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Reconfiguring professionalism in digital work

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Abstract

Information Systems (IS) research and practice face ever more complex challenges as Information Technology (IT) for work expands beyond organizations and merges into everyday life. The COVID-19 pandemic of 2020 has amplified the need to understand digital work and its implications for professionalism. This study addresses that gap in the literature. The focus is on blended IT, referring to the fact that professionals today use personal and organizational IT interchangeably for work, while they also face a new situation of increased citizen involvement in their institutions through IT. This paper draws from three empirical public sector cases with the aim to contribute a deeper understanding of what digital work entails and how public sector professionalism is reconfigured by blended IT. The research question is: how is public sector professionalism reconfigured in digital work? Our findings illustrate this reconfiguration in three main ways: a) the personal and professional uses of IT merge, influencing professional autonomy; b) the incursion of patient and citizen IT into the scope of work challenges established views on knowledge and expertise; and c) altogether, balancing the streams of blended IT impinges on the core value of the common good that is characteristic of public sector professionalism. These three processes of reconfiguration outline professionalism in digital work.

Keywords: Blended IT, Digital Work, Reconfigurations, Professionalism, Public Sector, Changing nature of Work.

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1 Introduction

Information Systems (IS) research and practice face increasingly complex challenges as information technology (IT) for work expands beyond organizations and merges into other parts of life. This development is amplified by the COVID-19 pandemic, as on-site work is almost entirely replaced by different degrees of mobile working, working from home, and digital teamwork and collaboration. In these emerging work environments, professionals increasingly use their own devices and apps and bring IT usage patterns from private life into their work. Concurrently, citizens are becoming more involved in democratic and collaborative processes through IT, as they interact with social institutions (e.g., healthcare, employment, government, education), and affect professional work and role relationships in these settings (Carter & Grover, 2015; Islind & Lundh Snis, 2018; Norström, 2019; Wynn & Vallo Hult, 2020). The use of personal IT at work and its related benefits and challenges has been variously addressed in the literature from individual, organizational, and market perspectives, often described in terms of individualization or consumerization of IT (e.g. Gaß et al., 2015; Jarrahi et al., 2017). While researchers have studied the diffusion of technologies outward from organizations, less is known about how the use of personal IT moves from people's private lives into workplaces (Leonardi & Vaast, 2017). The changing conditions for professional work specifically in the context of the digital transformation of the public sector are also under-researched (Jetzek, 2015; Plesner et al., 2016). In this paper we use the concept of *blended IT*, as an overarching term, when referring to both a) the blending of personal

and organizational IT that professionals use, and b) the IT and data external actors bring into the work environments of professionals, such as patients in a hospital context or citizens in a municipality.

The concept of public good is essential to public service; inclusiveness has been identified as a key challenge as public sector services become increasingly digitized (Vassilakopoulou et al., 2017). Altogether, blended IT is a new development in the changing nature of work; it redefines and reconfigures professional roles and existing professional work practices that may embody the values of those roles (cf. Baptista, et al., 2020; Orlikowski & Scott, 2016). Rather than replacing entire professions, the new technologies are deemed to change the boundaries of professional roles and tasks (Faraj, et al., 2018; Sampson, 2020) and traditional ways of thinking about professional knowledge and expertise (Susskind & Susskind, 2015). The phenomenon of digital work needs to be understood outside of a techno-centric perspective, through attention to the broader phenomenon of technologies and ongoing adaptive practices (Jensen, 2018). The effect of digital technologies on professionalism beyond technologies provided by an employer for specific tasks is an important, yet still understudied area (Baptista et al., 2020; Ellaway et al., 2015). Reflections on the consequences of increased digitalization are often missing in the enthusiasm over measurable productivity effects; and the principles of societal impact, greater good, and the human benefits of using specific services are left unexamined (Majchrzak et al., 2016; Sarker et al., 2019).

Against this backdrop, there is increasing research interest and an urgent need to account for the implications of online-onsite hybrid work settings for professional work (Baptista et al., 2020; Saridakis et al., 2020). This study addresses emerging challenges for public sector professionals arising from increased use of blended IT, to understand specifically what digital work and professionalism entail in this context.

Work in the public sector is characterized by strict boundaries, guidelines, and rules. Additionally, those professions considered to be public sector professions are deeply rooted in professional cultures (such as medicine) with their own unspoken standards. When the setting of work is as highly institutionalized as hospital settings are, the work has historically been performed in specific rooms, where the uniform or work phone, for instance, are objects that can be linked to work hours and are left at work at the end of the workday. With new types of communications, new professions are incorporated into the public sector, such as that of communicators who are not rooted in the same highly institutional setting as healthcare professions but face similar challenges. Public sector professionals, often referred to as public servants, share a non-profit orientation that characterizes the role of a professional in the public sector, i.e., representative, accountable, transparent, and serving the public good (Norström et al., 2017; Susskind & Susskind, 2015). While there is a growing interest in professionalism and how professionals see themselves in terms of who they are and what they do, there is a scarcity of prior research exploring aspects of professionalism related to IT at work (Jussupow et al., 2018; Nelson & Irwin, 2014). Furthermore, the boundary between public and private sectors is changing in some countries, as selected public services are privatized, providing another possible dimension. Due to the COVID-19 pandemic, there is a newfound interest in understanding the what the effects are of the workplace as a physical space and how objects related to work arrangements, as along with the requirements of increased reliance on IT for working from home (van der Lippe & Lippényi, 2020).

In sum, given these circumstances and the complexity of modern work and the modern public sector, it is important to understand the hidden details of professionalism in digital work, as these were assumed within the familiar workplace practices (Norström et al., 2017). In this paper we try to explain how professionalism in digital work is reconfigured in order to describe the deeper effects of digital work and move beyond instrumentalist views of workplace technologies, responding to recent calls for such research (Baptista et al., 2020). More specifically, the focus in this paper is on the perspective of professionals, as we seek to untangle the reconfiguration processes that arise in digital work because of blended IT. We do that through the following research question: *How is public sector professionalism reconfigured in digital work?* This paper builds on three cases from the public sector spanning three years, involving physicians, nurses, and municipal communicators.

2 Digital Work

There is as yet no common definition of what digital work constitutes, though the phenomenon of digital work has been studied from various standpoints. “Defining digital work as simply that which draws on

digital tools is too broad as it subsumes most modern workers. Instead, digital work is better conceived as the type of work which is fundamentally reconfigured using digital technologies...” (Ens et al., 2018, p.3; *see also* Orlikowski & Scott, 2016; Mrass, 2017; Wang, 2018). To understand the implications, it is important to be aware of technological advancements, the pace of change in the digital landscape over the past years, and the organizational responses to this change. In this section we outline key perspectives from the stream of research on IT and the changing nature of work that underpin this study.

From an IS research perspective, when IT for white collar work was introduced in the public sector in the 1970s, it took the form of single applications used for specific purposes, to increase organizational efficiency and productivity, as well as to store data in joint repositories. Small and discrete social and technical components were identified and optimized (Orlikowski & Scott, 2015). Since the mid-2000s, IS research on digital work looked beyond contained corporate systems toward broader relationships outside the boundaries of organizations. Mathiassen & Sørensen (2008) discuss this movement as a development towards “services rather than traditional systems perspective” (p. 313). From a service perspective of work, digital work entails a focus on the processes of work activities, in an ecology of relations, resources and competence (Lusch & Nambisan, 2015; Orlikowski & Scott, 2015). In other words, besides viewing IT in the workplace as tools to aid specific tasks, digital work needs to be understood as the relation between IT and work activities in general. This includes processes of improvement for all actors and includes all types of IT that employees use for working. This is as we see it, the foundation of digital work.

Research on organizational social media, also referred to as enterprise social media (ESM) documents the introduction of integrated internal platforms, including social media functionality that goes beyond existing technologies for work purposes like email, newsletters, shared calendar and document libraries. The new technologies allow employees not just to consume corporate-level information but to add and create content that any other employee can see. This is different both from dedicated team sites and mailing lists that are restricted to selected users, and from one-way corporate communications, which tend to be formal (Leonardi, et al., 2013; Leonardi & Vaast, 2017).

...what makes ESM unique and potentially transformational within organizational contexts is that in addition to allowing users to [perform typical activities] all in one place, those activities are ... recorded, stored, and available for one's co-workers to view at any time in the future (Treem & Leonardi, 2012). Consequently, there are at least two affordances provided by enterprise social media that make them distinct from other communication technologies commonly used in organizations: They provide people visibility into the communicative actions of others and the visible traces of those communicative actions persist over time. (Leonardi et al., 2013, p. 3)

Blended IT continues that trend, as it is built on integrated workplace IT and social software, which allows increased flexibility for people to design and coordinate their work in ways that cannot be anticipated a priori by researchers and developers (Nitschke et al., 2020; Williams & Schubert, 2018). Baptista et al. (2020) describe the development of IT from a strategic information systems perspective, as different layers of evolving workplace technologies “from instrumental to collaborative to intelligent augmentation” (p. 5). They suggest that these layers can have both surface and deeper effects. Challenges identified in the evolution of workplace IT concern paradoxes of simultaneous change and control (Baptista et al., 2017). The use of consumer IT as an integrated part of digital work is an illustrative example of such tensions, where individuals have become skilled in managing their own choices of IT; this clashes with institutional need to ensure consistency and in a public sector environment, such as healthcare and government, the added aspect of patient and citizen privacy. Different strategies are recommended to find balance between inflexible, one-size-fit all approaches and individualized solutions, for example by focusing on different user segments (Jarrahi et al., 2017) or combining “bottom-up, middle-ground, and top-down, approaches” (Leonardi & Vaast, 2017) as the digital workplace encompasses various types of technologies, and needs and uses may differ between organizations and individuals.

Another stream of research on digital work has focused on knowledge work and people working from home or outside the office (e.g., digital nomadism), as a new way of organizing life and work. That stream of research focuses on classification of digital natives versus digital immigrants; yet another

stream outlines how different types of technologies influence work structures (e.g. Colbert et al., 2016; Wang et al., 2018). Along those lines, there is a growing interest, reinforced by the COVID-19 pandemic, on telework and remote working (cf. van der Lippe & Lippényi, 2020). However, we consider that the concept of telework or remote work encompasses a lesser scope than digital work, as digital work includes more than working from outside the office.

In sum, there is a growing interest in understanding ongoing reconfigurations of existing professions, such as the digitalization of professional work in the public sector (Jetzek, 2015; Plesner et al., 2016). This paper builds on and contributes to the emerging body of literature on digital work (e.g. Bandi et al., 2020; Baptista et al., 2020; Orlikowski & Scott, 2016). In the following section we will go on to outline the theoretical framing of professionalism, with focus on the relation between blended IT and public sector professionalism.

3 Professionalism

To identify and understand the impact of blended IT on professionalism, we first need to clarify the related concepts of profession, professional, and professionalism. Susskind and Susskind (2015, p. 15) describe professions as sharing the following overlapping characteristics: “They have specialist knowledge; (2) their admission depends on credentials; (3) their activities are regulated; and (4) they are bound by a common set of values”. They also make a distinction between professionals and professions: professionals are the human specialists; and the professions refer to the occupational groups and institutions to which the specialists belong. Professionals are guided by professional codes rather than by top-down orders, even when working within a chain of command. Professionalism is commonly described as “the conduct, aims, or qualities that characterize a profession or a professional person”, in other words, “the level of skill, good judgment and polite behavior expected from people trained to do their jobs well” (Merriam-Webster, n.d.). Digital professionalism is defined in a medical context as structured around concepts of proficiency, reputation, and responsibility, behavior that is described as being deliberate, ethical, and accountable in the use of digital media (Ellaway et al., 2015).

Membership in a professional group includes both identification with the social group and the social roles that come with a particular profession (Ibarra, 1999). According to Jussupow et al. (2018) professional identity consists of a social identity as a member of a profession and personal identity as the individual enactment of professional roles. This may lead to conflicts between roles, as for instance, between being an expert, provider of care/service, and a resource allocator. Jussupow et al. (2018) specifically address dimensions of professional identity in relation to IT and professional work, noting that IS research has taken a fragmented response to threats to professional identity. They conceptualize previous research on professional identity threats into five dimensions on individual and group levels. Expertise, status position, and professional autonomy are dimensions that belong to the individual as a member of the profession. Group-directed threats affect how members understand the professional role and include changes in tasks, norms and values, and professional boundaries. In addition to identity threats, some research identifies positive appraisals of the technology as presenting an opportunity (Jensen & Aanestad, 2007; Stein et al., 2015). Högberg and Willermark (2020), in a study of the relationship between professional identity and digitalization in the workplace, show that digitalization can be perceived as either beneficial or threatening, and that professionals take different approaches to meet (or avoid meeting) requirements for digitalization.

Goldkuhl (2012, 2015), Johannesson and Perjons (2017), and others have variously studied how new practices evolve as new workplace technologies become part of the daily work of professionals. New role-relationships are created, work practices change, and professional roles are redefined as new practices emerge beyond the boundaries of the organization. There is potential for knowledge co-creation and an opportunity for shared learning (Vallo Hult et al., 2020) that enables professionals and citizens to innovate public services together (Islind et al., 2021; Norström et al., 2019). But such co-creation processes are not without challenges. Professional roles are relational, i.e. defined and enacted in relationship to others, and it is suggested that changes therefore are especially difficult in the context of institutional settings like healthcare and government with their established practices and routines that rely on mutual role expectations and interactions (Reay et al., 2017). Being a professional in the public sector comes with a tradition of accountability and responsibility towards citizens and other stakeholders, and strong loyalty to the profession (Susskind & Susskind, 2015).

The openness and flexibility of digital work often contrasts with constraints and expectations created by organizational management, or the roles of public sector professionals (Gibbs et al., 2013; Norström et al., 2019). Professionals generally associate constant availability with flexibility and professionalism, despite the fact that, as Jensen (2018) emphasizes, it is not flexible to be constantly available. There is a need for better understanding and management of how to work flexibly using IT. There is a concern that digital work may lead to unintended and negative consequences such as fragmentation and stress (Ayyagari et al., 2011; Barley et al., 2011). However, other research points out that interruptions and task-switching may play an integral role in connected digital work (Mark et al., 2018), and multiple social media use can bring coherence to work activities in decentralized work environments (Forsgren & Byström, 2018).

4 Research Design

The research approach for this study aligns with a contrasting multiple case study approach. The research interest is grounded in a longitudinal engagement in three research projects, comprised of three different public sector organizations and the digital work of professionals in these organizations: 1) resident physicians, 2) cancer rehabilitation nurses, 3) municipality communicators. Apparent similarities across the cases, despite the differences in domains and work tasks, inspired us to revisit the material to better understand dimensions of professionalism in relation to digital work.

4.1 Data Collection and Analysis

The empirical data included in this paper is based on a qualitative approach, and this paper is framed as a case study (Yin, 2013). The case study approach allows for an interactional and participatory approach, where research and professional practices can meet and take advantage of each other's knowledge and benefit development of both domains (cf. Benbasat & Zmud, 1999; Davenport & Markus, 1999). The case study approach, as suggested by Yin (2013), includes complementary forms of data collection, which we explain in Table 1. The method can be seen as a way of understanding a specific phenomenon in a real-life context, rather than merely as a choice of techniques or methods (Stake, 1995). A case study can be positivistic (Yin, 2013), interpretive (Walsham, 1993), or critical (Carr & Kemmis, 2003). This study is an interpretive case study (Walsham, 1993, 2006). The three authors of this paper have each done individual data collection, in the respective empirical settings. Based on data from all three settings, we conducted a cross-case abductive analysis, looking for contextual details—rich descriptions of the blended IT and digital work in each case—and patterns within and across the empirical settings (Miles & Huberman, 1994). Unidentified transcripts and summaries from each empirical setting were read and coded first by the data collector in each setting separately, and then collaboratively coded for the purpose of the paper.

More specifically, the analytical approach for the paper has been conducted through abductive engagement with the empirical material and theoretical reasoning (Alvesson & Sköldböck, 2018). Here, the abductive nature refers to the interplay between the empirical data, realized through real-world problems that are inductively obtained in combination with influences from theory that are deductively inferred (Gregory & Muntermann, 2011) by viewing “reality from the theoretical viewpoint or perspective” (Van de Ven, 2007, p. 104). The abductive nature has thereby involved shifting between inductive and deductive reasoning as a way to continuously revise, sharpen, and re-formulate the research design (Gregory & Muntermann, 2011; Van de Ven, 2007). The coding was thematic and influenced by the theoretical concepts outlined in the previous sections, using an interpretive and iterative approach to find main categories common in all three settings. An initial coding protocol was developed and agreed upon to ensure reliability and validity, as the coding involved all authors. To illustrate the thick descriptions from each empirical setting we used narrative rhetoric (Bryman, 2015) aggregated from the transcripts in the following section. This method is suitable to emphasize and illuminate characteristics in rich-data cases.

Following the overall analytical approach through abductive engagement with the material presented herein, the data analysis was targeted towards understanding what reconfigurations of professionalism take place in digital work. The analysis also highlights how the professionals perceive their interactions with blended IT, and how their work changed over time. When coding the data, we categorized the material, looking specifically for traces of reconfigurations, derived from our

engagement with the literature. By doing that, we arrived at three themes: a) blending personal and professional IT; b) increased citizen and patient engagement through IT; and c) finding the level of professionalism in public sector digital work.

4.2 Three empirical settings

The data is from research projects in three different public organizations, and the digital work of professionals in the following domains: a) resident physicians, b) cancer rehabilitation nurses, and c) municipality communicators. The research was conducted in Sweden, as part of engaged research projects, one of which (b) was action research. All cases are based on more extensive research projects, but in this study, the empirical data are drawn from a specific period (2014-2017). Data collection and case descriptions are specified in Table 1.

Table 1: Data collection and case descriptions

Research	Time	Case descriptions	Empirical data	Reference
Case 1: Resident physicians	2015-2017	This case focuses on the role of modern information systems for everyday work and learning in healthcare. The focus is on the physicians' experiences, attitudes, and use of digital artifacts for everyday work.	15 individual semi-structured interviews, 3 follow-up focus groups (15 participants), 1 workshop, and 3 work meetings (4-6 participants each time).	Vallo Hult et al. (2016); Vallo Hult et al. (2019)
Case 2: Cancer rehabilitation nurses	2015-2017	This case focuses on the transformation of nurses' practice when designing and using various digital artifacts in collaboration with patients; in this paper, the focus is the use of workplace technologies as a part of everyday work.	15 observation days at the clinic. 10 workshops with nurses and patients, some only with nurses, some mixed. Eight semi-structured interviews with nurses.	Isind (2018)
Case 3: Municipality communicators	2014-2018	This case focuses on new emerging relationships with citizens and a challenge to the role of the local government when social media is used by municipal communicators in daily communication with citizens.	14 interviews with communicators and communication managers and 2 workshops with 26 participants from different municipalities.	Norström (2019)

The cases represent different public sector professionals, and can be separated into three types of professions (*cf.* Brante, 2013): classic professions (physicians); semi-professions (nurses) and pre-professions (communicators). Despite apparent differences, all face similar challenges and describe new ways of working. The digitalization of work in the public sector reflects Sweden's political philosophy of social democracy and openness, and the espoused practices of tax-funded and politically driven organizations. Legislative frameworks that directly or indirectly constrain everyday work include the principle of public access to official documents (SFS 2009:400) and the Patient Act (PSL 2010:659). The three cases share the non-profit orientation. The task contexts, however, are different in the three cases:

- The *resident physicians* practice as physicians but are also engaged in clinical training (minimum 5 years) towards specialist competence. They represent several medical fields, and work across departments and medical specializations.
- The *cancer rehabilitation nurses* are specialized oncology nurses working within a clinical practice at a large hospital. They meet patients that have undergone treatment for severe cancer in the pelvic region and help them to cope in the aftercare.
- The *communicators* work in central administration in the city hall. They have the responsibility to inform the public about decisions, developments, and activities undertaken by the municipality. They plan strategic communications, publish news, and provide media coaching.

As we study digital work, blended IT, and professionalism in this paper, we want to unpack blended IT. First, the tradition in public sector IT has been one of single purpose technologies and systems that are implemented top-down in an organization to support mainly documentation and narrow communication channels between professionals. Examples of these types of technologies are intranets, clinical decision support systems (CDSS) and electronic patient records (EPR). Second, consumer IT comprises mostly externally provided platforms and applications that professionals also use privately and bring into the workplace to improve aspects of their work. These can be applications like YouTube used for instruction and learning of work tasks (for instance for a specific hand surgery), and social media like Facebook, that is used for internal communication with peer professionals as well as externally with citizens/patients. These technologies are in that sense, bottom-up and initiated as a response to demands from citizens/patients and as a complementary approach that enables fast, instant and boundless access to information and connections. Third, there is data brought in by patients/citizens to consultations and in communications with professionals.

5 Findings

The data suggest that professionals respond in varied but similar ways to changes and challenges emerging from blending IT at work. We refer to these processes as reconfigurations—emphasizing that professionalism in digital work is not static, but dynamic and evolving continuously over time. The analysis identified three main themes. Each theme is discussed below, illustrated with contextual narratives (vignettes), aggregated from the transcripts and analysis, along with sample quotes from the interviews. The theme descriptions are simplified for analytical purposes, to illustrate typical interactions with blended IT from the professional perspective, whereas in practice there are overlaps, as IT tools and usage among professionals vary between individuals and situations and change over time.

5.1 Blending personal and professional IT

This theme relates to aspects of professional autonomy and influence and reflects participants' experiences of control over their own work, which is challenged by the dual demands of availability and flexibility in digital work.

The traditional practice did not require constant availability where the private and the professional collide. It involved leaving work at work, having a specific work phone, and only accessing emails and work documents during work hours. Now, even when trying to keep work at work, and even though there are no formal expectations to do it, you often end up checking e-mails and social media at home or on the way to work. Sometimes it's because you feel like someone needs to do it, to take on the

responsibility. And other times it's for your own sake, that it saves you time in the end, and then having the possibility to access work from home gives you more freedom and control in a sense. It's not problematic to switch between different IT in terms of using personal IT at work and working with professional IT from home; but finding the right balance between your private and professional life in the context of digital work can be a struggle.

The participants reflected on both positive and negative aspects of blending personal and professional IT at work. They shared feelings of frustration at being stuck with old-fashioned systems at work, as they saw the potential with what they described as smart apps and tools that they use for private life. They also commented that the public sector is lagging in development. At the same time, there was a tendency among participants to leave the "private digital identity" at home when changing into work clothes. Coming from professional cultures where work stayed at work, participants found the transition to not leaving work at work difficult. But changing the 'digital uniform' when leaving work is no longer always an option. Challenges arise from the contrast between IT-enabled around-the-clock communication and the traditional 9-5 public professional schedule, eroding a previously clear boundary in time that used to separate work from private life. The physicians emphasized for example that taking a mental break from patient cases is necessary to handle the job. Having access to email and medical evidence online, while convenient as a way to keep updated or look up questions when they come to mind, also makes it easy to get sucked in and work over weekends or at nights, keeping the mind at work even if it's not about a specific patient or case. For communicators, it's worse; they need to be aware at all times, as they don't control when and what people write in social media channels:

We published the news in the middle of the week, but it was not until Friday and Saturday evening that the debate started and well, it went out of control and I had to go in there and remove comments and tell them that you need to think about what you write [...] So, you need to almost constantly monitor the conversations because it can degenerate at any time. It is not common, but it can happen. (Communicator)

The stress of not being able to let work go was emphasized in all three cases, especially since it is often left to professionals as individuals to figure out how to juggle multiple competing tasks and demands in a day. However, they also described coping strategies for how to deal with this, for example formalizing previously discrete, invisible work by scheduling time for it in the shared calendar, thus folding new work tasks into existing practices. In the case of the nurses, a professional communicator was engaged in the project to support the transition of the new tasks that did not used to be part of nursing work. The nurses stated that the smooth transition was beneficial.

The communicator is not a part of the clinical work but has been a helping hand as a part of the research project focusing on digitalization in healthcare. As such, the communicator has been a part of the change process but is not a permanent part of the practice; so, the nurses are slowly transitioning into having all online communications as a new kind of responsibility. (Nurse)

Online communication and increased online presence changes the way participants act and interact; having some time to adapt is important. There is also a clash between the role of public sector and the way everyday IT like social media is structured, as in the case of communicators. Participants generally addressed paradoxes in their use of personal IT for work in relation to managerial expectations and policies. Using social media and smartphones at work in the healthcare setting, for example, is promoted as part of "digital care" at the strategic level, while at the same time it is not allowed and often mistrusted by many managers and colleagues in everyday practice. In general, there was a tendency to differentiate between using IT for private and administrative purposes and professional use of IT for work, especially regarding patient and citizen relations. Typical contradictions professionals perceive are that organizational structures in themselves tend to become barriers for utilizing IT-enabled features, for instance for collaboration and sharing of information and data.

Patients take for granted that if they've been in the hospital to where I have sent them, that we have the same information [...] so it's the structure of the healthcare system rather than the IT-systems that's the main challenge here. (Physician)

In this context, these professionals balance between staying within the rules (formal and informal) and devising workarounds to get the job done. The participants referred to this as a situational judgment call related to professionalism, depending on the matter at hand. There are unclear policies, contradictions, and mixed signals on the one hand about their own perception of professional roles, and on the other hand from the IT department and management about what is or is not allowed. This puts more pressure on professionals who are already experiencing stress related to work-life balance, as they engage in reconfiguration of their professionalism.

In sum, when the boundaries between professional and private life become blurred as personal and professional IT blend, this can create flexibility and provides a liberating practice for some, but also requires adjustment. The character of blended IT as simultaneously beneficial and constraining, is reflected in all three cases as an ambiguity between wanting to work flexibly and independently, while at the same time seeking support for “turning off work”, in terms of asking for guidance and regulations to follow. We identify this as a process where participants’ attitudes are shifting over time towards accepting/embracing more fluidity as part of professionalism as a response to experiencing less autonomy and influence over the work, when professional work spills over to personal life.

5.2 Increased citizen and patient engagement through IT

This theme illustrates how professionalism is reconfigured to accommodate to the new context of citizens and patients that use and bring their own IT when interacting with professionals, challenging established views of professional knowledge and expertise.

Inclusiveness, in terms of incorporating the perspectives and needs of citizens and patients, has always been an important part of professionalism, in evidence-based medicine as well as in democratic processes in general in the public sector. The difference from previous practices is that citizens and patients now use and bring not only their own (subjective) information and experience, but also their own IT and data into communications with professionals. This means in some cases that they have more knowledge, often specific and in-depth, on a particular subject from trusted sources or longitudinal data, which can be helpful. But it can also be the opposite, that they are misinformed, for example from fake news, online health information found on various forums, or Facebook discussions in the municipalities where rumors are quickly spread. In those cases, it requires energy and time to deal with these mistakes, explaining and intervening on issues that often lie outside of the traditional professional role. The new context of more informed, digitally engaged, and increasingly competent citizens and patients clashes with established views of knowledge and expertise related to issues outside the professionals’ core competencies. This creates uncertainties.

In all three of our cases, there are examples of blended IT, where IT and data that are mainly used and developed outside the public sector domain are brought into the work practices of professionals, such as by patients in a hospital context or citizens in the municipality. While some participants perceived this as burdensome, the trend toward increased citizen/patient influence through IT was generally regarded as a positive development.

In a way [when patients have access to information and discuss with other patients] it means that us doctors, it forces us to keep updated too. But I have never felt it as compelling, rather I have felt [it] as an asset. I want my patients to receive the best treatment...so it's both for the patients and for my own sake, not because I am afraid that the patients are more knowledgeable. (Physician)

Participants also described challenges and contradictions that are exacerbated in new communication channels like social media. The healthcare setting provides illustrative examples, where participants describe how they are stuck using traditional mail, or “fax if it is urgent”, while the patients expect them to be up to date and have their medical histories at hand; clearly there is a general unpreparedness to handle digital communication in clinical practice. Organizational systems, like the

electronic patient record system, are developed for administrative purposes, whereas newer systems are developed for the purpose of integrating the patient in the care process, which calls for new types of IT.

Patient-generated health data brought to the clinic can be a valuable resource, but as it cannot be imported into the patient record system, so I need to use the other system as well, so it is creating new aspects of work. (Nurse)

It was viewed as distressing not to know how to use a system that is supposedly simple; and while younger colleagues may be knowledgeable about how to use IT like social media, they may not know how to be digital at work when it comes to professionalism in interaction with patients and citizens. Participants described how they now face IT-related issues around for example ethics and privacy, that demand other types of knowledge. Both in the context of healthcare and of municipalities, participants faced similar challenges related to using everyday IT both in private life and professionally in the context of being a public sector professional. The new work tasks are related to, but not directly connected to core work tasks, which was expressed as an ambiguity. Participants problematized around professional boundaries, for instance by separating the medical responsibility for patients from technical support around various health apps the patients may bring in. A similar concern was expressed by the communicators, who can be responsible for social media channels, and thus what other people write or comment and for handling controversial or sensitive content. The new tools for communication inspire communicators to go beyond traditional information and communication activities to become involved in marketing and brand activities, and to work as media trainers and teachers for other groups of professionals in the municipality.

Social media is just as it sounds, you should be a friend, the municipality should be a friend to those who follow us [on Facebook, Instagram and Twitter [...]] So, I try to always have a friendly and easygoing tone, not to write academically, often short posts and exclamation marks and I sometimes try to express feelings I have, that the municipality has. (Communicator)

In sum, this theme illustrates dimensions related to expertise and status, as participants find ways to incorporate patients' and citizens' often contradictory perspectives and views into everyday digital work. This is a cultural rather than a technical shift, that demands new approaches and other types of knowledge of professionals. We view this as professionalism being reconfigured to accommodate to the new context of citizens and patients that use and bring their own IT when interacting with professionals, thus influencing established views of professional knowledge and expertise.

5.3 Finding the level of professionalism in public sector digital work

Lastly, the interweaving of blended IT influences the core value of the common good that is specific to public sector, thus reconfiguring professionalism towards more guiding and collaborative roles. This theme is a synthesis of the two themes above, illustrating the intersection of blended IT, and specifically highlighting aspects of professionalism in the public sector.

As a public sector professional, you always represent your work, even in private settings. This means you cannot post something privately, that is not in line with the values of public government. Now, the push for openness and transparency in communications with the public makes this a balancing act, as people expect to get instant replies on social media, but also expect professionalism. This means that you need to find a balance and navigate established practices with the integration of IT that blends into work and private life, along with new ways of working, and sometimes this becomes a struggle. Underpinning this is also a fundamental value of serving the public good, which is a core value of public sector professionalism. With this come new responsibilities to make use of the information and data brought in by citizens and patients, as well as to change the image of public sector as bureaucratic and old-fashioned in contacts with digitally engaged people. On the other hand, there is also an even more important responsibility now to include the people that are not as digitally knowledgeable. So, there is a balance between the old ways of providing answers and be very formal in all contacts, and the new flexibility and need to guide and support in a broader sense. Sometimes this feels overwhelming.

The participants commented explicitly on the roles and responsibilities of working in the public sector, described as demands to be accountable, politically neutral, and formal or less personal in communications. Participants recalled colleagues being careless and posting photos on Instagram or writing about the employer in a private group, and even losing a job over such incidents. Professionalism in ever-changing, informal, flexible, and transparent work environments (characteristic of social media practices) contrasts with traditional hierarchical structures in the public sector.

People expect to get instant replies on social media [...] If we continue to be slow, as before, we are not giving a serious impression, as if we are not keeping up with how people talk to each other these days. Then the old impression of the municipality as a bureaucratic institution will persist, and people might stop talking to us. (Communicator)

Related to the sense of duty that comes with being a representative for the public sector, participants felt responsibility towards patients and citizens regarding reliable information and services. Participants expressed this as an intention and obligation, where wanting the best for patients and citizens always came first. Some participants raised concerns about the risk of increased workload. It adds digital stress to handle new and changed tasks, role clashes, and priorities, especially when the responsibility to find work-life balance lies with the professionals. Professionals need to find a balance and navigate established practices with the integration of new work activities; sometimes this is a challenge, as with physicians who struggle to align patient needs and medical practice standards, illustrated in the case of the cancer rehabilitation below:

I go out of the clinic, to an office that the nurses share, to be able to concentrate on this new part of my work [using digital tools to discuss with patients]. This, [walking to a new location] makes the transition even more complicated. I am not able to take that risk of leaving for a secluded location in an understaffed clinical clinic with urgent patient matters. (Nurse)

Participants expressed worries about the quality of information and use of new IT, especially as it is mainly developed with commercial interests in mind and raises ethical concerns and dilemmas around prioritization. Working as a professional in the public sector means working for the public good. Participants expressed a concern that openness may lead to misunderstandings and unnecessary worries for patients or citizens. Taking on the responsibility to inform and educate patients and citizens has become an increasingly important part of professional practice in all three cases.

Previously, we were the almighty doctor in some way, now the patient says that I have read...we must be humble with it, I think, to be able to connect with the patients. (Physician)

However, while the blending of private and professional IT was sometimes problematic, participants in all cases named benefits, both for their own work and in relations with citizens and patients. They described a change of attitudes. For instance, in healthcare it used to be considered embarrassing for physicians to use Google, especially in front of patients, whereas now they may take on a guiding role, explaining how to search and where to find reliable and trustworthy sources. The communicators talked about positive aspects of transparency and speed of social media communications with citizens, allowing them to be proactive or to intervene with information and avoid misunderstandings.

You can stop various negative posts and comments, for instance if a discussion has gone in a completely wrong direction, then you can sort of stop it with the help of Facebook. (Communicator)

In sum, this theme highlights professional values of service providers. In addition to involving a new demand for high-quality relationships with the public (citizens, patients, politicians), blended IT changes the way communications and work are distributed. The incursion of citizens into the professional role, and the requirement to blend IT for that purpose, changes the fundamentals of professionalism. But the role of a professional does not change entirely; instead, boundaries shift when

work is carried out with old and new practices in parallel. This in turn calls for reconfigurations of work, of what it means to be professional, and of professionalism.

6 Discussion

In this paper, we have focused on the research question: how is public sector professionalism reconfigured in digital work? We analyse the reconfigurations through blended IT at work from the perspectives of professionals in three public sector contexts. The interest was based on similarities and common patterns noticed across the cases, where individual differences and aspects related to the separate settings were backgrounded for the purpose of the study. Through abductive analysis, three themes could be outlined in our findings. The themes illustrate three main ways professionalism is reconfigured in digital work.

First, our findings show how blended IT influences professionals' experiences of autonomy and influence, attributes traditionally related to professionalism (Jussupow et al., 2018; Susskind & Susskind, 2015). Participants describe feelings of stress and overload due to increased workload amplified by fragmentation, information overload, and digital stress identified in prior research (Ayyagari et al., 2011; Barley et al., 2011). While these challenges related to work-life balance are not new, they are now pervasive and demand new strategies, as shown in our findings. It is increasingly important to understand the blending of personal and professional use of IT at work in light of the COVID-19 pandemic (Saridakis et al., 2020), which we believe has accelerated the dual demands of flexibility and constant availability. Our findings suggest that the problem is not so much about increased workload or switching between different kinds of IT during the workday, despite apparent technical obstacles. It is more that participants feel strongly about having to perform extra administrative tasks in addition to core professional tasks as a result of workload spillover from core functions to administrative and technical ones. This is even more evident when it comes to issues like information security, privacy, and ethics that emerge from digital work without clear personal-professional boundaries (Vallo Hult & Wynn, 2019), along with tensions and conflicting perspectives arising from the complexity and contradictory character of digital work (Jensen, 2018; Sørensen, 2011). These findings parallel those found in other research on digital work and organizational social media, which also describe affordances like visibility and persistence in combination with constraints of institutional logic, clinical practice, and the conventions of specific professions. (cf. Leonardi & Vaast, 2017; Norström et al., 2019; Oostervink et al., 2016). Our findings highlight uncertainties and role ambiguity among participants in the absence of clear policies or guidelines to follow in the new channels, which contrast with the regulated infrastructures within healthcare and public sector in general.

Second, we saw how blended IT that is developed and used outside of the public sector domains and brought in by patients and citizens affects professional knowledge and expertise. All three cases illustrate an ongoing development towards increased citizen/patient engagement and influence. Consistent with prior findings (Islind, 2018; Norström, 2019; Vallo Hult et al., 2019; Vallo Hult & Wynn, 2019), increased citizen and patient participation and the new openness of digital work environments challenges established views of professional knowledge, skills, and expertise. From the professionals' perspective, new challenges arise from being approached on private social media, thus eroding old professional boundaries. The ongoing shift toward consumer influence and transparency represented by Facebook in the municipalities, health apps, and self-tracking by patients, all affect professional practices. These have different characteristics than traditional IT, because the technology is not limited to an original purpose, but can be used in open-ended ways (Nitschke et al., 2020; Williams & Schubert, 2018).

The communicative aspect of professional work is another area where blended IT impacts professionalism as networks extend beyond the workplace, providing new ways to contextualize and prioritize knowledge, and leading to a revised sense of knowledge and expertise that challenges traditional views of the role of experts. Susskind and Susskind (2015) have described this as a trend to a post-professional society where communities of experience pose challenges to professions.

Finally, we saw how blended IT influences a core characteristic of working in the public sector, which is the duty of professionalism to serve the public good. Working in the public sector means that there are external political and economic aspects that have consequences for the practice, e.g., political initiatives for digital services. Our findings reveal tensions and contradictions in contemporary

professional work; on the one hand there is a push for transparency and openness in social media communications, and on the other, there are increased restrictions due to concerns about privacy and data security. In line with other research, our findings show that in practice, the work is structured around established procedures and work cultures that force professionals to navigate the contradictions of what is possible and what is allowed (Bergquist et al., 2015). This transformation requires the ability to adapt and learn how to balance old analog and new digital work practices, usually in parallel. Added complications arise from communication conventions from one-to-one exchanges in well-known work situations, to one-to-many in open work environments. New communication approaches are needed when information can spread to unknown audiences, resulting in failure to tailor content and delivery as normally occurs in face-to-face social life (Marwick & Boyd, 2011; Norström et al., 2017; Wynn & Katz, 1997)

To sum up, our findings suggest that professionalism is reconfigured in response to blended IT. Our findings illustrate the ambiguity noted in prior research (Jensen & Aanestad, 2007; Jussupow et al., 2018; Stein et al., 2015), as professionalism is reconfigured to include both positive and negative appraisals of using digital technology at work. Our study also shows that professionalism is shaped by the relationship between experts and the community. In all three cases, participants shared a concern with providing services to people based on specialist knowledge (Susskind & Susskind, 2015). When new technology is used, the relationship with the public becomes more visible, as citizens and patients can take a more active role in encounters with professionals. This challenges expertise and professional status, as identity and status become processes of negotiation between professionals and citizens (Norström, 2019; Norström et al., 2019). Simply put, our results show that professions no longer have higher status by default. Conversely, even as digitally informed and engaged clients can question professionals, professional status and identity can also be strengthened due to an increased need for specialized knowledge in times of fake news and information overload. The contradictions expressed by the professionals in this study (e.g. frustration due to the failure use technology to full potential; IT policies are an obstacle rather than a support) are common across most implementations, going back a long way (Markus, 1983; Orlikowski & Baroudi, 1991). Recent research, however, suggests that the evolution of IT at work over the past decades involves the formation of new complex human activities (Baptista et al., 2020; Benbya et al., 2020; Rai et al., 2019). A better overview and understanding of how the systems are related is needed, along with strategies for how to act in different systems, breaking down silos and seeing the bigger picture. The reconfiguration of professionalism entails a shift from previously formal, hierarchical structures towards increased flexibility and openness. Work tasks change, and new ones are added. Being a professional takes on a different meaning. What this study shows is that the interplay between blended IT and professionals in the public sector is not straightforward. Instead, it is an ongoing process of reconfiguring professionalism in digital work.

6.1 Limitations and future research

Future research could extend our findings from the three cases by looking into other settings and professional groups. This study has focused mainly on similarities and patterns across the cases. There are also differences within and between the professions when it comes to dimensions of professional identity that would be worth exploring. For example, how are dimensions such as autonomy, influence, and expertise displaced, threatened, or strengthened in the different professions as a function of blended IT? In light of the COVID-19 pandemic, there are significant changes to come for all professions related to digital work, which future research could explore. A specific concern is how this changes professional practice when work is more isolated and distant, less bounded to physical workplaces and schedules, and subject to the exposure of privacy and patient security.

7 Conclusion

This study contributes with an understanding of what digital work entails and how professionalism in the public sector is reconfigured by blended IT. What the three cases show is that digital professionalism in the public sector is not straightforward. Balancing potential with contradictions is a process where professionals continuously develop new dynamic practices and reconfigure professionalism. The main contribution of the study is to illustrate how professionalism is reconfigured in three main ways: a) the personal and professional use of IT merge, which influences autonomy; b)

the entrance of patient and citizen IT into work challenges established views on knowledge and expertise; and c) altogether the interweaving of blended IT affects the core value of the common good that is central to public sector professionalism.

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