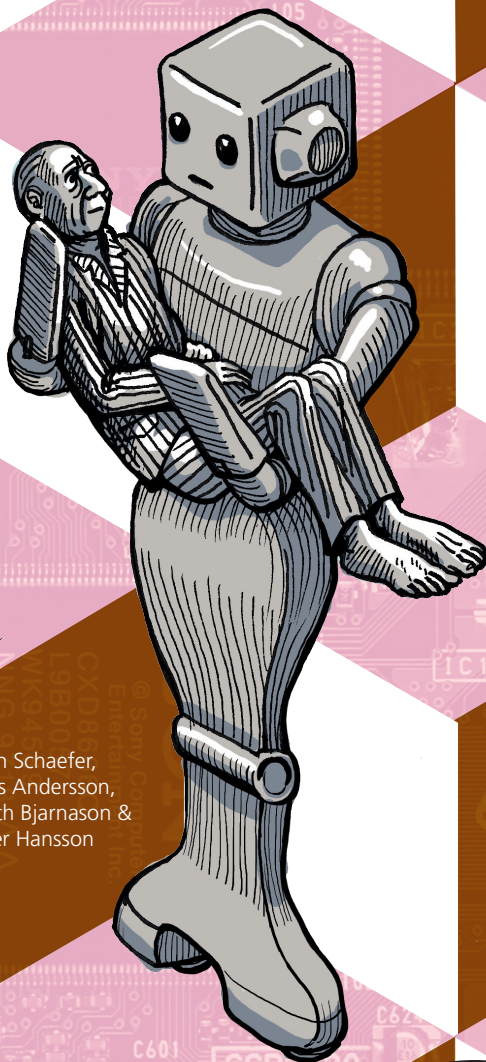


Working and Organizing in the Digital Age



**Edited
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Magnus Andersson,
Elizabeth Bjarnason &
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Stephan M. Schaefer, Magnus Andersson,
Elizabeth Bjarnason and Kristofer Hansson
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List of content

Preface	5
Introduction	9
<i>Stephan M. Schaefer, Magnus Andersson, Elizabeth Bjarnason and Kristofer Hansson</i>	
<i>Organizing</i>	
Chapter 1: The Doctor is Always Available: Mobile Phones as Clumsy Technology	19
<i>Johan Bergström</i>	
Chapter 2: Embellished Texts and Homely Homes: Affective Dimensions of Realtors' Work	27
<i>Magnus Andersson</i>	
Chapter 3: This Does Not Feel Like Work: Social Media Technologies in the Workplace	35
<i>Stephan M. Schaefer</i>	
<i>Monitoring</i>	
Chapter 4: Adapting Reality to the Matrix: Digital Technology in Social Home Care	43
<i>Calle Rosengren</i>	
Chapter 5: Who's the Company's Best Driver? Technology-Driven Competition	51
<i>Elizabeth Bjarnason and Stephan M. Schaefer</i>	
<i>Blurring</i>	
Chapter 6: Context Collapse in Healthcare: When the Professional and the Social Meet	61
<i>Kristofer Hansson and Elizabeth Bjarnason</i>	
Chapter 7: Breaking the Rules to Get the Job Done: When Digitalization Results in a Lack of Professional Jurisdiction	71
<i>Carola Aili and Lars-Erik Nilsson</i>	
From Careers to Atmospheres	83
<i>Melissa Gregg</i>	
Contributors	97

Preface

Times have changed. For example, I still remember when, as a student, I carried my books to photocopy rooms housing big bulky machines. I waited patiently in line until it was my turn, inserted coin after coin into the slot to make copies, and then carried stacks of printed paper home. Twenty years later the experiences I encountered as a student time and again look poles apart, certainly here in Sweden. Today we no longer queue up for a bulky photocopy machine to copy a journal article. We do not have our pockets full of coins to be fed into the copy machine or parking ticket machine. However, this also means no more daydreaming and reading books while waiting. Instead, these days, we have millions of journal articles readily available to us with just a couple mouse clicks. We have entered an almost cashless society (coins, as in 'bitcoins', are of course an entirely different matter). Most people do not daydream or read books anymore while they wait or commute but rather tilt their head to look at the small screen occupying their mind – we are 'alone, together', as Sociologist Sherry Turkle expresses it so well. However, this *homo digitalis* is not a new fashion or trend that we will reflect upon in a few years when we go back to the way things were. On the contrary, our digitalized (working) life is here to stay. The digital age has crept over us. Slowly but steadily, it has changed the way we live, work and think. For most us, these changes have meant some relief: I am happy to skip my trips to the library to tediously photocopy articles, and I never liked keeping heavy change in my pocket. Yes, I admit I have welcomed the fruits of the digital age.

Yet, the digital progress casts shadows. A key moment for me came when I read *The Shallows* by the writer and Pulitzer Prize winner, Nicholas Carr. He raises the question of how the internet has impacted us and our lives, and he paints a rather grim picture. As I reflected on his argument, it sparked questions which have been on my mind ever since: Has the internet really changed how our minds think? And if so, are we becoming stupider, less aware and less mindful? Are our social relationships hollower because of social media? Do we feel lonelier? Will artificial intelligence take over our work and create hordes of unemployed? His observations really hit home. I began avoiding Facebook, started meditating, and dug out and dusted off my old CD player. Yet, these measures only reflect my own personal way of coming to terms with the digital age. Another way is with systematic inquiries into its positive and negative effects: How certain can we be that we know all its implications?

I was intrigued and eventually decided to tackle these questions in my role as a researcher. I wanted to avoid the pitfalls of navel gazing, which may result from being isolated within the paradigm of my field, Critical Organization and Management Studies. I wanted to assemble an interdisciplinary group of researchers to ponder the big issues of digitalization and discuss, reflect and learn as much as I could. Some of the results of these discussions are externalized and eternalized in the volume you hold in your hands, which will, in the spirit of the digital age, be distributed digitally as well. The following chapters reflect an important dimension of digitalization, namely, its ambivalence, ambiguity and elusiveness. In particular, the comic strips included as part of each chapter visualize the results of discussions and are the result of a stimulating collaboration between the arts and the sciences. My hope is that the combination of text and comics will make our ideas more vivid and perhaps more interesting and accessible to a broader audience, as digitalization concerns everyone.

I have come to the conclusion that a digitalized world is neither an evil that will eventually destroy our lives nor a panacea for all our problems – extremes seldom reflect the nuances and ambiguities of the bigger picture. What I learned in our discussions throughout the project is that the digital age requires mindful engagement, especially as the digital age encourages a certain degree of mindlessness. It is of vital importance to swim against the current of bits and bytes which challenge our proven analogue way of reflecting on what is happening around us. I sincerely hope this anthology prompts the start of a critical conversation about the digitalization of working and organizing. It has been an exciting and enriching scholarly, as well as social, experience, and this was made possible by our engaged research group: Magnus Andersson from Media & Communication Studies and co-coordinator of the project; Elizabeth Bjarnason from Software Engineering, who is also a co-coordinator of the project; Carola Aili from Educational Science; Johan Bergström from Risk Management; Kristofer Hansson from Ethnology; Carl-Henric Nilsson from Business Administration; Lars-Erik Nilsson from Educational Science; Calle Rosengren from Work Sociology; and Sverker Sikström from Cognitive Psychology.

This project and edited volume would have not been possible without the generous funding by the Pufendorf Institute as well as the help from the Pufendorf Institute staff, our visiting lecturers, guest researchers and all the others who participated in our events. Therefore, we would firstly like to thank the people at the Pufendorf Institute who have been of invaluable

assistance to us: Sune Sunesson, for being an appreciated source for discussing ideas; Gisela Ferré Aramburu and Eva Persson, for their assistance in all administrative matters; Bengt Petersson, for all technological issues and for his work with Eva Persson in creating the layout of this book. We also would like to thank our two guest researchers, Molly Wright Steenson, Associate Professor in the School of Design at Carnegie Mellon, and Melissa Gregg, who is the Principal Engineer and Research Director with the Client Computing Group at the Intel Corporation as well as the author of *Work's Intimacy* (Polity Press 2011) and the forthcoming *Counterproductive* (Duke UP). Molly gave us interesting insights into the future of digital technologies and presented how work can be understood in the Age of Big Data and Machine Learning. Melissa has been a great conversation partner and resource for bouncing our ideas to and for discussing new modes of work in digitalized environments. After six months of working together as a group, she enriched our project and brought in fresh insights. In addition to our two guests, we hosted many other guest lecturers who presented developments from their respective fields. We would like to thank Mikael Blomé (Ergonomics and Aerosol Technology, Lund University), Anna Foka (Humanities Lab, Umeå University), Johan Mårtensson (Humanities Lab, Lund University), Anders Eklöf (Education and Environment, Högskolan Kristianstad), Gudbjörg Erlingsdottir (Ergonomics and Aerosol Technology, Lund University), Boris Magnusson (Computer Science, Lund University), Ellen Anna Topp (Robotics, Lund University) and Maren Hartmann (Media and Communication, University of Arts, Berlin). We would also like to extend our thanks to the panellists who discussed the future of the digital age at our final symposium, Timon Beyes (Leuphana University in Lüneburg, Germany), Tobias Olsson (Lund University), Roland Paulsen (Lund University) and Margaret-Anne Storey (University of Victoria, Canada).

It feels like the discussions had only just begun when we disassembled, and indeed, it is a core value of the Pufendorf Institute to create and spark ideas that we can work further on. Other smaller and larger projects have been formed to explore the digital age in greater depth, and thus, we continue the conversations.

Stephan M. Schaefer
Malmö, November 2017

Introduction

Stephan M. Schaefer, Magnus Andersson,
Elizabeth Bjarnason and Kristofer Hansson

Digital technologies have changed and will continue to change the way we think, live and work. Since the first internet browser was introduced in 1993, internet use has exploded worldwide. By the end of 2015, a total of 3.2 billion people were using the internet (an increase from 400 million in 2000), of which 2 billion were from developing countries (ICT 2015). The spread of internet use has been accompanied by an intensification of computing power leading to the improved potential of new computing algorithms. An estimate calculates that, from 1988 to 2003, the speed at which computers could solve problems has multiplied by roughly a factor of 43 million (Holdren et al. 2010). Such an increase in computer power in combination with the improved possibilities of digital technology has decreased the cost and physical size of computing components, which has had a visible impact. Amongst other effects, it changed, and will continue to change the way we learn, communicate, travel, consume and work.¹ These experienced and expected transformations require scholarly efforts to explore, interpret and conceptualize. Therefore, the overall aims of this book are to provide a multidisciplinary

¹ Examples of learning are eLearning, MOOCs (Massive On-line Open Courses, Wikipedia), communicate (social media, Skype), travel (eTickets, navigation systems) consume (online shopping, B2B e-commerce) and work (automatization, artificial intelligence).

insight into *how digital technologies affect the work of certain professions and to suggest possible analytical conclusions.*

The information technology researchers, Erik Brynjolfsson and Andrew McAfee (2014:9), write that digital technologies are “the ones with computer hardware, software and network at their core”. This definition is a valid starting point but obviously needs to be more specific. The concept of digitization is helpful in this regard. *Digitization* turns analogue information into a stream of bits to be processed by computing technologies. These discrete units of data can be easily grouped together and moved around by means of networks. Data bits can be remixed, re-assembled and re-presented in a split second; hence, information can be shared simultaneously and instantaneously across many different devices through network technology. An important aspect is the changing or manipulation of an object or subject by means of digitization. Digitization enables ‘time–space compressions’ (Harvey 1990), which refers to the breaking down of temporal and spatial barriers. Time–space compression produces globalized information flows in the economic, political, cultural and social spheres which have paved the way for fundamental changes in the consumption and production of information (Crary 2013). Moreover, digitization has led to the ability to replicate, distribute and store infinite amounts of information with few limitations. However, the social context is also an important factor, as technology is interpreted and adapted locally (e.g. Barley 1986; Prasad 1993). Digital technology thus refers to an individual’s as well as an organization’s use of tools and equipment for the processing, dissemination and representation of digitized information to affect change within a specified social context on a living being (human or otherwise), a symbol or an inanimate object.²

Digital technologies appear to have the same far-reaching effects as the introduction of general-purpose technologies such as the steam engine, electricity or the internal combustion engine, which scholars refer to as the facilitators of the first respectively second ‘Industrial Revolution’³ (Gordon

² The definition of technology is inspired by Sociologist of Work Charles Perrow, who defines *technology* as “the actions that an individual performs upon an object, with or without the aid of tools or mechanical devices, in order to make some change in that object. The object, or ‘raw material,’ may be a living being, human or otherwise, a symbol or an inanimate object” (Perrow 1967: 195).

³ The steam engine (1750–1830: First Industrial Revolution) or electricity,

2012). We can thus feasibly speak about an increasing trend to digitalize work and organizing processes. To capture these developments, we employ the umbrella term, *digital age*.⁴ In our view, ‘digital age’ denotes the widespread diffusion of digital technologies, whereas ‘digitalization’ refers to the changes it leads to in technical, cultural, economic, ecological, ideological and societal spheres.

As we show in this book, the digital age has ambivalent ramifications on work and organizations. Rosengren, for example, shows in chapter 4 how a new digital tool in home care services enables the collection of detailed data about work processes and facilitates easy documentation processes, while at the same time, such data can be used for the close surveillance of work efforts and the design of a Tayloristic division of labour. In chapter 3, Schaefer describes how a social media application provides freedom for professionals to work anywhere, but at the same time, blurs private and work spaces. Similarly in chapter 1, Bergström illustrates that, although mobile phones may lead to better accessibility, they also add work tasks and problems for staff on a surgical ward. These examples support our contention that digital technologies truly are a double-edged sword. Hence, to explore the ambivalence of digital technology, a multiplicity of perspectives is crucial. A plurality of perspectives helps us study the implications of the implementation of digital technology and its effect on working life.

Combining knowledge bases and perspectives from multiple disciplines can facilitate a holistic, critical and innovative investigation of the transformational potential of the digital age on working and organizing. At the very least, a dialogue between different disciplines can bring to the surface contentious issues, and at best, can lead to ‘creative abrasion’. Such collaboration exposes and amalgamates different perspectives and interpretations of transformations in working life that we may only be seeing the beginning of. Our hope is that this book helps as a conversation starter

respectively, the internal combustion engine (1870–1900: Second Industrial Revolution). (Gordon 2012)

⁴ Scholars have used various labels to describe the changes ascribed to digital technologies such as the ‘Third Industrial Revolution’ (Gordon 2012) or the ‘second machine age’ (Brynjolfsson & McAfee 2014). We chose the neutral term, ‘digital age’, as it (i) does not rank technological developments according to different stages (first and second machine age) and (ii) does not pre-evaluate any developments as revolutionary.

within, across and outside academic disciplines. We dedicate the rest of this introductory chapter to the description of our scenario method, which acts a methodological superstructure for the various chapters. We also discuss the logic of the book sections with a view to the content of each contribution and conclude with a brief insight into and reflection on the common themes we encountered in this collaboration.

Scenarios as a method paired with graphic illustration

The complex relationships of technology, organizations, individuals and social context pose analytical and methodological challenges. In the spirit of a critically inspired hermeneutical approach, we focus on the encounter between socially embedded agents and technology. Our knowledge interest is hereby hermeneutical and emancipatory rather than technical (Habermas 1968). A hermeneutical knowledge interest focuses on a mutual understanding between disciplines and between disciplines and a broader audience. Additionally, an emancipatory knowledge interest aspires to critically reflect and discuss existing knowledge and empirical observations. An interpretative and emancipatory view on digital technology suggests that a dynamic, processual approach produces different configurations which amalgamate objectified macro-level institutions and technological determination as well as micro-level interpretations. Thus, we neither adopt a deterministic perspective nor a neutral perspective on technology but rather draw inspiration from what Communication scholar Leonardi (2011) refers to as the “imbrication of material and human agency”. Social institutions, human agency which comprises habits, routines and judgement (Emirbayer & Mische 1998), and the material affordances of technologies provide our analytical backdrop. Such a theoretical framing inspires our methodological choices, which we refer to as a ‘scenario methodology’.

A scenario depicts the interrelationship(s) of individual agent, digital technology, and the professional and organizational context. However, scenarios are not exact re-presentations of empirical instances, but rather are empirically substantiated and stylized narratives akin to what Geographer Bent Flyvbjerg (2001:77) calls “good examples”. According to Flyvbjerg (2001:12), research needs a “systematic production of exemplars” which ground and anchor subsequent exploration. In our case, each scenario may

offer limited insight into the digitalization of work and its complexity; yet, in concert, the scenarios reveal tentative, productive patterns and interpretations of contemporary transformations in working life.

Our scenario methodology rests on three pillars: empirical inspiration and substantiation, multi-disciplinary substantiation, and graphic interpretation. To produce a scenario, the members of the research team conducted multiple, parallel empirical studies. The empirical *unterbau* of the scenarios described in the chapters of the book range from large-scale observations and dozens of interviews to one-day shadowing to small-scale focus groups. This empirical material provided and corroborated the scenario's topic, namely, the general experiences of individuals and common organizational practices. The entire research group frequently discussed the empirical material and suggested scenarios in joint seminars. Thorough discussions, these provided a transdisciplinary framing and input for the scenario. They refined ideas, explicated narratives and generally validated initial storylines. One could say that a scenario was put through repeated multidisciplinary 'stress tests'. A further significant aspect of the scenario methodology was our collaboration with Maja Lindén, an artist who provided an outside perspective on how a scenario could be graphically illustrated. As an expert in creative and communicative expression, Lindén offered another perspective, which was considered in the dialogue with the researcher. She would raise questions such as, "What is interesting here?", "How could the scenario be concentrated into a few frames?" and "What are the key aspects, and how could they be graphically communicated?" As an artist, Lindén had relatively free reign to interpret our case studies and transform them into graphic narratives. The chapters presented in this book include graphic illustrations sketched by Maja Lindén in the form of comic strips which reflect each of our scenarios and complement the traditional text-based form of re-presenting research findings.

Overview of the Chapters

In addition to its emerging and dynamic character, a common thread that weaves through the book is the ambivalence and context-dependency of digital technologies. Our ontological assumptions rest on the idea that work and organization is an ongoing and emerging accomplishment rather than a static, closed fact. To capture the dynamic, processual character of

digital technologies in organizations, we chose to draw upon the idea that organizations are not static entities but rather the ongoing, emergent accomplishments of social relationships, materiality and institutional frames (Tsoukas & Chia 2002). Therefore, we have chosen labels for the different sections of the book which reflect the processual, dynamic character of digitalization. The book's three sections, which include two chapters respectively three chapters, are labelled accordingly: Organizing, Monitoring, and Blurring. These captions denote the overarching dimensions we explored in our discussions of digital technologies and processes of work and organizing.

The first section, 'Organizing', discusses how digital technologies transform relationships between technology, actor and context. The risk management researcher, Johan Bergström, describes a scenario where mobile technologies reconfigure established work processes. In particular, he describes how an anaesthesiologist working on a surgical ward carries multiple mobile phones which all serve different purposes. Bergström refers to the multiple mobile phones as 'clumsy technologies'. *Clumsy technologies* do not only facilitate work but also add works tasks and workloads that actors need to cope with and adjust to. The phones may facilitate communication, but they also increase complexity and workload. In addition to this scenario, Media and Communication Researcher Magnus Andersson provides a scenario of how realtors' work has become aestheticized and argues that discussions of digitalization need to consider the intertwining of social and technological dimensions. In the case of realtors' work, viewing homes as status objects for self-realization determines the use of technology, while at the same time, digital technology provides the basis for persuading potential clients that the home is a desirable object. In chapter 3, Organizations and Management Studies Researcher Stephan Schaefer writes about what might happen when social media is used for organizational and personal communication. He depicts a scenario which involves the social media platform, Workplace by Facebook, which is a Facebook application created for professional organizations. He argues that social media has far-reaching consequences on processes of organizing in regard to its affordances of visibility, persistence, editability and association.

The second section entitled 'Monitoring' comprises two chapters which illustrate the relationship between digitalization, quantification, and the need to break rules. Here, Sociologist Calle Rosengren describes the

effects of the implementation of the 'Mobipen', a new digital work tool in homecare services. The Mobipen creates the possibility to govern work processes more efficiently by automatically linking to a documentation system. Yet, it also generates data that can and is used to tightly control the work of the homecare service employees. In his scenario, Rosengren shows how this leads to strategies for escaping and resisting the rigid work regime established by digital technologies. In chapter 5, Software Engineering Researcher Elizabeth Bjarnason and Stephan Schaefer discuss how quantification supports 'gamification'. One area of quantification can be found within trucking: Elaborate digital systems allow for the monitoring of different parameters, for example, fuel consumption or driving routes. In their scenario, Bjarnason and Schaefer describe how lorry drivers engage in a game of who can use the least amount of fuel, which is meant to create 'fun' competition between drivers. However, competition such as this can also be regarded as a way of controlling work processes, which may result in negative effects on employees' stress levels and wellbeing.

The third section focuses on how social media blurs the boundaries between public and private spheres as well as boundaries between work time and leisure time. Ethnologist Kristofer Hansson and Elizabeth Bjarnason describe in chapter 6 how the use of Facebook complicates the relationships between nurses and their patients. In particular, they describe how a nurse is able to view the Facebook posts of a patient which are meant for the patient's social media audience, not her as a healthcare worker. The situational contexts, which usually separate people in a social network, are absent in social media; hence, when the nurse reads the post on Facebook, the context of private social media use and professional context collide, which compels the nurse to reflect and possibly act on the critique of her that she inadvertently read. This is what Hansson and Bjarnason refer to as 'context collapse', and they remind us of the professional consequences of an ongoing renegotiation of boundaries. Similarly, Educational Science Researchers Carola Aili and Lars-Erik Nilsson argue that teachers are compelled to break rules when digital technologies cease to function. They provide a scenario which depicts the dilemma of a teacher who bases her work on the availability of an internet connection, which in this case, has ceased to function thus forcing her to send her pupils home to access the internet, which in turn, violates the regulations that teachers are required to follow.

About this book and its origin

This volume brings together researchers from various disciplines such as the humanities, organization and management studies, sociology, media and communication studies, pedagogy, and engineering. It is based on the discussions and output of an 8-month-long interdisciplinary research project at the Pufendorf Institute at Lund University in Sweden. The project was distinctly explorative, which means that rather than working with strict project objectives, the group explored different issues and topics of how digitalization affects work and organization. Such explorations were complemented with presentations by experts from fields such as robotics, neurobiology and futurology who gave us good insight into and an overview of recent developments in their respective fields. The project also hosted two guest researchers who visited the Pufendorf Institute and collaborated with the group. The first visitor, Professor of Design Studies Molly Wright Steenson, highlighted trends and future scenarios in a digitalized world and discussed possible trajectories of the digital age. Melissa Gregg, a Cultural Studies researcher and currently Research Director at the Intel Corporation, visited for two months, where she discussed current developments in temporary work relationships with us. She also provided excellent input into our own scenarios and ideas. Additionally, the group collaborated with a graphic artist, Maja Lindén, who illustrated the different scenarios of this book.

The objective of this volume is not to explain or deliver a conclusive discussion of work and organization in the digital age, but rather, in the spirit of the Pufendorf Institute – to provide a forum for the incubation and expansion of novel ideas produced by multi-disciplinary groups – we aim to start a conversation which transcends disciplinary boundaries. The far-reaching implications of digitalization necessitate the collaboration of the natural, social and humanistic sciences to be able to grasp the effects of digitalization on work and organization. Thus, we regard the collection of chapters in this volume as a way of initiating thoughts, discussions and reflections about what professionals in organizations are experiencing and what we might expect to happen in the future. We would like to encourage further studies to focus on the dialectic, ambivalent character of digitalization, as our work has shown that collaboration between the disciplines is essential. Although not all problems affect all disciplines, we still need to be mindful of the productive collaboration between disciplines.

However, collaboration between disciplines is hard work, as it challenges our taken-for-granted assumptions; therefore, interdisciplinary research cannot be regarded as a complete solution to our problems and must be approached carefully and productively. Nevertheless, it can lead to asking the right questions, challenging our assumptions, increasing our interpretative repertoire, revealing our ignorance, and eliminating redundancies.



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Chapter 1:

The Doctor is Always Available: Mobile Phones as Clumsy Technology

Johan Bergström

The research field of Human Factors and Ergonomics studies the interaction between humans and technology in often highly complex socio-technical work settings. Typically focused on high-risk work settings (the example in this chapter is from a surgical ward), scholars of Human Factors and Ergonomics tend to seek answers to causal relationships not in terms of reductionist measures of what or who are the failing components in a system failure but rather in terms of what conditions, interactions and relations shape, bind and constrain work in any given context (Hutchins 1995; Woods et al. 2009). This chapter is inspired by schools such as Joint Cognitive Systems Theory (e.g. Hollnagel & Woods 2005), Actor Network Theory (e.g. Callon 1986) and Sociomateriality (e.g. Orlikowski 2007), which all share the assumption that, when implemented in a work setting, technological artefacts become actors. As actors, they must coordinate their work by participating in teamwork with other actors. Sometimes technological artefacts make bad team players that are oblivious to, or even ignorant of, their teammates' needs, priorities and current focus of attention at that moment. The result risks becoming a coordination failure (Raymer & Bergström 2013) or a case of other actors needing to adapt their work functions and tasks to the behaviour of the technological artefacts (Cook & Woods 1996). Additional technological artefacts will interact not only with the human actors but also with existing technological artefacts. Con-

sequently, the implementation of any additional technology into an already complex socio-technical system will need to consider the work context in a holistic manner rather than treat the interaction between humans and the ‘new’ technology in isolation (Hollnagel & Woods 2005). Understanding how people and technological artefacts interact is key not only for creating well-coordinated teamwork between human and technological actors but also for identifying situations of mutual maladaptation – situations where actors’ adaptive strategies serve to preserve what are essentially brittle system structures and features (Branlat & Woods 2010).

In line with this, I present a scenario of how actors use portable phones¹ at a Swedish university hospital ward. I will analyse not only how such technology facilitates communication but also how it reconfigures the work and creates the need for actors to adapt to the technology – technology that is oblivious to the work context in which it is implemented and used. Drawing on the concept of *clumsy automation*, I develop an analysis of mobile phones as *clumsy technology*. The scenario involves shadowing an anaesthesiologist during his/her shift on a paediatric surgical ward at a Swedish university hospital and logging all of his/her phone calls during this time. In total, during a standard, daytime working shift starting at 07:30 and ending around 16:30, the anaesthesiologist received a total of 21 calls. As described (see introduction), the scenario is a stylized representation of the events experienced during the shadowing, and I make reference to my empirical observations throughout the text.

Using portable phones on a surgical ward

In this scenario, Jonas, an anaesthesiologist, has many tasks and work functions to fulfil and does so through complex teamwork with several human actors and technological artefacts. Unlike the anaesthesiology nurse who stays near the patient throughout surgery and intervenes in processes relating to anaesthesia one patient at a time, the anaesthesiologist cares for several different patients in various stages of anaesthesia and surgery. The anaesthesiologist is (often simultaneously and over-

¹ Until recently, these were called ‘cordless phones’, but when the study was conducted, the phones were all mobile phones. For the purpose of this study, there is no functional difference between the two, and in the chapter, I will simply call them ‘portable phones’.

lapping) involved in planning the anaesthesia for scheduled surgeries the next day, meeting with patients in pre-operative talks, participating in the induction of general anaesthesia and ventilation to patients prior to surgery, planning when to induce certain drugs during the process of an ongoing surgery (with the anaesthesiology nurse and sometimes also the surgeon) as well as waking up patients and following up patients post-surgery. In this scenario, Jonas is also responsible for the allocation of anaesthesiologists to different operations on the ward (typically by assigning them a number of specified operating rooms on the ward) and for consultancy work on other wards (such as painkilling or the rapid induction of anaesthesia to complete certain procedures involving children, e.g. radiology).

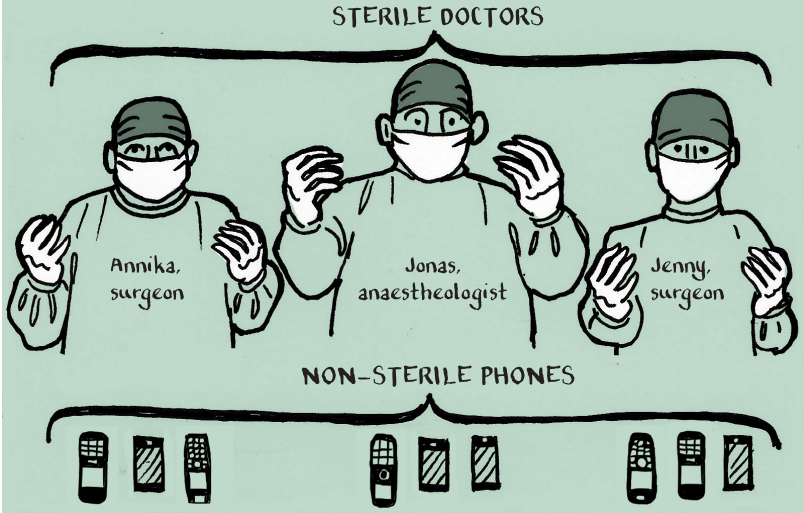
To synchronize such a complex web of activities, the ward relies on real-time communication through portable phones. Jonas carries three portable phones in his daily work on the operating ward: the personal work phone designated to him, the phone carried by the anaesthesiologist tasked with serving as the active head of planning in the group of anaesthesiologists, and his own, personal mobile phone. The two phones designated for work could potentially receive many types of calls of various degrees of urgency and importance relating to any of the aforementioned responsibilities. Calls are received regarding, but not limited to, the planning of future operations, the status of current operations (typically from the anaesthesiology nurse informing the anaesthesiologist that it is time to induce or wake up a patient), calls for advice from other wards, ongoing emergencies requiring immediate assistance, follow-up on previous operations, the information of/planning for emergency surgery for later the same day, questions of information regarding future operations (e.g. who will be the anaesthesiologist assigned for the operation), and calls for advice about painkilling on various wards.

Mobile phones as clumsy technology

My observations reveal certain specific features of the interactions with portable phones and the ways in which technology and staff mutually adapted. First, the anaesthesiologist's portable phones do not care about the nature of the work being performed by the anaesthesiologist at any given moment (e.g. whether the anaesthesiologist is wearing sterile clothing which makes touching a portable phone impossible or whether the anaesthesiol-

A DAY IN THE OPERATING ROOM

Three doctors are working today. They each have three phones (job phones for their different work roles and private phones). The calls can be very urgent, so the phones have to be answered at all times. The doctors are sterile and can't pick up their non-sterile phones.



SURGERY IN PROGRESS

Jörgen, enrolled nurse, is present to assist the operation and hand the doctors sterile tools. Jörgen is not sterile. That means he gets to answer the phones.



Hi, this is Jörgen on Jenny's phone. Jenny is in surgery. Can she call you back?



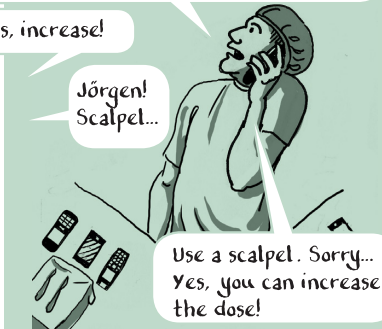
Hi, this is Jonas on Jenny's phone. Sorry, Jörgen speaking. Jonas' phone. What do you want?



Jonas, ward five wonders if they can increase the dose? The patient is in pain.

Yes, increase!

Jörgen!
Scalpel...



Use a scalpel. Sorry...
Yes, you can increase the dose!

SCALPEL!

Scalpel coming up!

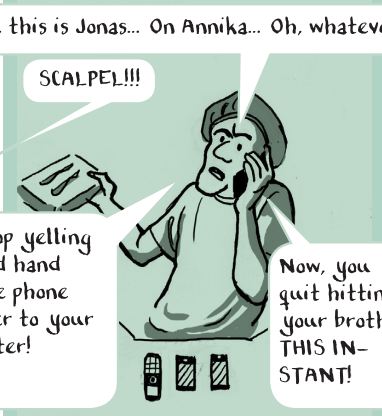
Oh no...



Hi, this is Jonas... On Annika... Oh, whatever...

SCALPEL!!!

Stop yelling and hand the phone over to your sister!



Now, you quit hitting your brother THIS INSTANT!

WE WILL HAVE YOU FIRED!

I know I'm not your mum, but you DO WHAT I SAY, or I'll scalp you...



ogist is currently engaged in a cognitively high-demanding task). Similarly, the portable phones do not consider the condition of the patient who has the attention of the anaesthesiologist at any given moment. On the day before the shadowing was conducted for this study, the anaesthesiologist under study was treating a patient who was suffering from a potentially life-threatening condition during the induction of anaesthesia (i.e. vomiting, thus potentially blocking the airway) at the same time as call was received regarding another critical situation. The critical nature of the anaesthesiologist's current situation was difficult to communicate over the phone. Lastly, the portable phones studied in this scenario do not have any way of communicating the level of urgency of the call. All incoming calls used the same signal.

These three features can be summarized as the portable phones acting in a manner which is insensitive to (or even ignorant of) the context in which they are situated. While decreasing the *physical* workload for Jonas, Annika, Jenny, Jörgen and their colleagues (who now do not have to run around the ward looking for each other in order to communicate), this insensitivity to context runs the risk of creating an additional *cognitive* workload (an increase in the mental effort necessary to carry out a task) – especially during critical situations where the workload is already high. This consequence of technology is what Wiener (1989) refers to as *clumsy automation*. Cook and Woods (1996) argue that the implementation of clumsy automation forces human actors to adapt to the technology by introducing new work functions and coping strategies, and I will discuss such strategies. While mobile phones may not automate work, I suggest that in this scenario they rather become actors of clumsy technology with the same need for the introduction of new work functions and coping strategies as with the case of clumsy automation. There are several ways in which actors at the studied paediatric surgical ward adapted to the effects of their clumsy mobile phones. In the following, I outline such strategies and detail how they change the nature of work.

The clumsiness of the various portable phones carried by Jonas creates a situation where he (for various reasons, but usually because he is using both his hands for a particular medical procedure and/or that he is wearing sterile clothing for a particular medical procedure) *must* answer all the incoming phone calls but *cannot* physically pick up all the calls. The usual way of dealing with this apparent problem is to make sure someone else is in the room who can always pick up any of the phones on Jonas' behalf. Of

the 21 phone calls studied during the shadowing, someone other than Jonas picked up six calls. The phones are typically placed in a specific location (e.g. the end of the bed or on a nearby table) before initiating a medical procedure, but sometimes a nurse or assistant nurse is simply asked to take the phone from Jonas' pocket and answer. The person answering the call will then ask about the nature of the matter and if it would be possible for the anaesthesiologist to call back later – remembering to do so then becomes yet another cognitive task for Jonas. During complex surgical procedures with several actors involved (surgeons, nurses, anaesthesiologists), anyone in the room who is in non-sterile clothing (in this scenario, Jörgen) may become responsible for running what almost looks like a communications centre, with up to five or six phones lined up to attend to and answer. This role is not described in any formal, written procedure or role description but is the result of the necessity to adapt to clumsy technology through the establishment of new work functions and tasks.

Another adaptive strategy used by Jonas is to make sure that the three phones are all placed in different pockets – and kept in those same pockets during every work shift for the sake of continuity. This way, by simply hearing which phone is ringing, the anaesthesiologist can make a preliminary estimate about the nature of the call.

There is no ideal way for Jonas to adapt to the fact that the phone might ring during a high-cognitive demand situation. Even when someone else in the room answers a call, the call becomes a work interruption for the anaesthesiologist who needs to determine if it is an urgent or critical matter, and then remember who to call back later and why. Because of how the work in operating rooms is designed, incoming phone calls will always interrupt ongoing work – calls which are oblivious to the nature of the work being interrupted. Therefore, today, mobile phones are an example of not only clumsy technology but also a (new) moral duty of care – which is to always accept an interruption.

Conclusion

In this chapter I have introduced the idea that technology implemented in a work setting becomes an actor in a joint cognitive system of other actors. Using the scenario of how mobile phones are used on a Swedish pediatric surgical ward, I have given examples of both how people adapt by introducing new work functions as well as the clumsiness of a technology which

eases physical demands but introduces high cognitive demands (especially when one's workload is already high). I have also shown how this particular technology configures actors (anesthesiologists) with a moral duty in their profession – to always accept an interruption.

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Chapter 2: Embellished Texts and Homely Homes: Affective Dimensions of Realtors' Work

Magnus Andersson

Real estate agents today do more than simply connect the buyers and sellers of properties. They also promote the idea of home and reinforce the idea of a dwelling as an essential aspect of life – home as identity. Thus, real estate agencies turn up in variety of contexts linked in one way or another to homes and homeliness: Estate agencies run cafés,¹ open lifestyle boutiques² and will most certainly be present on social media. This development means that a real estate agent's repertoire of work tasks is expanding and certain aesthetic skills, judgements and practices are important in their work. The present chapter discusses this development and the role that digitalization plays in it. The arguments presented are based on a case study of real estate agents who have witnessed this professional transition over the past 30 years. The data consists of interviews with two senior realtors and the lecturer of an education programme for real estate agents. For contextual reasons, I have also studied the web presence of various real estate agencies and trade organizations. My point of departure in cultural studies makes the production of meaning and its contextualization a salient feature in this approach (cf. du Gay 1997).

¹ See <http://www.landgren.com/om-oss/cafe-landgren>

² See <http://bo-laget.se/webhp/home/butik.php>

As white-collar professionals, real estate agents' work is affected by digital technologies in different ways – some more remarkable than others. Experiments with viewing homes in virtual reality have been carried out but with limited success. In contrast, so-called real estate property management software systems, which handle all aspects of administrative paperwork, are crucial for agencies' daily, routinized work practices. However, in this chapter, I focus on an entirely different aspect, namely, real estate agents' marketing practices – the presentations of homes for sale and how these practices are changing in today's digital age.

A profession in transition

One of the main tasks for realtors is to connect buyers and sellers. Scheduling viewings and communicating via various media outlets are important ways of achieving this – and are just as true today as 30 years ago. Yet, there are differences. In the 1990s and before the breakthrough of the internet, real estate agents advertised their listings in local newspapers and in the windows of the agency. Due to the cost of newspaper ads, these adverts were brief, prioritized functionality and may have even lacked a photograph. Consequently, the real estate agents spent much time on the phone answering questions regarding the standard of each listing's interior and exterior. The feature of the telephone as a communication medium, including its associated social conventions, meant that thorough discussions about the listing's appearance and other aesthetic qualities were often lacking.

Today, the advertising practices of realtors are mainly digital and thus reflect significant change: The adverts have expanded and allow for many pictures and extensive descriptions. An internet property portal such as Hemnet (www.hemnet.se) is particularly interesting in this context. It is partly owned by a trade association of real estate agencies who claim to have about 2.8 million individual visitors per week making it one of the most visited websites in Sweden. The number of visits greatly exceeds the number of homes sold, which reflects that viewing homes online is a highly popular media practice, as it engages more casual browsers than serious prospective buyers.³ A key to its success is that the portal contains all homes for sale in Sweden regardless of which real estate agency has been hired to

³ In popular discourse, the expression for this practice is “Hemnet junkie” (Hemnetknarkare).

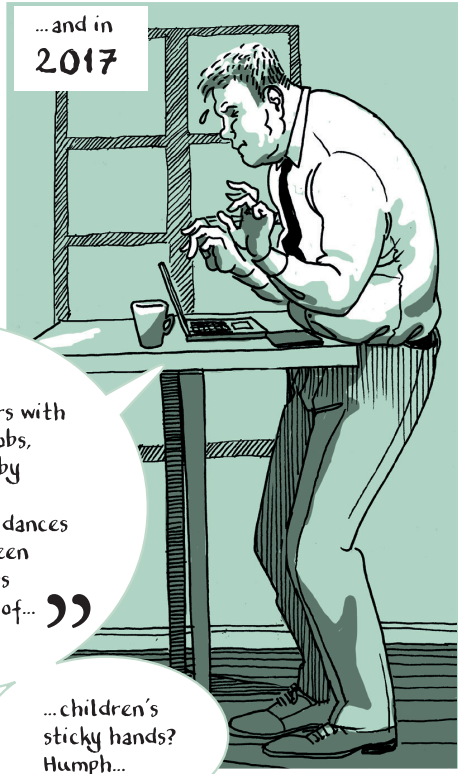
Workday of an estate agent in
1997



Kitchen cabinets?
Green doors,
slightly worn...

70's knobs in
orange plastic, yes...

...and in
2017



” Cabinet doors with
bright orange knobs,
lovingly handled by
mothers...
The morning sun dances
over the moss green
paintwork with its
endearing patina of... ”

...children's
sticky hands?
Humph...

represent the sale. Right from the start in 1998, the site focused on two things: the visual (i.e. it shows many pictures) and easy navigation. This means that real estate agencies must provide images and accessible, yet appealing, texts. This can be seen as the first step towards the aestheticization of the profession, where prosaic descriptions and close-up images of styled interiors are becoming the norm. When browsing the Hemnet portal, one can easily find examples of linguistic embellishment and narrativization:

The long rooms and the garden's secluded green hideouts are characterized by the interplay of sunlight and shadows. The illuminated and the dusk. Light reflects on the green leaves. Rays of sunshine on the floorboards. ... The house by the sea has been in the family since 1916. One hundred years is a prodigious perspective.⁴

Aestheticization

Naturally, one can argue that marketing and sales have always relied on persuasive rhetoric and seductive visuals as food for the imagination. Nevertheless, I argue that today's marketing has certain aestheticized and affective dimensions that have never been seen before. The promotion of home and homeliness, partly at the expense of the 'straightforward' advertising of individual objects, is one example. Moreover, in the pre-digital era, the leaflet of a home for sale consisted of one page filled with descriptive facts, while today, it is a neat booklet of images and narrativized descriptions.

In the 1990s, Economists Donald McCloskey and Arjo Klamer argued for the acknowledgement of talk as a significant aspect of the economy in their claim of a "persuasion economy" (1995). Meanwhile, in sociology, certain scholars were discussing the increased production of signs, aesthetic reflexivity (Lash & Urry 1994), the "aestheticization of everyday life" (Featherstone 1991), and the new significance of images in the construction of identities and lifestyles (Jansson 2001). Their argument is that due to design all artefacts, even those which are functional, like kitchenware, have an increasing symbolic value and are thus becoming part of socio-cultural hierarchies based on taste. On the same topic, although from the per-

⁴ http://www.uppvik.nu/assets/upload/Husbilder/1320_Ornahusen/1320_ornahusen.pdf (My translation)

spective of production, several scholars have discussed affective, immaterial or emotional work (Hochschild 1983; Hardt 1999). These related terms, which have roots in the Marxist tradition as well as feminist theory (Gregg 2009), refer to work or aspects of work aimed at producing (emotional) comfort and conviviality in contrast to material artefacts. It is usually applied to the service industry, healthcare work and domestic work with the purpose of highlighting invisible competences or hidden aspects of the work as well as the underlying gendered structure (Gregg 2009). However, affective work, and its base in the immaterial production of conviviality, also throws light on what real estate agents want to achieve when they produce representations of homely homes.

Digitalization facilitates aestheticization and the affective dimension of work in explicit and implicit ways. For example, on a particular level, digital technologies provide a broad range of tools for aestheticized work: software for word processing and graphic design, smartphones and their applications, digital cameras, et cetera. Estate agents must know how to use these tools, and perhaps even more importantly, they have to master the content. They must know which linguistic embellishments are associated with which type of atmosphere and are most appropriate in any given context. This means that, aside from knowledge about real estate property, economy and law, today, an estate agent needs to know about taste, affect and certain socio-cultural distinctions. They must also understand signs, communication and the construction of meaning. Real estate is no longer strictly an economic affair – it also takes cultural competence to sell a house.

Digitalization is also related to the aestheticization of estate agencies work more implicitly. In particular, this pertains to a powerful discourse rife within the middle classes, where an aestheticized home is a significant aspect of self-realization (Ulver 2008). This discourse is shaped and reproduced by so-called lifestyle media: glossy magazines, interior design blogs and TV programmes about properties. Also, Hemnet and the social media accounts of real estate agencies, including their associated sharing practices, are important factors in the reproduction of this discourse in addition to the cafés and lifestyle boutiques run by estate agencies. Digital technologies make the discourse ubiquitous; reminders flow in social media and the Hemnet site is now accessible via a mobile phone app. One of the keys to the interconnectivity between the media discourse and estate agencies is the (contemporary) ambiguity of the home – at one and the same time it is an intimate space and a financial asset (Bruce & Druick 2017).

Conclusion

The development of the realtors' profession, from answering practical questions over the phone to producing embellished texts for the internet, may be analysed from different angles and theoretical backgrounds. My focus here was to focus on estate agents' aestheticized practices and affective work, which in turn, have been put in the perspective of overarching social structures such as aestheticization and the persuasion economy. In line with this, the main argument of this chapter is that it is important to decentre the technology (cf Morley 2009) and focus more on the intersections of digitalization. It should be considered that digital technology is too often the starting point when digitalization is discussed in public, academic or social spheres – the disadvantageous consequence is that the technology determines the scope of the scenarios. To exemplify with estate agents, if we start our elaboration with the technology, then we will end up discussing the prospect of virtual or streamed viewings or other more likely, or less likely, technological developments. However, this scenario neglects addressing the idea that technology is shaped by the social as much as it shapes the social – and it is this mutuality that we should focus on. As Sociologist Judy Wajcman puts it, “Technology and society are ... enacted together in a moving relational process achieved in daily ‘doings’” (2015:33). Applied to the topic of this chapter, this means that technologies and social actors mutually constitute the professional world of estate agents and that this world is being constantly reproduced in estate agents' daily work, for example, in the writing of embellished texts and in the act of home staging to produce many attractive photographs to promote the sale of a home.

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Chapter 3:

This Does Not Feel Like Work: Social Media Technologies in the Workplace

Stephan M. Schaefer

Social media has become an integral part of our everyday lives. In 2016, 58% of individuals indicated that they use social media regularly and estimated that they spend on average seven hours a week visiting various social media sites. However, social media is used not only by individuals but also corporations, public institutions and civic organizations, which are appropriating social media at an increasingly rapid rate (McKinsey 2011). In 2016, 86% of Fortune 500 companies were on Twitter, 84% were on Facebook, 45% on Instagram and 97% on LinkedIn (Statista 2017). In Sweden, 51% of businesses employing more than 10 employees used social media such as Facebook, LinkedIn, YouTube, Instagram or Yammer in 2015 (SCB 2015). In this chapter, I present a case which highlights how social media affects the experience of individuals in professional organizations. This case focuses on the use of an increasingly popular social media app, Workplace by Facebook. Workplace by Facebook is an application for businesses which integrates the main features and functionalities of Facebook. The present case is mainly based on interviews with the users and administrators of Workplace by Facebook at a large financial organization. Later in the chapter, I draw on an affordance framework for a systematic analysis of the case, and I conclude with a brief discussion of how social media will impact work and organization as well as an outlook on future research.

An evening with Workplace by Facebook

On a rainy day, Heidi settles on her couch. She pulls out her mobile and pours herself a glass of wine. The clock shows 20:15. Heidi looks at the display and its clutter of icons. In the right corner, the characteristic blue *F* on a white background catches her eye, and next to it, a big greenish *W* – Workplace by Facebook. She clicks on the latter, and a timeline appears which is indistinguishable from her private Facebook timeline. Workplace was introduced to the company a year ago, and she remembers the first time she saw it. She was able to use it straight away, as she had already been an avid user of Facebook. The timeline, the status updates, and the ability to upload pictures and instant message were all the same. However, and Heidi smiles when she thinks about it, everyone was friends with everyone else – relief – as no friend requests need to be sent and thus no anxious waiting for the important people to accept them. She was enthusiastic about the introduction of Workplace: ‘What a fun way to communicate with everyone’, she thought. Selfies were uploaded, people shared articles and news, others created interest groups and invitations to events. Even her manager, who had been quite reluctant at first, seemed to enjoy sharing his wisdom and pictures with those in her team. Also, every Wednesday, the CEO would host a video link session where people could ask questions and chat with him. However, Heidi observed that during these sessions no one discussed the really relevant issues with him or wrote any negative comments. This was much different compared to her private Facebook where everyone seemed to have an opinion on every issue imaginable and the comment sections were always full. No, here, people seem positive, happy and smiley. It is during offline lunches that her colleagues usually feel more comfortable with discussing the issues that upset them. While lost in thought about Workplace, she scrolled through her timeline and suddenly stopped – a status update from the CEO. These CEO updates are always visible to everyone in the company, and no one can hide them from the timeline – the algorithm was merciless that way. During almost every lunchtime, Dieter from sales complained about the CEO’s propaganda. Heidi grinned and read the update from the CEO who proposed a new interdepartmental work process that would make the department’s financial reporting much quicker and efficient. Yes, just last week she gave a presentation about this very subject to him and his closest staff. But, wait – this *was* her idea, word for word, and with no credit to her whatsoever. No tag,

no text – nothing! ‘He stole my idea and published it for everyone to see. This is outrageous!’ She felt anger rising in her chest. ‘I should write something,’ she thought and started typing a comment, ‘so people will know the truth’, but she stopped to ponder the consequences. Everyone would see it. She would be totally exposed, and the comment would be there for all to see even in the distant future. ‘This is not the way to build a career,’ she thought and sighed. ‘Why did I have to open this stupid app? My evening is ruined,’ she thought as she clicked on ‘like’.

Affordances of social media

The previous scenario depicts various affordances of social media. The concept of affordance describes how “the meaning or value of a thing consists of what it affords” (Gibson 1986: 407). The Psychologist James Gibson’s idea of affordances challenges the notion that the external material world consists of purely physical objects which agents bring to life. Affordances describe how agency and materiality are mutually constitutive and restrictive. They link material constraints, individual agency and social norms and are relative to a context; for example, one person can stand on a table, but a hundred persons cannot. The properties of the table remain unchanged whereas the social situation changes. Accordingly, an affordance framework analyses social media neither wholly deterministically nor entirely voluntarily but as an entanglement of material and human agency. Communication scholar Paul Leonardi (2011) refers to such entanglement as “imbrication”. Together with his colleague Communication scholar Jeffrey Treem they propose four affordances in regard to social media: visibility, persistence, editability and association (Treem and Leonardi 2012). I will use these in the following to structure my analysis of the scenario.

Social media technologies facilitate the visibility of information about events, people and relationships. Those who may otherwise not get much attention can suddenly become noticed by many people. The protagonist, Heidi, in the scenario reflected on how people shared their updates, pictures, knowledge and so on. People were visible on Workplace by Facebook. She could partake in what was going on in different parts of the organization. When everyone has the opportunity to become visible, people start vying for attention. People strive to be noticed. In the scenario, the CEO sells another person’s idea. He wants to receive positive attention, but his post on social media infuriates Heidi. And given that the posts and

CHECKING THE FACEBOOK FEED ON A FRIDAY NIGHT!

This really doesn't feel like working.

Ah, a new update from the CEO!



I think he likes me...
He listened so attentively to my presentation last week...

Let's see what he has to say...



...

Actually, that's a BRILLIANT idea.

Seems so familiar...



HEy!

You
a*****e!



He just...

He just stole my
entire project idea...

...and called it his own!



...and as if that's
not enough I have
to "like" it ...

...or the'll all think I'm
not a team player...

comments are visible to everyone, Heidi's response will also be visible to everyone. Heidi considers this and decides that she would rather advance her career than rock the boat by openly challenging the CEO. Social media affords knowledge sharing about events and people's actions, but it simultaneously constrains agency through the fear of negative exposure and the potential damaging impact it may have on how a person is regarded by others, in addition to its effect on one's career prospects.

Content on social media does not vanish but remains online indefinitely. Social media sites keep virtual interactions long after they end compared to offline conversations, which are bound in space and time. This contrast is evident in the comparison between the Heidi's offline presentation and the CEO's online post. The presentation took place bound in time space, and often, no record will exist of what took place (other than possible meeting minutes). However, the CEO's update about "his" idea made it visible, and people were able to access it, while the memory of the presentation fades. The Heidi's negative reaction would also have remained on social media with the potential to be accessed again should it be necessary. Social media makes possible the continued existence of interactions, updates and so on. It assists in documenting behaviour and storing knowledge, but it also inhibits actions because people can be held responsible long after they took place.

Compared to face-to-face interaction and instantaneous communication, social media affords editability. Every word and status update can be thought through and carefully phrased before they are posted. The expectation of an immediate and spontaneous reaction like those of an ongoing real-life conversation is no longer the case with online interaction. Heidi reacted impulsively when confronted with the CEO's claim on her idea and thus began write her feelings, but she stopped and thought about the consequences of what she was doing. She decides to delete the text and 'like' his post instead. She was able to avert what she considered would be bad for her career prospects. Social media interactions enable such reflection. In contrast, editing texts before posting can purge interpersonal communication of its idiosyncrasies and authenticity. Dieter, the sales manager in the scenario, refers to the CEO's propaganda in online conversation thus exemplifying how edited texts only present the polished surface and hide the subtle signs of communication.

Social media creates social links and establishes associations. In this context, 'association' means when people are either associated with oth-

er people or with the content they post. Like a big family, the company initially associates everyone with everyone so that people do not have to request so-called friendships. The company wants to avoid associations becoming problematic, as some people appear to exclude or reject others when they do not accept their friend requests. It disables the affordance to make friends with the idea that people should be friends by default. This shows the context-dependency of affordances, as friend requests are a feature of the public version of Facebook. People become associated with content, which is exemplified here by the CEO associating himself with a new idea that he pilfered from Heidi. This association establishes the belief that he is the creative mind behind the idea, and it creates a positive impression. He could have associated Heidi with the idea through a tag or reference (thus giving some credit), but he did not.

Conclusion

Some scholars argue that we are witnessing the rise of the ‘social media paradigm’ (Burgess et al. 2017). Social media has indeed become ubiquitous in social and political spheres. People re-establish long-lost contact on Facebook, document their trips to exiting places like South America on Instagram for family and friends, and read and comment on politicians’ tweets. Similarly, the social media paradigm is also about to eclipse traditional communication processes in organizations. Increasingly more organizations are adopting social media strategies to stay relevant and improve internal communication. However, the question then arises of how this affects organizations and the people in them. The aforementioned scenario illustrates a possible snippet of organizational life in the social media paradigm and analyses various affordances of social media in organizations. In the future, scholars should continue to explore the fundamental issues that emerge when social media and organizations coalesce. To that end, multiple disciplines are needed to assess and explore the various dimensions and implications of social media technologies at work.

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Chapter 4: Adapting Reality to the Matrix: Digital Technology in Social Home Care

Calle Rosengren

The focus of this chapter is the Mobipen – a new digital work tool designed to capture and store the work-related data of field workers – with an emphasis on how it affects the work processes and situations of home care workers. Digital mobile reporting systems like the Mobipen have become an increasingly popular way to capture and communicate the tasks that have been carried out by workers in the field, for example, truckers, security guards, cleaners and municipal home care workers. These digital devices are marketed with claims that they can improve and secure the quality of the service conducted. The main heading of an information pamphlet by the service providers, Anoto, claims: “Digital pen and paper solution creates security for elderly”. In addition, it states that the Mobipen “enables care managers to get a precise picture of how the home help service is working, and makes it easier for elected councillors to ensure that money is being spent effectively”. In addition to an improvement in quality, these digital devices also claim to improve the safety of field workers by knowing the exact location of the personnel in case of emergencies (e.g. motor breakdown, robbery etc.).

At the same time, they present powerful tools for closely monitoring every move of the personnel. According to Tommy Tranvik and Mona Bråten (2017), there is evidence that the data could be used to gain tighter control over the workforce. This general process of the increasingly data-driven sur-

veillance of the worker is sometimes also referred to as ‘dataveillance’ (Selwyn 2015). Surveillance in the workplace is not a novel concept. However, the increasing availability of relatively inexpensive and easy-to-use technology enables employers to expand the range and scope of their control over their employees’ activities. This increased potential to monitor employee behaviour poses questions that concern where the borders for personal integrity are drawn and how this monitoring affects the social relationship between employer and employee.

To gain a richer understanding of how this technology affects both the work process as well as the communication and interaction between colleagues, clients and management, a minor case study was conducted. The case study was comprised of three interviews with both home care workers and management in a municipality in southern Sweden.

Mobipen: A system used in Swedish social home care

Social home care services comprise domestic aid chores such as house cleaning, daily shopping, nursing care, social contact and personal hygiene. In Sweden, 290 municipalities are responsible for the social home care of the citizens in need. In municipal home care, the possibility to capture and store the services conducted by the home care staff has been made possible with handheld digital devices – in this case, the Mobipen. The Mobipen is a digital pen with a built-in scanner function that scans, stores and analyses information for facilitating more efficient home care services. In home care, the pen is used for the mobile registration of the services conducted by the home care staff. In particular, it registers which member of staff has been to a certain customer’s home, for how long and what services were conducted. Upon entry to and departure from the customer’s home, a barcode on the door is “blipped”. The home care worker also uses a certain Mobipen sheet to note which services have been provided, for example, helping with food, medicine and personal hygiene. The services that a customer is entitled to and for how long is decided by a care administrator within the municipality management. The information gathered during each working day is then transferred via a certain docking station to a computer for further analysis and creating statistics. Management then uses this data for time reports, scheduling and documentation. According to the company, Anoto, today Mobipen is used in over 30 cities in Sweden, including Lomma, Sundbyberg, Karlskrona and Kristianstad. According to the same

source, 3000 pens are being used within social home care today (the study was conducted in spring 2017).

In the interviews, both home care workers and management highlight some positive aspects of the introduction of the technology, like how the data from the Mobipen can help demonstrate that work has been done in accordance with the service the elderly person is entitled to. At the same time, it was obvious that the introduction of the Mobipen also meant a more standardized and compressed working day, with little room for adapting time and resources to the complex and often shifting needs of the elderly. In this sense, the Mopipen leaves little room for the professional judgement of the home care personnel to decide how to best use their time and resources to tend to the clients' needs on a daily basis. However, according to management, the analyses of Mobipen data could help make work process more time efficient, as it is easy to compare how long certain timed activities would take between different home care personnel. A standard time could then be negotiated, and any potential slacking could be improved.

What gets measured gets managed

There is a saying that goes, “What gets measured gets managed”. Within the ever-growing possibilities to measure employee performance lies the temptation to break down complex jobs into simple ones – to find the one best way to get the job done. Much like the time and motion study developed by Fredrik Winslow Taylor to establish standard times for different work processes. In line with this Moore and Hayes (2017:112) describes the implementation of electronic monitoring systems within the homecare in UK as “an attack on both the relational aspects and quality of care, reducing it to a series of tasks in the Taylorist fashion”.

However, although something may be easy to measure, that does not necessarily mean it *should* be measured. The number of clients visited, emails sent and phone calls made are perhaps easy to measure, but they should not be confused with the value created for customers and citizens. Creativity and compassion may not be immediately visible, but these qualities are nonetheless essential for company success, or in this case, for the quality of life of the care recipient.

The rise of new digital technologies within all spheres of working life has meant that, to an increasing extent, the decision-making processes are influenced by software and predefined algorithms. According to Paul

You are kind, Sarah!
Thanks for listening to me...



What?
Listen?
No, no!

This was
ten minutes of...



...showering!

a SHOWER!



Boreham (2008), this process could entail a de-skilling of work and render professional judgement almost obsolete, with perhaps less control of the worker over one's work. In this case, to an increasing extent, the work was influenced by software and digital technology which reduced the decision-making process down to choosing from more-or-less predetermined categories. In this sense, fitting the complex needs of an elderly person living at home into predetermined and timed categories could result in a more standardized work process. At the same time, the process of appropriating the digital technology to a fuzzy and complex world requires active meddling. From this perspective, technology does not determine action but rather presents different lines of action. This may create a situation where the intended use of a technology is sometimes altered by the user. Regarding this adaptation, the user interprets and adjusts the technology for her own best practice. In relation to the illustration, this is portrayed as a supportive talk to a sad person in need of support that becomes a scheduled "ten-minute shower" when translated into the matrix.

Furthermore, reports from other sectors also reveal that the data have been used to closely monitor work process and discipline workers. In security companies, for example, there are reports of security guards who have been given formal warnings because it was claimed that they had not completed their inspection round as stipulated (Tranvik & Bråten 2017). In this sense, work conducted in the field which was previously mainly outside "the disciplinary gaze" (Foucault 1991) of the employer can now be recorded and transferred to centralized management for further evaluation. However, in relation to the direct surveillance that takes place on the shop floor of a factory, it is not always clear what kind of data is being gathered at any given moment or how it is analyzed and put to use (Rosengren & Ottosson 2016). According to Büyük and Uğur (2012), this uncertainty about whether one is currently under surveillance or not can contribute to feelings of always being monitored.

Although technology plays a central role in societal change and development, one should not jump to the conclusion that it is the driving force behind the increase in the monitoring and standardization of work processes. Rather, it is obvious that the reason for the popularity of investing in this technology is that it falls nicely in line with the current logic and principles of governance of public organizations – a logic often described in terms of New Public Management (Hood 1995). In relation to this, data from the Mobipen provides metrics, or "hard facts", that can be used

to hold professionals “accountable” to the public and also aid the public organizations in making rational, value-neutral and well-informed decisions. Rather than see the operation as a whole, a complex situation is chopped up and divided into smaller, measurable, demarcated and more manageable units that, in turn, can be timed and rationalized. The overall process of replacing professional intuition with the analysis of data as a ground for decision making is also referred to as *data-driven decision making* (Khalifa et. al. 2014; Provost & Fawcett 2013).

Conclusion

In 2012, Sweden’s municipalities spent 125 million euros on social home care services. The population of elderly people make up a large part of social home care recipients. This group is expected to increase to 30 percent of the Swedish population by 2030 (Han et al. 2014). Digital technology is seen as one way to secure quality for the citizens (many times referred to as ‘customers’) and create a more efficient work process. This positive view of technology can be illustrated by a quotation from the Swedish Association of Local Authorities and Regions: “For the customers, new IT solutions within home health services can contribute to increased safety and quality. This can also create an increased participation and influence” (SKL webpage 2017–10–24).

However, as new e-health technologies and systems are developed and deployed, different areas of concern surface. If the “messy” components of everyday life and the unpredictability of social life are not considered by the developers of the technology, then unforeseen problems will arise. In relation to this case, one area of particular concern is the aspect of the health professionals’ work environment.

The road ahead must involve professionals in the design of their tools so that it is not solely left to the engineers and software designers. As mentioned in other chapters of this book, developing new ways of working with participatory design is an important aspect not only for making jobs more enriching but also to provide better products and services to customers and citizens. However, it is not only the characteristics of the technology in itself that determine its impact on skill discretion and performance but also how it is implemented into different organizations (Boreham 2008). Furthermore, it is important that the debate continues about how to ensure that employees are not objected to over-intrusive monitoring and how to

use this digital technology to enrich jobs rather than deplete them of being able to exercise important professional knowledge and judgement.

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Chapter 5: Who's the Company's Best Driver? Technology-Driven Competition

Elizabeth Bjarnason and Stephan M. Schaefer

Today's widespread use of digital technology enables a quantification of work and production that goes far beyond the number of products produced in a factory assembly line or the number of work hours clocked up by employees. In a digital work environment, aspects such as the amount of time spent on an individual work task or a break can now be measured. Thus, digitalization facilitates obtaining real-time data in regard to production (in a wide sense) on a level which is highly detailed and extensive. This opens up the possibility for management to monitor and assess their employees' performance and efficiency in ways that extend beyond what have been previously possible. One example of this is the Mobipen system used by social home care workers to log how much time they have spent performing each work task, as described in chapter 4. Another example is digitalized fleets of commercial delivery vehicles; in the following scenario, the management of a trucking company uses digital technology to introduce elements of game playing and competition amongst the employees. We investigate how lorry drivers experience this and other aspects of the digitalization of their work environment by drawing on interviews and document studies.

While digital work environments support professionals as they perform their work, risks also arise in connection with the vast amounts of data that

these computer systems generate. One clear question relates to this – will this data impinge upon the workers’ personal integrity or be misused in a way that creates unhealthy work environments and conditions? A fleet management system can help lorry drivers save time and effort by proposing the shortest route that covers all of the planned delivery points. Simultaneously, the fuel consumption of the digitalized vehicles can be measured on any given day or driving route. This data is then made available to management, but the monitoring and assessing of employees down to this level of detail affects the workers’ relationship with management and can lead to less discretion and leeway for the employee to make professional decisions regarding how to best perform their work. In addition, there is a risk that if employees start viewing work as a competition, then this will have a negative effect on their potential to collaborate. Moreover, employee behaviour may change from taking responsibility for doing a good job to focusing on optimizing their individual performance so that it will fall in line with the quantified goals set by management. An interviewee described how this may lead to stress-related issues and even cause employees to resign and transfer to other companies that have a better psychosocial work environment.

The work life of lorry drivers

All major lorry manufacturers today including the Swedish companies, Volvo Trucks (2017) and Scania (2017), use digital fleet management systems to manage and monitor fleets of commercial vehicles such as lorries. These systems provide extensive data of the vehicle and its drivers and “enables [sic] a transport company to monitor the exact location and status of individual lorries and drivers” (Volvo Trucks 2017). This includes information about vehicle routes, and speed and fuel consumption. The driver’s behaviour, manner of driving and length of break times are also registered. The technology is used to support and help drivers, for example, take the most-efficient route or avoid blocked roads. Constant and continuous access to this data also enables the managing of a fleet of lorries from the office. Office staff can then directly support the drivers by informing them about changes to the delivery schedule or other useful information.

Management can use the information and data collected by the fleet management system to improve the overall performance and efficiency of their fleet (e.g. fuel consumption). Thus, the system “helps customers take

control of their fleets and get the most out of their businesses” (Scania 2017). These fleet management systems monitor each driver’s fuel consumption and driving patterns and can advise a driver on how to reduce fuel consumption while driving. The system also generates environmental reports that can be automatically sent directly to the customer of the lorries’ CO₂ and NO_x emissions, which can then be used to promote a fleet as environmentally friendly.

In our study, we found that some logistics companies set up competitions between drivers to encourage the efficient use of fuel. As the illustrations in this chapter show, this creates both winners and losers. The drivers who have a good day and come out on top in the competition win credit with their employers and coworkers. However, the drivers who do not perform as well may incur negative management attention and be required to work extra hours to improve their eco-driving skills. This kind of competition can reduce overall costs for a company; however, being pitted against other drivers can cause stress and anxiety among their employees (Gulliksen et al. 2015). One interviewee explained that this even results in some drivers leaving to work for other logistics companies that are reputed to provide a better psychosocial work environment.


Gamification and data-driven competition

Play is an essential ingredient of culture, and thinkers have discussed its role in culture formation and individual freedom for some time (e.g. Schiller 1794 [2000]; Huizinga 1938 [2004]). Influential studies of work show how individuals engage in gamification at the workplace. Sociologist Donald Roy (1959) provides a rich ethnographic account of how employees working in an intensely regulated, Tayloristic work environment invented their own games to break the monotony of work. However, in recent decades, scholars have observed a visible shift from the self-organized and self-sufficient development of gaming at work to prescribed and regulated forms of “fun and play” (Fleming 2009). While the former appears to be an authentic reaction to a tightly controlled work environment by forming subcultures, the latter uses fun and games at work as a form of less-intrusive but nonetheless effective means of control (Fleming & Sturdy 2009).

Management Scholar Ethan Mollick (2014), argues that the recent technology-driven gamification of work is indeed driven by management. Economic Scientists Hamari et al., illustrate that the use of gamification in

Drive a LORRY!


Live game with real drivers!



3

PELLE

It is early in the morning. Two lorry drivers arrive at work, ready to start their day. Choose your player and start competing for gold stars awarded by management!



3

CLAES

START!



Claes gets in his lorry and starts to drive, unaware of a patch of vomit on his right shoulder. To make up for lost sleep, due to newborn twins, he downs two large coffees.

☆

☆

☆

☆



Pelle is calm and confident. He also has a competitive streak and is aware of management pitting drivers against each other. He drives like an eco angel and gets a gold star!

☆

☆

☆

☆

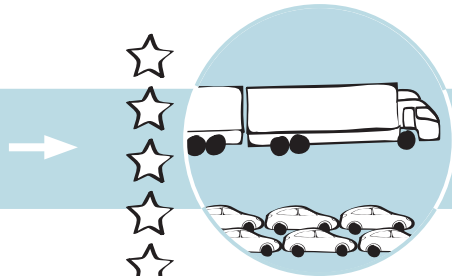
☆

☆



Traffic jam ahead, take detour!

Pelle picks up a message from management about a traffic jam on the motor way. He gets another gold star.



Pelle takes a detour and completes his day making good time despite heavy traffic. Pelle gets another gold star.

Traffic jam ahead.
take detour!

Waaaahhh!



Claes gets a phone call from his wife about needing a pram for the twins. He is distracted by the sound of screaming babies and misses a message about slow moving traffic. Claes loses a gold star.



Claes drives like a demon in order to get home to his family. He forgets all about the environment. Claes loses another gold star.



Claes gets stuck in a traffic jam, is hopelessly delayed and loses his final gold star.

Today's

Winner

Management's favourite!



6



PELLE

Today's

Loser

Extra eco-driving lessons outside of work hours.



0



CLAES

non-gaming contexts is increasing, for example, within education, commerce, health, social networks and workplaces. They provide examples such as point scoring, competition with others, and rules of play, which are then used as a way of “supporting user engagement and enhancing positive patterns” (Hamari 2014:3025).

The motivation of employees is one key aspect for gamification to achieve the outcomes desired by management (e.g. to improve the effectiveness of an organization). Within gaming, Bartle’s taxonomy of player types highlights four main sources of motivation to consider when designing a game, namely, achieving goals, exploring and discovering the unknown, being social, and winning competitions (Bartle 1996). The eco-driving competition in our example, illustrates a gamification of work life that may motivate employees who enjoy achieving and competing. Can this kind of competition have a reverse effect on other employees who are more socially motivated? For such employees, a team reward might be more motivating and encourage them to improve their eco-driving techniques by discussing these with their colleagues.

Management uses gamification as a means to achieve compliance with organizational goals, for example, by saving fuel when driving a lorry. This and other possibilities for management to enhance gamification are made possible as a result of digitalization. Via the various systems and digital devices that employees use to perform everyday work, digitalized work environments can collect detailed data on what work the users are doing as well as how they are doing it. An example of this is when transport vehicles equipped with location technology (e.g. GPS) allow the management of logistics companies to keep track of their lorries and specific deliveries. The technology is meant to support and help the drivers by, for example, sending them info about the most-efficient routes or where to avoid blocked roads. However, managers can also use the data that is generated by these systems to monitor their employers’ performance and efficiency. Our study found that some logistics companies use these systems to control the driving behaviour of their employees and introduce an element of fun and games by setting up competitions amongst the lorry drivers, thus easing the perception of management control. For example, the driver who uses the least amount of fuel each month may be rewarded and acknowledged as the company’s best eco-driver.

Employers can thus use gamification to drive behavioural changes in employees, for example, those regarding health and sustainability, and this

can lead to making the desired behaviour more socially acceptable (Hunt Stevens 2013). This results in a desirable outcome and efficient engagement with work practices. However, some employees may experience (negative) social pressure to participate and conform to behaviour for which they are not intrinsically motivated (Hunt Stevens 2013). In light of these cases, it becomes clear that the gamification elements may not have been designed with all types of employees in mind. Moreover, the concept could also be potentially misused by management. For example, when technology-driven competition is used to optimize individual performance that extends beyond the drivers' control, this can lead to stress for drivers who do not perform well in these so-called games. This is why we believe it is important to involve the employees in participating in the shaping their work environment. Empirical studies have shown that when employees consent to and are involved in the design of gaming elements, this has a positive effect on work processes. Alternatively, when work lacks such consent and participation, the employees' levels of motivation and engagement decrease (Mollick 2014).

Conclusions

Digital technology provides powerful tools for supporting and enhancing work performance and efficiency, but it also presents many challenges in regard to how to use these new possibilities while retaining a positive psychosocial work environment. In particular, we highlight the risks presented by the vast amounts of data collected on employee performance and behaviour, which are generated by digital systems. While this data can be used to monitor and improve the overall performance of a workforce, aspects such as employer integrity and professional freedom also need to be considered to ensure a healthy digital work environment.

Gamification elements can be useful in encouraging certain behaviours and improving a business or organization's effectiveness. However, it can also be used as a form of control that forces employees to engage in management's own version of "fun". Therefore, it is important to consider how the game is set up and played. To ensure that the employees' perspectives are considered, important stakeholders should be involved in the design of the systems being used for gamification purposes. This includes not only employee consent concerning the data that these systems generate but also suggestions about possible features of the system (Feenberg 2002). Trans-

parency regarding who is using the data and how it is being used is important when creating a good digital work environment – an environment that provides the advantages of digital technology while combatting and avoiding the risks involved.

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Chapter 6: Context Collapse in Healthcare: When the Professional and the Social Meet

Kristofer Hansson and Elizabeth Bjarnason

The digitalization of society affects healthcare in many ways. One strong driving force is the possibility for digitalization to make healthcare more effective, and as a result, curb the accelerating costs associated with modern healthcare. Medical developments and changes in the age structure of society are often highlighted as reasons for these cost increases, which have been a growing problem for healthcare for some time. In the 1980s and 1990s, healthcare providers began to remedy this issue with both economic models and organizational models taken from cases found in the private sector (Hansson 2006). One recent example is the model for lean production borrowed from the car manufacturer Toyota and then used to create accessibility to healthcare for patients. In recent years, the increasingly rapid developments in digital technology are seen as a possibility to rationalize and cut costs within healthcare while retaining good and accessible healthcare. Healthcare can thus be seen as part of, and influenced by, what is in the introduction called the 'digital age'. In this digital age, new digitalized hardware, software and networks provide novel and beneficial opportuni-

ties, while at the same time, cause difficult challenges in connection with the digitalization of healthcare (Brynjolfsson & McAfee 2014:18–19).¹

If we are indeed now entering the digital age, then how will that change the work performed in healthcare? In this chapter, we provide a case description of one of the challenges of digitalization as faced by nurses working in the high-tech environments of our modern hospitals. Our case pertains to the care meetings that nurses have with their patients.² These meetings take place in hospitals, clinics and virtual hospitals. Two problems are presented and discussed in this chapter; namely, (1) how professional expertise is challenged by the knowledge that patients and their relatives can obtain through the internet, and (2) how social media challenges the relationship between the professional and the patient (and their relatives).

For our study, we interviewed four nurses based on a questionnaire with open questions. Questions such as the following were asked: What digital technologies are you working with today? How do these technologies affect your relationship with patients and relatives? How has the use of digital technology changed the boundary between work and leisure for you? The interviews were not recorded but rather were summarized in four or five pages of text. The nurses have read the summaries and were able to make comments.

When nurses and patients meet

Today analogue technology converges (Jenkins 2004; Olawuyi & Mgbale 2012) with the digital technology at the hospital and with the digital technology that patients use at home. For example, when medical records are digitized, this creates opportunities to converge the system into other systems and technologies at the hospital and in the patients' home. At the hospital, a patient's medical record can be integrated with the monitoring system, but it can also appear on different digital platforms such as the

¹ In this chapter, we discuss digital technology, but it can be related to the term 'eHealth' and the studies that have been conducted in the field (Eysenbach 2001; Wingner Leifland 2017). With digital technology, we aim to gain a wider perspective.

² The analysis in this chapter is presented in the article, "Det digitala arbetslivet: Digitalisering av sjuksköterskeyrket", in the journal, *Budkavlen* (Hansson 2017).

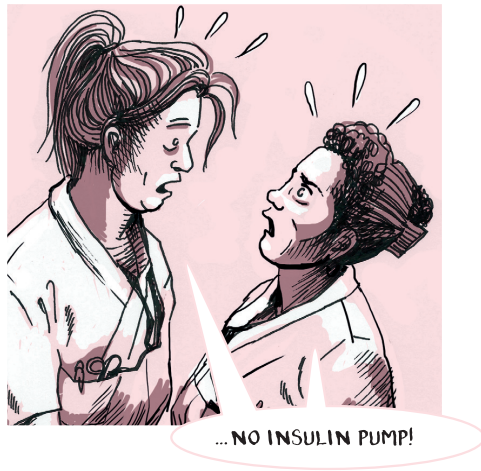
patient's home computer and mobile phone. This means that a patient's records can be accessed not only in the hospital but also in their home. Thus, the convergence of healthcare technology changes how accessible medical technology is accessed by the patients. At the same time, this also changes how medical language and practices leak into spheres of everyday life and affect people in new ways. Here is one example.

Today patients can search for information about their symptoms on the internet and find potential treatments before meeting with a doctor. Thus, at a care meeting, it is no longer a certainty that the professional caregiver is the expert. The patient may have found a treatment that the doctor was unaware of, and the patient may be less willing to accept the doctor's recommendations. On the other side, medical professionals can obtain information about their patients through social media in a way that was previously not possible. This affects the care meeting in different ways; for example, a nurse may read a patient's comments on Facebook without the patient explicitly providing this information to them. This now places the nurse in the dilemma of how to handle this private information in her professional role. Based on these overall thoughts, we have developed our case description.

During a break, a nurse at the hospital logs onto her Facebook account to see if any of her friends have posted anything interesting. In the Facebook newsfeed that emerges, one post catches her attention. It is from a mother who regularly visits the ward with her son, who has a long-term illness. The mother has commented about her upcoming healthcare visits. She states that, as a mother, she is worried about future visits, given that at the last meeting, she felt that the nurses were critical of how she handles her son's treatment. The mother expresses worry about receiving similar criticism at the visit scheduled for next week. The *imagined audience* of this post is probably the mother's social circle and not the healthcare staff.³ Nev-

³ Here, we use the imagined audience in a similar way as Media Studies Researchers Alice E. Marwick and danah boyd develop it: "Every participant in a communicative act has an imagined audience. Audiences are not discrete; when we talk, we think we are speaking only to the people in front of us or on the other end of the telephone, but this is in many ways a fantasy. [...] Technology complicates our metaphors of space and place, including the belief that audiences are separate from each other. We may understand that the Twitter or Facebook audience is potentially limitless, but we often act as if it were bounded" (Marwick & boyd 2010: 115).

IN THE STAFF ROOM AT THE HEALTH CARE CENTER



ertheless, when the nurse sees this message during her break, this private comment expressed by the mother on Facebook becomes a criticism that the healthcare staff on the ward needs to acknowledge and deal with in the forthcoming healthcare meetings with this mother. The nurse is faced with a new choice: Is she to ignore this information? Or should she discuss this with her colleagues and later discuss it with the mother?

In this confusion between the private virtual environment context and the work environment context (at the hospital, in this case), a cultural phenomenon is created that changes the nurses' work environment. In this example, digitalization is but one of the many causes of the blurring of the traditional boundaries between professional and private spheres and roles. Another cause is the informalization of institutions, where professionals and patients meet as equals. Therefore, to understand the different contexts, we need to analyse both empirical cases as well as theoretically understand these cases from the perspective of informalization. Can it be that social media – like Facebook, Twitter and other digital social media platforms – reinforces these cultural processes of what we call 'context collapse'?

Context collapse

The room where the care meeting takes place can be considered a stage where health carers perform their profession. There are no patients backstage (i.e. outside the examining room, in personnel only areas), and it is here that the nurses and doctors feel more freedom to discuss the patient with their colleagues without unnecessarily worrying the patient about, for example, the uncertainty in a potential diagnosis. The sociologist, Erving Goffman, created this metaphor of the theatre stage to explain social interaction in terms of how individuals 'perform' in different settings (Goffman 1959). 'On stage' people want to present themselves in a way that creates a certain impression in the minds of others. Nurses want for example to be perceived as professional and trustworthy by the patients. Their professional identity plays an important role in enabling them to perform their work, for example, when administering treatment and providing medical advice.

Today, digital technologies play an active role in shifting the traditional social and cultural boundaries of our workplaces. When digitalization provides 'windows' into different contexts, this challenges the boundaries between on- and off-stage performance. For example, when medical knowledge is available via the internet, this dissolves the boundaries between

patients and healthcare professionals and blurs their contexts. Anthropologist Michael Wesch uses the term *context collapse* (Wesch 2008) to describe this phenomenon.⁴ In face-to-face communication – when we are in the same context as the person we are talking to – we are more likely to adapt our behaviour to the current social context and adjust how we act and what we say. The traditional care meeting can be seen as a social context ‘on stage’ where the patients and the professionals know how to act and what to say (Hansson & Nilsson 2017). With social media, this specific social context disappears, and the individual communicates to intimate friends, acquaintances, family members and others simultaneously. Moreover, the individual cannot always predict what context his or her communication is being received in. We can thus claim that different contexts *fall over each other* and collapse because they are not tied to space and time (Wesch 2008).

In the example with the mother on Facebook, this context collapse happens because the Facebook message that was intended for her close friends became accessible to the nurse. On the computer screen at the hospital, nuancing the information with linguistic expression or with face-to-face expression is not possible. Instead, it becomes information that the nurse and her colleagues must handle ‘off stage’, and in some way in the upcoming healthcare meeting when they next meet the mother offline.

Consequently, this form of context affects the nurse’s working life. Should she change her way of acting in the healthcare meeting? Should she confront the mother and discuss the comment on Facebook? Perhaps she should simply ignore the comment. These questions are not easy to answer, as they often require a face-to-face relationship to arrive at an answer that is acceptable to both.

Other examples can be found of where contexts collapse. One is when patients send sensitive information or pictures to their healthcare professionals via their mobile phone or email, even though this is not permitted. Patients, as we have come to understand from our interviews, even send in pictures of their bodies when they want a doctor to look more closely at them. The patient can also find information about and ratings of their doctors and nurses via sites on the internet.⁵ This can help the patient find a doctor or nurse who meet their needs. However, the information can also

⁴ See also Marwick & Boyd 2010; David & Jurgenson 2014; Andersson 2017.

⁵ See for example: <http://vårdcentralen.se/>



be misleading, especially when the information is not vetted or validated in any way. A reverse kind of context collapse may also occur. For example, if a nurse uses social media to send information regarding grumpy patients, and the patient or the relatives can access this information.

Conclusion

The digitalization of healthcare increases the patient's influence on their care through the increased availability of medical information via the internet. But this also poses new issues when the role and traditional mandate of the healthcare professionals are challenged by 'amateur physicians', and when patients are not comfortable with or able to fully utilize the new technology.

The convergence between different media has meant that texts and images move more freely in the virtual world and thus also appear in social contexts where they were not intended to be read or viewed. It may be a critical text or an intimate photograph sent specifically for the medical assessment of the doctor, but in the wrong context, this content can create problems. For the professional, this becomes a challenge in the work environment where you no longer have to relate to the face-to-face care meeting, but the patient and their relatives can appear in various social contexts. Thus, the virtual environment should not be simply regarded as online communication because communication on social media also affects the reality that is offline, for example, in healthcare meetings or discussions with colleagues.

Therefore, technology use is never neutral but rather changes and affects the work life of healthcare professionals in many ways. The impact that technology has on the traditional relationships between healthcare staff and their patients is an important aspect to consider when introducing new digital systems, as it can have a profound effect on the work environment. We argue for further studies from a micro perspective to investigate how, and in which situations, context collapse occurs today and how we can work towards the positive use of digital technology while avoiding the potentially negative side effects.

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Chapter 7:

Breaking the Rules to Get the Job Done: When Digitalization Results in a Lack of Professional Jurisdiction

Carola Aili and Lars-Erik Nilsson

Teachers' work in Swedish schools today is totally dependent on digital technology. Technology transforms the nature of work, and thus, with new work tasks, routines, rules and laws emerge – all with the potential power to regulate its use. In discourse about the teaching profession, it has been argued that the work of teachers has never been so easy to control as it has been since the dawn of the digital revolution (Selwyn 2013; Thompson & Cook 2017). However, one result of our comprehensive study of teachers' professional work contradicts this by asserting that, despite how well teachers perform their job, they are still placed in positions where they must break rules regardless of whether these rules are bound in law and policy or reflect of their professional conviction.¹ In this chapter, we discuss this type of rule-breaking from the perspective of so-called professional jurisdiction,

¹ Material from the project “Quality Driving Teacher Work” was funded by Employment Insurance AB, AFA, which is owned by the social partners. The material reflects what teachers report when they name the types of work they find essential to carry out to ensure that their work with the pupils is of high quality, see Aili, C. (2014); Österlind, M-L. (2014); Aili, C. & Österlind, M-L. (2013a, 2013b); Aili, C. (2013).

which is the links between a profession and that professions' rights, duties and obligations to carry out work. These links are gained and maintained in three areas: in the legal area, in local workplaces, and in the public arena through the media or via direct contact with citizens (Abbott 1988). These links are built on the trust the professionals extract through their knowledge base, their professional ethos, and their ability to manage or find solutions to problems within their field. It also gives the professionals influence and autonomy over their work tools and ways of organizing work.

A common understanding of professionals like those in the teaching profession is that they possess knowledge built on formal, abstract principles, grounded in research and ethics. Professionals put this knowledge into practice as they work, and due to this specialized and unique knowledge, they enjoy autonomy (i.e. the freedom and ability to act within an area of jurisdiction) (Abbott 1988). In situations where their abstract knowledge is vague, or the principles for cause and effect are unclear, the professionals use discretionary judgement – a form of judgement that requires both logical conclusions and conclusions based on tacit, experience-based knowledge (Freidson 2003). In contrast, contemporary modes of governance require individual practitioners to organize their work in line with the aims, standards and indicators put into place by the organization (Aili & Nilsson 2015). Under this form of governance, discretionary decision making can be viewed as rule breaking and is sanctioned in different ways. To do good work, teachers must face the terror of rule breaking. Digital technology mediates this control and surveillance of professionals, but it also has become a tool that is central to the professionals' work. The following illustrations are made up from our material. They highlight the complexity of professional jurisdiction in digitized learning environments.

How internet shutdowns turn teachers into rule breakers

Anna is a secondary school teacher. On this particular day, she is working against a deadline prompted by her responsibility to prepare her pupils for the upcoming national tests. For this task, she has designed an exercise where her class are to work in groups using the internet. The students are learning how to gather information on the internet and produce a text where they compare sources – when suddenly – commotion breaks out in the classroom because the network is down.

Anna has experienced network shutdowns and outages before and knows they can last for some time. However, she also knows that the internet is a crucial tool for preparing the pupils for the national test and that how to use and evaluate sources is a skill which is tested in secondary education. Anna asks the pupils if they have an internet connection at home. She then instructs them to form groups and leave to go to the home of whoever in the group who has internet access so they can continue their work. She also urges them to keep in contact via Skype, where they can ask questions and upload texts.

The pupils are astonished. School is compulsory, and they have never been sent home during a lesson before, but they gather their things in their rucksacks and begin to leave for their temporary place of study. As they go, some pupils exchange what Anna construes to be sly glances, and this makes her feel uneasy. Nevertheless, she is preoccupied with the logistics of the shift in educational space and thus suppresses the feeling and goes on with her work. Later the same day, Anna is given cause for concern.

Teachers like Anna are breaking several rules that regulate work in Swedish schools. In the example, it can be argued that she does not fulfil her supervisory responsibility (AFS 2013:3; SFS 1949:381 6 ch. § 2; SFS 1977:1160 ch. 9; SFS 2010:800 5 ch. §§ 3-4) when she dismisses the pupils to go home during a scheduled class and does not ensure they are properly supervised. The Educational Act (SFS 2010:800) refers to the Work Environment Act (SFS 1977:1160), where the care of minors is discussed, and it stipulates that risk prevention is mandatory. Anna could be accused of negligence because she did not perform a risk assessment and then submit it to the headmaster responsible for the work environment. Risk prevention is also mandatory in the digital learning environment. It can be argued that Anna further violates the rules governing the use of digital technology in school when she established a community on Skype for communication and stored material on servers outside the EU without having properly assessed the risks. Although it can be considered farfetched to assume that Anna violated the rules in the Personal Data Act (SFS 1998:204) for storing information about individuals, she has the explicit duty to assess such risks. It is always the case that locally produced policies and guidelines in this area regulate teachers' use of digital tools, and Anna would also have been required to take these into account.

Anna has been working as a secondary school teacher for four years.



She is working against a deadline preparing her students for the upcoming national test.

Today, her students work in groups. They practice their ability to gather information on the Internet and to compile it into a text with a comparative discussion.

Group 3 (Julia, Oscar and Amir) is hard at work when something (not so) unexpected happens.

Noooo! The WiFi is down again!

Same here...

Fat chance of us finishing this by tomorrow then...



Anna's trained brain switches to overdrive

Okay... Let's see...

The school WiFi is down. Surely one person in each group has WiFi at home?

You will have to continue working at home!

what?!

Stay in touch with me on Skype!

OK

Let's head for the mall!

Nice!

Later, the same day

Maybe not the brightest of ideas, Anna...

At least I have been in touch with most of them through Skype.

But not a word from group 3...

Dear School Inspectorate! Forgive me for I have sinned...

Anna, GO TO SLEEP!

Caring for every pupil is a form of pastoral care presumably at the heart of teachers' professional ethos. However, such care also involves responsibility for the pupils' results. In this case, Anna ignores the rules because she wants to make sure her pupils can prepare for the national tests. However, some pupils did not go home and work on the task, but instead, hung out in the city centre. It is not that teachers like Anna are unaware of the risks, but they think it is better to ensure that the majority of pupils can prepare for the test. However, in this case, Anna was not able to support and monitor the pupils' work as she had hoped.

Employers have to provide a functioning work environment that caters to the needs of teachers and pupils. In this scenario Anna's and the pupils' home internet network seldom has an outage or is down. Also, Anna's iPad is faster than the school's, which means she can easily back everything up to the service she prefers, and this is the case for many pupils as well. The upshot is that Anna cannot rely on the technology the school provides. A malfunctioning technical infrastructure creates a stressful situation where an individual is in charge, while at the same time, not in control. Moreover, technology malfunction is a well-researched risk factor for stress in addition to the risk that being seated in front of a computer has been linked to musculoskeletal disease (WHO 2006, Arbetsmiljöverket 2015, Söderström 2017).

Jurisdiction, performativity and the tyranny of choice

Anna and her colleagues do not have jurisdiction over the internet at their workplace, even though it is a central tool in their everyday work and fundamental for high quality teaching. Policy texts show that the digitalization of education is heralded by dreams of helping teachers find good ways to teach (fx. Skolverket 2017; SOU 2016:89). Other ways of looking at digitalization also come to mind. One is to focus on performativity and how it has become an essential buzzword in discourses on education. Referring to Sociologist Nikolas Rose (Rose 1992), Professor of Sociology of Education Steven J. Ball writes that "the new performative worker is a promiscuous self, an enterprising self, with a passion for excellence" (Ball 2003:215). The teachers in our study inform us: They are meant to use digital technology to increase their performance and become more efficient, but they regularly encounter obstacles. These barriers sometimes force them to fight for the soul of their profession as well as set aside personal beliefs and com-

mitments. Their working life – and private life – is not one of rational calculation; instead, they struggle with inner conflict and inauthenticity and face work and worries about the direction school is taking. To cope, they negotiate rules and constantly worry that they may break the rules in ways that they cannot justify. This form of performativity produces opacity rather than transparency, as individuals and organizations take ever greater care in the construction and maintenance of fabrications (Star 2002; Ball 2003). As suggested by Star (2002:112), in this kind of discourse, transparent means opaque.

When researchers discuss the processes and effects of performativity in the public sector, their theories are often accompanied with metaphors; for example, the state becomes “the rule society” (Fernler & Helgesson 2006) or “the evaluative state” (Naeve 1998). Digitalization has mediated these changes in the conditions of being a professional. Can it be that the changes are threatening the discretion of professionals’ work? In professional theory, it is a shared understanding that professionals sometimes need to deviate from rules and standards and make discretionary judgement calls (Freidson 2003). Teachers like Anna need to act, but they can never fully know the consequences of their actions. What would have happened if they had followed the rules or made a different discretionary judgement call? Thus, discretionary decision making involves uncertainty and introduces stress which may influence teachers’ willingness to break the rules, even when rule breaking may seem the most sensible solution when the lack of jurisdiction consistently places them in bad working conditions.

Construction of persona is an established method for understanding digital technology in a work environment perspective (Cajander et al. 2015). We draw upon Bronwyn, Davis and Rom Harré’s (1991)² research results that show that there are ‘subject positions’ available in a discourse that cluster the right and duty to act. From this perspective, teachers are bound to take up different positions, and in our analysis, we have grouped

² Harré is one of world’s most prolific social scientists. He has written on a wide variety of subjects, including the philosophy of mathematics, the philosophy of science, ontology, psychology, social psychology, sociology and philosophy, critical realism, history and the epistemology of psychiatry, and social psychology. Bronwyn Davies was a professor of Education and is now an independent scholar. She has written on literacy, pedagogy, poststructuralist theory, and neoliberalism’s impact on subjectivities.

them as three subject positions. The first persona is called the *surpasser* – a person that transcends the jurisdiction of the profession because that is what it takes to do good work. Our empirical project on “Quality Driving Teacher Work” amassed an abundance of material which shows how teachers take up other subject positions. Other possible subject positions we discerned in our empirical material include what we refer to as the *upholder* and the *abstainer*. The former is a person who defends previously gained professional jurisdiction by fending off attempts from other groups to gain control, and the latter refers to a person who moves away from carrying out core work tasks with the preferred tools because it is easier to do it the old way than to struggle with the new tools. However, in the process, they surrender jurisdiction to other professions. Our empirical data further illustrates how digitalization introduces what Ball (2003) refers to as “terrors of performativity”, as teachers face “the tyranny of choice”. Often, teachers are forced to take technical malfunction into account as they strive to create sustainable conditions for learning.

Teachers lose control to others, including the power to decide on what is called “their tools of learning”. It even goes so far as to affect their assessment tools and common but central tools like their calendar. Teachers and often even headmasters are placed in a subordinate professional role in their relation to, for example, the IT department. Our study demonstrates that teachers’ lack of control has an alienating effect on them. It also demonstrates that the absence of any clear understanding (from teachers and other actors) that technology ought to be a teaching tool weakens their jurisdiction. When teachers need to break rules to harness the power of digital technology, that power is lost.

Conclusion – The tyranny of rule breaking

One recent news headline from the World Economic Forum claims that “Sweden beats other countries at just about everything” (Grey 2017), which implies that Sweden is highly advanced when it comes to technology. There are different ways of being advanced, and none of the measures used by the forum highlight the challenges faced by Sweden’s professionals as they engage in the task of fulfilling their professional missions, while at the same time, face the terrors of rule breaking. We argue that nothing indicates that Sweden stands out as exceptional in this respect.

When headmasters, chief administrative officers, politicians and others view technology as a product that one can simply buy off the shelf and start to use immediately – as artefacts similar to a chair or a whiteboard – they force teachers into the position of being between a rock and a hard place. It is clear that digital technology is not at all the same thing as other products such as office supplies. Digitalization also touches on the professional core and ethos of the teaching profession. This begs the question of whether teachers have control over their everyday working tools or if digitalization has become something done *to* them rather than *for* them. Our material shows that when it comes to digitalization, teachers are not in control. They know this, and they can describe the powers at work. Thus, digitalization has indeed become something done *to* them rather than *for* them. The changes have a fundamental impact on professional identity and practice. In some areas, the loss of control is deeply felt; for example, teachers like Anna feel frustrated and the need to seize control, otherwise she cannot do her job.

Our main conclusion is that this form of governance introduces terrors of choice and thus paves the way for a performativity paradox – a form of de-professionalization of teachers.

The common discourse on technology presents digitalization as a process that will set professionals free – that technology supports the ability of professionals to perform discretionary work and that the tools are more exact and efficient. They also give the professional the power to decide where and when to work. Nevertheless, our second result is that this discourse of freedom needs to be unpacked, as the real-world experiences of teachers are vastly different from this discourse. Instead, technology appears to be a prime factor driving regulation, both because technology affords control over how work is carried out and because technology is now in the hands of others. Paradoxically, with this new so-called flexible technology, teachers feel that they have both lost some flexibility and gained more work tasks. The use of digital technology and its functions at school is outside the professional jurisdiction of teachers.

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From Careers to Atmospheres

Melissa Gregg

Editorial foreword

During the final stage of our project at the Pufendorf Institute, we had the honour of hosting Guest Researcher Melissa Gregg. With a background in Gender and Cultural Studies and with extensive experience from the worlds of both academia and industry, Gregg gave input and enriched our transdisciplinary discussions on the contemporary transitions of work and working life. As a reflection of Gregg's multifaceted background, we valued her ability to combine critical competence with a constructive edge – with a focus on making a difference. During her stay at the Pufendorf Institute, at a Digiwork event, Gregg gave a public presentation on coworking spaces – a recent social and culturally significant phenomenon in post-industrial societies – in conjunction with the 350-year anniversary of Lund University. The present text derives from that presentation;¹ however, despite that it derives from a different context than the previous chapters, it nevertheless further underscores what has been a pervasive argument in this book, namely, that digitalization intersects and interplays with economic, social and cultural processes in society. Therefore, it should be studied not with a single focus nor from a single perspective but rather with a contextual approach involving several standpoints and disciplines – an approach that lies at the core of our theme.

Eds.

¹ The text was previously published by The Research Institute for Culture and Media Economies (CAMEo), University of Leicester, UK. <https://www2.le.ac.uk/institutes/cameo/cameo-cuts-1/cameo-cuts>

Over the course of a century, time management in the workplace enacted a progressively personalized relationship to efficiency. Whether in popular or institutional form, career-enhancing training programmes encouraged an intimate relationship to one's work, defining professionalism in terms that benefitted the organization and its machines. Sanctioned methods for time and self-management amplified workplace initiatives aimed at erasing the practical and ideological means of experiencing labour as collective. We see this in the scientific management of Taylorism, the human relations tradition of Elton Mayo, the self-auditing company executive and the app-monitoring, mobile professional of today. Throughout history, workers have been encouraged to take part in record-keeping pursuits that have disaggregated and individualized labour in the name of progress. By casting workers as high-potential actors imbued with drive, the productivity imperative legitimated professional ambition as self-improvement and a progressive momentum, and moreover, removed the incentive for individuals to acknowledge their output in relation to a group effort. The athleticism of time management – proving one's job *fitness* – required a turn away from social and collegial dependencies.

For workers, the consequences of this history have been profound. Not only did the efficiency demands of the organization come to be singularly prioritized in the interests of personal survival, but also beyond the workplace, a battery of mass-market texts and technological aids supplemented the professional curricula consolidating in universities under the rubric of management studies. To submit oneself to the discipline of time management – and to do so willingly as an elective effort – has become an expected cultural norm. Today, the successful entrepreneurial individual is trusted to perform a “permanent reform or revolution” of the self to avoid redundancy in a competitive job market.¹ Productivity's recursive rationale suits a generalized condition of austerity in which “anyone not prepared to ‘fling himself into the fray... has already lost.’”²

¹ Ulrich Bröckling, “Gendering the Enterprising Self: Subjectification Programs and Gender Differences in Guides to Success.” *Distinktion*, no. 11 (2005): 18. Sianne Ngai observes a similar trend of subjective reconfiguration drawing on Paulo Virno in the introduction to *Ugly Feelings*. Cambridge: Harvard University Press, 2007. p. 4.

² Bröckling, *ibid.*

Despite their resilient attraction as secular science, many of the earliest theories and techniques of time and performance management map poorly onto the present. This is due to the gradual disintegration of the organization and the work it contained. The notion that work is carried out through a series of individual choices regarding time, which are based on unique interpretations of classification and order in fixed and bounded locations, ignores the structural conditions that govern today's corporate firms; this is in addition to the cumulative impact of so many apparently personal decisions on a social and global economic field. As professional work has become distributed, digitized and personalized, so too have the technologies designed to monitor and evaluate efficiency. The latest productivity tools enacted through software platforms and wearable devices are at the end of a long line of delegated logistical work that has been the burden of *some* bodies in *some* places to bear more than others. Productivity services typically rely on a hidden infrastructure of low-paid primary production, support and service work as well as domestic labour and care so that they may function. If there was any doubt that time mastery depends on the inferiority others, the names of some of the leading providers of delegated work are enough confirmation: "Task Rabbit" is as dehumanizing as Amazon's "Mechanical Turk" in the growing ecosystem of virtual online assistance.³

Advocates see these software platforms as evidence of the resources now available to workers to earn a living outside the inconvenience of rigidly imposed schedules. However, set against the longer history of labour struggle, the rise of on-demand labour apps is a mixed blessing, revealing what is at stake when servitude is required to advance the benefits of productivity. Digital platforms orchestrate an unregulated job market which separates wages from employers and thus the expectation of baseline income and benefits. The configuration of work as it is carried out in these transactions means that employment location, management, scheduling and pay no longer align in one place.⁴ In other words, "platform capitalism" ruptures the

³ Lilly Irani, "Difference and Dependence Among Digital Workers: The Case of Amazon Mechanical Turk." *South Atlantic Quarterly*, 114 (1), 2015: 225–234. See also *In the Crowd*, which documents Mary Gray and Siddharth Sury's year-long study of online crowdworkers in the US and India. <http://www.inthecrowd.org/> (Accessed May 17, 2017).

⁴ Neha Thirani Bagri, "Startups in the gig economy will go to great lengths to avoid calling their employees employees," *Quartz*. April 6, 2017. <https://>

relationship between employment and time.⁵ What is traded for the convenience of a contract, contingent or “gig”-based lifestyle is any hope that workers *can* control time.

This is why digital labour platforms stress the flexibility of their scheduling apparatuses: The productivity mandate that fuels the practice of time management posits the attractive idea that it is possible for us to focus on consequential matters for predetermined periods. That we hold the power to control life’s unpredictability through the deployment of protective infrastructures is the fantasy necessary for productivity’s appeal. This persistent belief in time management as an ostensibly achievable and desirable goal pervades the register for labour demands even at a time when jobs with material outputs, defined hours and suitable payments are increasingly rare. The growing disconnect between labour performance, measure and value in a service and data-driven economy must be understood before turning to *alternatives* that may prove more accommodating and empowering for workers in the present and future. In addition, acknowledging feminist, race- and class-sensitive histories means that the equation between temporal sovereignty and freedom in work must be constantly questioned. As Sara Ahmed notes, “When being freed from labor requires others to labor, others are paying the price of your freedom.”⁶ Recalling Sarah Sharma’s words, a politics of temporal awareness “means recognizing how one’s management of time has the potential to further diminish the time of others.”⁷ The plea-

qz.com/952034/startups-in-the-gig-economy-like-uber-and-deliveroo-will-go-to-great-lengths-to-avoid-calling-their-employees-employees/ Accessed May 17, 2017. For a full discussion, see Arun Sandararajan, *The Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism*. Cambridge: MIT Press, 2016.

⁵ Nick Srnicek, *Platform Capitalism*. Cambridge: Polity, 2016.

⁶ Ahmed’s larger point is imperative: “Black women and women of color; working-class women; migrant women, women who have worked in the factories, in the fields, at home, women who care for their own children as well as other children, such women have become the arms for other women whose time and energy has been freed... If the freeing up of time and energy depends on other people’s labor, we are simply passing our exhaustion on to others.” *Living a Feminist Life*, Durham: Duke University Press, 2017. p. 85.

⁷ Sarah Sharma, In the Meantime: *Temporality and Cultural Politics*. Durham: Duke University Press, 2014. p. 149.

sure of being productive – to work on the most visible, valued and rewarded labour in a company or a culture – should not come at others’ expense. Productivity is not a virtue if it requires temporal subordination in the attainment of elite gratification.

Escaping the Enterprise

To escape the notion of productivity inherited from the enterprise requires thinking beyond work-centric categories of assembly and achievement. In what follows, I offer two case studies that express the positive qualities to be found in productivity when this involves building *atmospheres* for social interaction outside the socio-temporal dictates of the organization.⁸ While neither example is without flaws, I see them as useful stimuli for advancing further efforts in imagining and constructing post-work livelihoods and futures.⁹ Consider them as an invitation to continue this conversation collectively, as fellow theorists, workers and activists.

Atmospheres I – Coworking spaces

Coworking spaces are a physical assemblage of social networks and pooled resources where independent, remote and contract workers gather together in a shared location. By paying membership to a community space on a month-to-month basis, coworkers invest in an infrastructure for the development of new identities, affiliations and rituals that compete with the corporate career reward structure – to the point where enterprise customers

⁸ Here, I follow the example of Timon Beyes and other critical management theorists who introduce the philosophy of aesthetics to provide the contours of a reimagined and more socially just organization. See Beyes, “Art, Aesthetics and Organization” and other chapters in *The Routledge Companion to Humanities and Social Sciences in Management Education*. Chris Steyaert, Timon Beyes and Martin Parker (eds). London: Routledge, 2017. My reading of Daybreaker is also informed by ongoing conversations with Mark Banks, who describes the politics of class, labour and transcendence in “Being in the Zone of Cultural Work,” *Culture Unbound: Journal of Current Cultural Research*, Special issue, Capitalism: Current Crisis and Cultural Critique. Johan Fornas (ed.) Vol 6, 2014: 241–262.

⁹ Kathi Weeks, *The Problem with Work: Feminism, Marxism, Antiwork Politics, and Postwork Imaginaries*. Durham: Duke University Press, 2011.

are turning to successfully shared office operators like WeWork to solve their talent retention problems.¹⁰ Like other consumer-driven platform innovations – AirBnB, Kickstarter, Etsy and others – coworking operators share a desire for more meaningful work which extends beyond the ideals of productivity that defined employment in the organization era. Their venues provide tools to generate work and income such that livelihoods need not depend on traditional nine-to-five employment.

In 2016, struck by the growing number of shared office locations appearing in my local neighbourhood around Portland, I began talking with Thomas Lodato about his research on coworking spaces. For my Intel job, I was interested in the burgeoning ecosystem of start-ups and small businesses arising from these venues; both Thomas and I wanted to find out what the ‘co’ in coworking really captured. Did it mean *community*, as so much of the advertising for coworking spaces maintained? Or did it mean something specific to the kinds of collaboration enabled by the physical layout of the buildings inside? Over the course of a year, Thomas and I shared notes from fieldwork conducted across the US, Europe and Asia, drawing together overlapping observations.¹¹ We observed that, in coworking, community refers to a combination of “camaraderie, collegiality and knowledge transfer

¹⁰ The corporate coworking trend is often regarded as an affront to the collectivist origins of community coworking as well as an assault on the traditional serviced office real estate market. One way of thinking about the role of coworking in the current intersection of high tech and real estate investment is that it provides an outlet for critique of the dominant paradigm for arranging work in the enterprise. In her influential study of gay family life, *Families We Choose: Lesbians, Gays, Kinship*, Kath Weston argues that alternatives to a norm often serve to reinforce the dominance of the established model. Even a strong and vocal appreciation of deviations from tradition can underscore the significance of the socially sanctioned version of the practice. In exercising a new opportunity to work alongside *colleagues* who they choose, coworkers display some of the elective affinities that are central to sustaining queer life, even while they rely on the normative idea of the company office to differentiate their choice. Weston, *Families We Choose*, New York: Columbia University Press, 1991.

¹¹ Our research on labour conditions emerging out of austerity also explores the role of civic hacking in the provision of professional skills training and the normalization of sacrificial labour in the tech industry. See Carl DiSalvo, Melissa Gregg and Thomas Lodato, “Building Belonging.” *Interactions*, Vol. 21, Number 4 (2014): 58–61.

fostered through spatial proximity.”¹² In promotional copy for coworking spaces, community is often shorthand for what Seb Olma calls the “serendipity” of coworking, which can appear artificially manufactured in some contexts.¹³ Current projections from Emergent Research point to 26,000 coworking spaces worldwide and something like 3.8 million individual members by 2020.¹⁴ Whether or not these figures hold, the phenomenal growth of coworking can be understood in terms of the emphasis knowledge workers place on the right *atmosphere* for personal productivity. Coworking’s key benefit has been to offer comfort amenities – free coffee, beer, and snacks; inspirational quotes painted on walls and displayed through neon signage; on-site therapy dogs, massage, and yoga – in addition to aesthetically pleasing lounge areas that allow individuals to feel close to something – something that *might be happening*. The renewed popularity of coworking as part of the post-2008 economic recovery also suggests that a shared work location is one important factor in offsetting the instability of a precarious career path. While coworking providers do not directly generate employment security or job leads, what they do provide is the social and material infrastructure upon which such valuable connections and opportunities can be realized. If freelancers have always lived by the whims of the market, bearing the burden of securing their own contracts, tools and resources, then it is the lack of social interaction in independent work that can negatively affect workers’ wellbeing.¹⁵

Coworking is the physical manifestation of a larger international community making use of Instagram accounts, Twitter hashtags and Facebook pages to promote workstyles outside company walls. Search for #coworking

¹² This and the following quotation appear in our co-authored paper, “Managing Community: Coworking, hospitality and the future of work.” *Affect in Relation*. Birgitt Röttger-Rössler and Jan Slaby, eds. Forthcoming.

¹³ Seb Olma, *In Defence of Serendipity*. Repeater Press, 2016. I thank Seb for further practical assistance in this fieldwork during my visit to the Netherlands.

¹⁴ Small Business Labs admit the difficulties in tracking a booming market with the non-standard data available internationally in their otherwise compelling forecast: <http://www.smallbizlabs.com/2016/08/coworking-forecast-44-million-members-in-2020.html> Accessed May 22, 2017.

¹⁵ Stephen R. Barley and Gideon Kunda, *Gurus, Hired Guns, and Warm Bodies: Itinerant Experts in a Knowledge Economy*. Princeton: Princeton University Press, 2004.

or #digitalnomad on social media and witness the array of users promoting travels and adventures beyond the conventional career itinerary. These communities operate on the premise that the world can be navigated easily and efficiently through shared know-how, namely, brokerage services that will facilitate safe passage through cities and countries that gain an economic benefit from wealthy workers' presence. Coworking spaces are a vital channel for this global class of mobile workers, securing the social and practical resources to enjoy a world *through* work. And yet, it is hard not to recognize that the privilege of digital nomads often depends on a superficial engagement with local communities, just as the commodified form of community offered by coworking behemoths derives speculative value from the collision of real estate and business interests.

Atmospheres II – Daybreaker

Daybreaker is an occasional morning dance party that began in 2013 and has since spread to many US cities as well as to Toronto, Paris and London. Appropriately, it was conceived in a Brooklyn falafel shop by founders Radha Agrawal and Matthew Brimer after a long night out. The thought was to “take the energy and inclusiveness of the nightclub scene and infuse it into the weekday morning routine” – inverting the conventional dance experience requiring darkness and drugs.¹⁶ The pre-dawn parties are designed to disrupt the monotony of the working week, allowing access to great music and inspiring locations for patrons to bliss out and relieve stress: “The idea is this: Arrive before dawn, dance like crazy to hot beats from popular DJs, and then go to work feeling amazing.”¹⁷

¹⁶ Coleen Shalby, “Weekday morning dance parties are now a thing.” July 13, 2015. <http://www.pbs.org/newshour/art/start-your-morning-by-going-to-a-7am-sober-rave/>. There is irony in this objective, given that Rhada and her twin sister, Miki, admit in an interview that they are essentially unemployable. The pair have avoided any typical career path through a run of successful start-up businesses, of which Daybreaker is but one; of their portfolio of ventures, the twins also manage a line of sustainable underwear designed to rid the world of menstrual shame. They cite their athletic background as crucial to their business acumen in (the now defunct) *Racked*: <http://ny.racked.com/2016/5/23/11717668/miki-radha-agrawal-thinx-daybreaker-williamsburg-nyc> Accessed June 4, 2017.

¹⁷ “4 Booze-Free, Mindful Events to Check Out This Summer.” <http://www>.

Daybreaker's mix of live DJs, entertainers and boutique fitness instructors all come together to lead a party of typically 400–500 paying guests and begin the day on a natural high. Before the dancing commences, pre-tick-eted yoga sessions allow gathering attendees to wake gradually, while local vendors offer gourmet juice, coffee and breakfast items as part of the price of entry. The further benefit of the dance dimension, as the sober clubbing trend also documents, is the chemical hit of the endorphin rush. The pleasure of this physical exertion accentuates what time management gurus have long identified as the 'Prime Time' of early mornings. "Morning is a time when you have the most amount of energy potential inside of you," Brimer notes in explaining Daybreaker's origins.¹⁸ Event promotion celebrates both the mental clarity and the adrenaline hit that dancing at dawn delivers. Daybreaker parties are a notably collective example of popular mindfulness practices seeking attunement with the body's rhythms and patterns. Amidst the frenzy of the dance, Daybreaker creates an opportunity to witness the body's natural sensations and experiences without the noise of stimulants or other signal-scrambling distractions. Daybreaker makes a spectacle of this vital knowledge and takes it to the extreme at a time of day and week when this behaviour is socially unexpected. Rather than turning inward, reflecting on the story of the individual's body – the solipsistic potential that haunts some commercial mindfulness practices – the gatherings purposefully explore the body's pleasures in combination with a large group. Daybreaker events are designed to unleash affective contagion: Assembling a multitude of bodies to witness what they will do. In this way, Daybreaker extends the premise of other quasi-spiritual fitness companies that have fanned a niche market by offering sensuous aesthetic environments for members. These lifestyle brands (like the SoulCycle chain made famous by Michelle Obama) encourage a kind of physical exertion that fuses mindful techniques with athleticism.¹⁹ They suit the requirements of an urban milieu where contam-

care2.com/greenliving/4-booze-free-mindful-events-to-check-out-this-summer.html Accessed June 4, 2017.

¹⁸ In Shalby, *ibid.*

¹⁹ SoulCycle's generous early valuation attracted multiple write-ups in business media outlets, including this *New York Times* profile: <http://www.nytimes.com/2015/08/09/upshot/soulcycle-you-say-cult-i-say-loyal-customer-base.html>. Michelle Obama's SoulCycle passion is outlined in a subsequent *NYT* piece, "A Beat and a Bike: Michelle Obama's Candlelit Habit", <https://www>.

inated environments provoke the desire for what Peter Sloterdijk would call “immunological bubbles.”²⁰ Unlike the healing ambitions of conventional mindfulness, however, Daybreaker is explicitly hedonistic in its aim to unsettle the norms of the working week. Gatherings provide an oasis from the grind of city life in assembling various nutrients that will replenish the mind and the soul in the midst of habitual routine. The locations for each event are typically several steps removed from the heart of the city’s financial district or the grittier parts of the urban environment. In a particularly popular Daybreaker form, parties are held on a boat in the Hudson (NYC) or the Bay (San Francisco) – marking a temporary separation from the city grind.

Daybreaker is not the first morning dance phenomenon, but its international appeal suggests that there is something similar in the experience of living and working in large, affluent cities, whether it is in LA, Seattle or London. The audience imagined for the events shares the language and privilege of the white, wealthy elite also drawn to mindfulness technologies.²¹ However, in contrast to the Baby Boomer bohemian, social media promotions for Daybreaker emphasize attractive, style-conscious and youthful participants with the time and the means to participate in a rich sensory wonderland. The price of entry to the event provides access to a well-heeled and well-connected clientele – a networking opportunity for the aspiring class. Daybreaker LA organizer Argine Ovsepyan told CBS that guests are generally “young professionals that are rocking life. ...You could be next to an entrepreneur that runs three companies, which is pretty epic.”²² Burning Man is cited as the most useful comparison, but “without the dust, drugs or bikes.”²³

nytimes.com/2016/01/11/us/politics/a-beat-and-a-bike-michelle-obamas-candlelit-habit.html?_r=0 Accessed May 22, 2017.

²⁰ Peter Sloterdijk, *Bubbles – Spheres Volume 1: Microspherology*. Translated by Wieland Hoban. Cambridge: MIT Press, 2011.

²¹ Evgeny Morozov, “The Mindfulness Racket,” *New Republic*, February 23, 2014, accessed September 1, 2016, <https://newrepublic.com/article/116618/technologys-mindfulness-racket>.

²² <http://losangeles.cbslocal.com/2015/12/16/at-daybreaker-a-dance-party-to-start-the-day/>

²³ *Ibid.* On the productive networking potential and creative frisson of Burning Man in the West Coast tech aristocracy, see Fred Turner, “Burning Man at Google: A Cultural Infrastructure for New Media Production.” *New Media & Society* 11 no. 1–2 (February/March 2009): 73–94.

Daybreaker hints at the new coordinates for social activity appropriate for today's professionals who see no fun in commonplace genres like Friday night drinks.²⁴ The growth in wellness and health-conscious lifestyles in proximity to the work cultures of the successful tells a story of affective re-engineering amongst a new urban gentry whose boutique tastes have grown in tandem with the widening gap between rich and poor in the United States. News coverage for Daybreaker parties lists them with tags dedicated to the topic of 'green living', an indication of Daybreaker's grander aspiration to encourage more intelligent engagement with nature by paying heed to internal and external rhythms. The Daybreaker atmosphere encourages workers to experience the pleasures of time spent differently – to break with the commuter treadmill of corporate athleticism. The drug-free status of these events makes a feature of their health orientation, all the while opening the experience of elevation to a range of potential participants from different cultural and religious traditions. Daybreaker transcends any one belief system to reawaken spiritual awareness through a simple and powerful premise – to organize joy at collectively witnessing the dawn.

Towards Productive Atmospheres?

In sharing these examples of productive atmospheres, my aim is not to hold them as ideal case studies for a post-work future. As Fortune noted when describing the Daybreaker event at Macy's Manhattan Department Store in 2016: "It'll all be over in time to go to work."²⁵ I hold no illusion that these two subcultures are untouched by varieties of class and racial privilege or substantial networks of financial capital bankrolling their efforts. It is not incidental that both arise from a Manhattan milieu that harbours a degree of wealth that is unimaginable to the majority of ordinary workers. Where I find hope is in the way that both coworking and day dancing play with the constraints of the working-week paradigm, trading on the idea that they produce a different orientation to time. Each example calls out the damage

²⁴ This suggests an evolution from the dominant form of professional affect and work-related socializing I described in "On Friday Night Drinks: Workplace Affects in the Age of the Cubicle." In *The Affect Theory Reader*, edited by Melissa Gregg and Gregory J. Seigworth, 250–268. Durham: Duke University Press, 2010.

²⁵ <http://fortune.com/2016/04/13/macys-daybreaker-dance-party/>

caused to workers' wellbeing by the nine-to-five routine instituted by the organization. And each provides simple gestures of self-care, even luxury, that the majority of today's workplaces find it increasingly difficult to provide. Whether it is the cacao bar at breakfast or the refresher pack in the WeWork bathroom, these atmospheres for productivity offer amenities for a worker who is destined to endure a long and unpredictable work day.

Overall, what I like about both micro-movements is that they operate in the interests of the worker rather than the manager. In different ways, both offer spaces of support and repair for individuals who seek to practice the principles of mindfulness and find purpose in the work that they inevitably have to do. Coworking and Daybreaker reintroduce the pleasurable social relation that the efficiency metrics of the organization strip from view. These communities use technology and local geography to introduce new rituals centred around shared time and presence. Attending Daybreaker or subscribing to a coworking space will not revolutionize corporate business practice; indeed, each clearly supplements its own obvious failings. This raises the question with which I want to end this short essay: What models of productivity do we need – what forms of affiliation, performance and ritual – for a future outside the corporation?

My conclusion is that we need to move our aspirations for productivity from the corporate to the collective interest. Productive atmospheres are truly revolutionary when they undo a century of managerial strategy and initiate a form of collective solidarity that is not dependent on labour. We urgently need political visions that celebrate practices of selflessness and care to challenge the embedded egotism of enterprise-serving job norms and pervasive industry myopia. At a time of global environmental threat, the athleticism of accomplishment has to be rejected for its utter dependence on the growth mentality that exploits our finite resources.²⁶ In Sloterdijk's words, "individual immunity is only possible as co-immunity."²⁷ Our decisions about work and our ability to classify which tasks are worthwhile expenditures of time are part of a larger societal discussion necessary to establish shared infrastructures that will sustain a range of meaningful work practices in the long term. Building atmospheres rather than careers is a necessary step in this transformation.

²⁶ Clive Hamilton, *Growth Fetish*. London: Pluto Press, 2004.

²⁷ Peter Sloterdijk, *You Must Change Your Life*. London: Polity, 2013. p. 450.

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Digital technologies have changed and will continue to change the way we think, live and work. *Working and Organizing in the Digital Age* presents case studies, analyses and graphic illustrations of how various digital technologies transform work processes and affect the working lives of professionals. The anthology draws upon knowledge bases and perspectives from multiple disciplines to facilitate a holistic, critical and innovative investigation of the transformational potential of digitalization on working and organizing.

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