2.0 implications on knowledge management. *Journal of knowledge management* 13 (1):120-134.

Lüders, M. 2013. Networking and notworking in social intranets: User archetypes and participatory divides. *First Monday* 18(8).

Løwendahl, B R. 2005. *Strategic Management of Professional Service Firms*. Denmark: Copenhagen Business School Press.

Mann, J. 2013. *Hype Cycle for Social Software,* 2013. edited by Gartner.

Mazmanian, M, W J Orlikowski, and JA Yates. 2013. The autonomy paradox: The implications of mobile email devices for knowledge professionals. *Organization Science* 24 (5):1337-1357.

McAfee, A. 2009. *Enterprise 2.0: New collaborative tools for your organization's toughest challenges:* Harvard Business Press.

Nielsen, J. 2006. *Participation Inequality: Encouraging More Users to Contribute*. Nielsen Norman Group.

Nov, O. 2007. What motivates wikipedians? *Communications of the ACM* 50 (11):60-64.

Orlikowski, W J. 1992. Learning from Notes: organizational issues in groupware implementation. Proceedings of the 1992 ACM conference on Computer-supported cooperative work.

Orlikowski, W J. 2000. Using technology and constituting structures: A practice lens for studying technology in organizations. *Organization science* 11 (4):404-428.

Orlikowski, W J, and S V Scott. 2008. *The entangling of technology and work in organizations*: Information Systems and Innovation Group, Department of Management, London School of Economics and Political Science.

Orr, J E. 1996. T*alking about machines: An ethnography of a modern job:* Cornell University Press.

Ostrom, E. 1990. *Governing the commons: The evolution of institutions for collective action*: Cambridge university press.

Pelto, P. J. , and G. Pelto. 1978. *Anthropological Research: the Structure of Inquiry*. Cambridge: NY:Cambridge University Press.

Penrose, E. 2009. *The Theory of the Growth of the Firm*: Oxford University Press.

Piskorski, M. J., and A. Gorbatai. 2013. *Testing Coleman's Social- Norm Enforcement Mechanism: Evidence from Wikipedia* Harvard Business School working paper.

Polanyi, K. 2001. *The Great Transformation: The Political And Economic Origins Of Our Time* US: Beacon Press

Rogers, E M. 2010. *Diffusion of innovations.* New York, US.: Simon and Schuster.

Sahlins, M D. 1963. Poor man, rich man, big-man, chief: political types in Melanesia and Polynesia. *Comparative studies in society and history* 5 (03):285-303.

Schneckenberg, D. 2009. Web 2.0 and the empowerment of the knowledge worker. *Journal of knowledge management* 13 (6):509-520.

Sharp, L. 1952. Steel axes for stone-age Australians. *Human organization* 11 (2):17-22.

Shirky, C. 2009. *Here Comes Everybody: How change happens when people come together*: Penguin UK.

Suchman, L. 1995. Making work visible. *Communications of the ACM* 38 (9):56-ff.

Sørhaug, T. 2001. Fra on time til online - mot en ny sosial kontrakt? Arbeid, kunnskap og organisering i den "nye"økonomien. *Horisont: Næringspolitisk skriftserie*.

Sørhaug, T. 2004. *Managementalitet og autoritetens forvandling: ledelse i en kunnskapsøkonomi*. Bergen, Norway: Fagbokforlaget.

Tapscott, D, and A D Williams. 2008. *Wikinomics: How mass*

collaboration changes everything. New York, USA: Portfolio, the Penguin Group.

Von Hippel, E. 2005. *Democratizing Innovation* Vol. 1st: MIT Press Cambridge, MA. London, UK.

Weber, M. 1971. *Power and bureaucracy*. Penguin, Harmondsworth.

Weber, M. 1998. *The Protestant ethic and the spirit of capitalism.* 2nd Roxbury edition ed. Los Angeles, USA: Roxbury Publication.

Weick, K. 2001. Enactment and the boundaryless career: Organizing as we work. In M B Arthur and D M Rousseau (eds.) *The boundaryless career: A new employment principle for a new organizational era.* New York: Oxford University Press.

Whittington, R. 2006. Completing the practice turn in strategy research. *Organization studies* 27 (5):613-634.

Williamson, O. E. 1985. *The Economic Institutions of Capitalism.* New York: Free Press.