

# Comfortably 'Betwixt and Between'?

## Delimiting and Blending Space, Time, Tasks and Technology at Work

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# Comfortably ‘Betwixt and Between’? Delimiting and Blending Space, Time, Tasks and Technology at Work

*Completed Research Paper*

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## **Abstract**

*This paper explores the changing nature of work at a telecommunications enterprise, where distributed work has become the new “normal” due to advances in ICTs. To make sense of this distributed nature of work, we build on the concept of liminality, which refers to an “in-betweenness”, where times and tasks of work and leisure, spaces and technologies of the office and home tend to blend. However, work and leisure do not just blend on their own, people continuously work on both mixing and separating them. Accordingly, our study explores the different types of liminality work that people do to accomplish their daily practices. Our findings demonstrate four types of liminality work – spatial, temporal, structural and technical – and two aims of each type of work – blending and delimiting. Our contribution lies in outlining three sets of propositions that can guide future research on technology-mediated changes to the nature of work.*

**Keywords:** Liminality, nature of work, practice, ICTs, materiality

## Introduction

The nature of work has been changing significantly over the past two decades (Barley and Kunda, 2001). A broad pattern reflected in the literature is the move from stable, spatially and temporally clearly demarcated work to contingent, flexible and distributed arrangements (Barley and Kunda, 2001; Evans, et al., 2004). For example, instead of the established archetype of 9-5 office work, many organizations now practice mobile or remote work, globally distributed virtual work, and freelancing (Nansen, et al., 2010; Sarker and Sahay, 2004). The role of information and communication technologies (ICTs) in automating, informing (Zuboff, 1988) as well as complementing (Brynjolfsson and McAfee, 2014; Nicolini, 2007) work cannot be underestimated in this shift. The consequences of these new forms of work are varied. For example, novel understandings, creativity and innovation are often mentioned as positive outcomes (Garsten and Haunschild, 2014; Vlaar, et al., 2008). Negative impacts include high levels of stress (Ayyagari, et al., 2011; Barley, et al., 2011), and paradoxical effects relate to both an increased and decreased sense of autonomy (Mazmanian, et al., 2013).

To make sense of the increasing flexibility of work, ambiguous working arrangements, and disappearing organizational boundaries, management and organization studies have taken up the concept of *liminality* (Garsten, 1999; Sturdy, et al., 2006; Turner, 1987). Liminality in such studies typically refers to a space, time, occupation, or event that is best described as “betwixt and between” (Turner, 1987): “*transitional [...], understood as a fluid and largely unstructured space [time, occupation, event] where normal order is suspended and which is experienced as both unsettling and creative*” (Sturdy, et al., 2006: 1). The concept of liminality originates from anthropology, where it refers to an in-between, transitional phase associated with major rites of passage. For example, adolescence is a liminal phase between child- and adulthood. The two key characteristics of liminality, thus, are *ambiguity* or “*in-betweenness*” and *temporariness*. However, in recent organizational research it has also been suggested that modern work-life is increasingly characterized by a paradoxical *permanent liminality* or a “*constant state of social limbo*” (Johnsen and Sørensen, 2015: 321). Most prior research has focused on examining both the positive and negative impacts of liminality on, for example, organizational boundaries, worker substitutability, creativity and identity (Beech, 2011; Garsten, 1999; Garsten and Haunschild, 2014).

In information systems (IS) research, the concept of liminality has been used to make sense of IS project implementations as liminal spaces that allow for creative play and transformation. In addition, the concept has been used to highlight the difficulties in bridging the boundaries between those involved in the project and those not involved when incorporating new ICTs back into organizational life (Wagner, et al., 2012). A few recent studies argue that liminal or “in-between” spaces and times are becoming more commonplace (Shortt, 2014; Sturdy, et al., 2006). Liminality is no longer associated only with major rites of passage or organizational changes; rather, modern professionals move in and out of liminal times and spaces as part of their daily life, even developing what has been called “liminality competences” (Borg and Söderlund, 2014). Subsequently, liminality is considered not as something given, but rather as something that is *continuously negotiated, structured and worked on* by the professionals. For example, individuals work on maintaining an appropriate mix of work and leisure during coffee breaks and business meals; they also work on making the liminal, blended space of a “home office” into a meaningful place of work in some situations, while making it into a meaningful place of leisure in others. The focus then shifts from studying the impacts of liminality, or liminality as a temporary phase, to studying it as a continuous practice – with the aim of understanding the kinds of liminality work that modern professionals engage in. Perhaps surprisingly, given the above-mentioned importance of ICTs in shifting work practices, prior management research has scarcely mentioned technologies in these continuous liminality practices, rather tending to focus on liminality in space and time only. Yet, it is clear that the use, and non-use of, for example, mobile devices, laptops, video conferencing, and instant messaging is inextricably part of the mixing and separating of work and leisure engaged in by the modern employee. In this paper, therefore, we define liminality, or more precisely, liminality work as a *continuous practice of creating, maintaining and breaking “in-betweenness”*. We study liminality work or liminality practices in the context of the modern workplace, which means that the “in-betweenness” may relate to *different aspects of the workplace* such as when and where to work, how to structure the work, and what technologies to use to support work.

In sum, the aim in this paper is to understand how workers perform new, fluid and distributed ways of working. In order to do so, we explore the different types of liminality work at Elisa<sup>1</sup> – a telecommunications enterprise headquartered in Finland. In Elisa, flexible and distributed work (labeled “remote work” inside the company) has become the new “normal”; it was described to us as “*just the way we work*” or “*a way of life*”. The senior management of Elisa actively encourages its employees to work remotely, i.e., from home or customer sites. The management provides its employees with the required ICT devices (smartphones, laptops), connectivity (4G network coverage, mobile data plans) and software tools (video conferencing, instant messaging). Our initial exploration showed that everyone we interviewed at Elisa considered “remote work” a success. They could not imagine themselves working otherwise or reverting to the “old days” of having a fixed office space. This homogeneous level of seeming comfort with a new way of working and increased “in-betweenness” (between home and office, work and leisure) lead us to the aim of trying to understand how this level of comfort is achieved. In particular, we are interested in exploring the kinds of practices people adopt to manage the “betwixt and between” nature of remote work. Therefore, we address the following research question: *What kind of liminality work do people at Elisa do to accomplish their daily practices?*

Our findings demonstrate four types of liminality work, *spatial*, *temporal*, *structural* and *technical*, that employees engage in to accomplish their daily practices. Each type of work has either the aim of *blending*, i.e., creating or maintaining some form of “in-betweenness” in space, time, structure and technologies; or the aim of *delimiting*, i.e., breaking liminality. The contribution of this paper is twofold. First, we contribute to the IS field by introducing the concept of *liminality work* to make sense of and theorize technology-mediated changes to the nature of work. We contend that digital technologies are crucial in how people manage and perform new forms of work. Second, the nature of digital technologies (as both durable and flexible) is linked to both the *persistence of liminality* in modern work life and the *ability of individuals to mix and separate* work and leisure (i.e., *do liminality work*) according to their preferences. Accordingly, by uncovering and describing the specific type of *technical liminality work*, we contribute not only to the field of IS, but also to management and organization studies that have, so far, focused mainly on temporal and spatial liminality, without explicitly recognizing that in the modern workplace the continuous negotiation of liminality is intricately related to ICTs.

The remainder of this paper is structured as follows: next, we outline the theoretical foundations of this paper by introducing the practice perspective for studying work, and the concepts of liminality and liminality work as the focal points of our investigation. We then outline our research design, including data collection and analysis methods, followed by the findings. We conclude the paper with a discussion of the practical and theoretical implications of this research.

## **Theoretical Background**

Our research is aimed at studying work (Barley and Kunda, 2001). In order to do this, we draw on the practice perspective (Nicolini, 2012) to guide us in exploring “what people do”. Given our interest in what people do in flexible and distributed working arrangements that rely heavily on ICTs, we further draw on the concepts of liminality (Turner, 1987) and non-material technological objects (Faulkner and Runde, 2013). The two concepts allows us to make sense of various aspects of modern work-life (space, time, tasks, technologies), the uncertainty and fluidity of which is *continuously negotiated, and worked on* by the professionals (Borg and Söderlund, 2014; Shortt, 2014; Sturdy, et al., 2006).

### ***Studying Work from a Practice Perspective***

Studying work has a longstanding tradition in Information Systems (IS) and related fields. Some classic pieces of research on the topic include the study of social and technical aspects of coal mining work (Trist and Bamforth, 1951), the study of the work practices of photocopier maintenance technicians (Orr, 1996), and the highly acclaimed research on the consequences that “smart machines” will have on the nature of work (Zuboff, 1988). A key principle in studying work is to look at work from the point of view of those

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<sup>1</sup> Elisa corporation (<http://corporate.elisa.com/>) has given us permission and expressed preference to be named in this paper.

who perform it in order to “*systematically investigate the concrete activities that constitute the routines of organizing*” (Barley and Kunda, 2001: 84). Given this principle, we chose to explore work at Elisa from a practice perspective (Nicolini, 2012), as it offers a useful conceptual framework for the study of “what people do”.

Practice perspective refers to a set of ideas or frameworks, the aim of which is to study concrete activities and their emerging outcomes (Nicolini, 2012), rather than abstract entities. Translated to the study of work, practice perspective is interested in examining the “doing” of work (*working*), which is considered to precede the emergence of such abstract concepts as “my job” or “work role”. Consequently, in *doing* the work, one’s job or work role is *performed* and continuously created and re-created. In more general terms, “*practices perform meaning and support identity, so that the question of what people and things are depends upon the practices in which they are involved*” (Nicolini, 2007: 893). Performativity of practices, thus, refers to the capacity for practices to not just reflect who people and things are, but to create who people and things are. There is some consensus around the definition of practices as “*embodied, materially mediated arrays of human activity centrally organized around shared practical understanding*” (Schatzki, 2001: 11). Practices are, thus, embodied by practitioners, and socially constituted, with shared understandings and know-how of practitioners about their practices guiding activities (Sandberg and Dall’Alba, 2009: 1353). Being materially mediated means that practices take place “*through and amid a variety of artefacts and objects*” (Nicolini, 2007: 893). It is recognized that artefacts and objects participate in the accomplishment of practice, make the practice durable over time, as well as connect different practices to each other across space and time (Nicolini, 2012).

Objects may include physical objects such as desks, chairs, office space, and paper documents as well as digital technology, including devices and software. In the IS literature, the central role of digital technologies in shaping the practices and identity of both organizational members and organizations has been demonstrated time and again (Barrett and Walsham, 1999; Carlo, et al., 2012; Gal, et al., 2014; Lamb and Davidson, 2005; Stein, et al., 2013; Tripsas, 2009; Walsham, 1998). Thus, in this paper we are particularly interested in digital technologies as key elements in the shift towards more fluid work arrangements. ICTs have a number of characteristics that make them relevant in the changing nature of work and liminality practices. First, ICTs are *technological objects* that have both a *material* and a *non-material mode of being* (Faulkner and Runde, 2013). A technological object is a structured continuant that has one or more uses assigned to it by the members of a human community (ibid.: 806). This means that a technological object is composed of distinct parts organized in some way. This arrangement endures across differences in place and time, and serves a purpose important to users (ibid; Leonardi, 2012). For example, the smartphone device is made up of components such as chips, screen, battery, camera (organized in a particular way, which endures across different settings) and serves multiple purposes related to connecting, informing and automating. Importantly, however, a smartphone is a combination of both material and non-material technological objects. A battery has a material mode of being – it has a physical form describable by certain attributes such as size and weight. The operating system, apps, and files (e.g., music, photos, documents, web pages) on the smartphone, conversely, have a non-material mode of being – their structure is a logical one (fundamentally that of binary code), rather than a physical one (Faulkner and Runde, 2013). What makes digital technologies so interesting is that while both material and non-material objects are continuants, giving durability to practices, non-material objects specifically also exhibit great flexibility in that their logical structure makes them (re)programmable and (re)combinable (Faulkner and Runde, 2010). For example, the operating system of a smartphone allows for the adding of apps, which in a sense ‘reprograms’ the object and assigns a new function to it. This flexibility of digital technologies makes it more likely, for example, for work and leisure tasks to be performed through the same device, creating both a potential need for some kind of liminality work and an object (tool) that also serves the purpose of managing “in-betweenness”. At the same time, it is possible that the smartphone’s nature as a continuant makes it also more likely that the created “in-betweenness” persists. These insights from the literature prove important when studying new technology-mediated ways of working. We now turn to the concepts of *liminality* and *liminality work* (Turner, 1987) to discuss how they can inform our study further.

### ***Liminality and Liminality Work***

The concept of liminality originates from the French ethnographer Arnold van Gennep’s work on rites of passage (originally published in 1909), with a particular focus on “life crisis” rituals (Turner, 1987). Van

Gennep focused on the entire rite of passage that an individual goes through to move from one social status to another, e.g., 'becoming of age' rituals. Only later, in anthropologist Victor Turner's (1987) work, we see a shift in focus, specifically on the transition or the liminal period, which he described as a period "betwixt and between". During the liminal period "*the passenger is ambiguous; he passes through a realm that has few or none of the attributes of the past or coming state*" (p. 5).

More recently, management and organization studies have taken up the concept of liminality, particularly focusing on liminal spaces and times, to make sense of the increasing fluidity of work, ambiguous working arrangements, and the disappearing of organizational boundaries (Garsten, 1999; Sturdy, et al., 2006). For example, a liminal space is defined as a space, "*that is on the 'border', a space that is somewhere in-between [...]; 'at the boundary of two dominant spaces, [...] not fully part of either'; spaces like these are not easily defined in terms of their use, are not clearly 'owned' by a particular party and are where anything can happen*" (Shortt, 2014: 2; based on Dale and Burrell, 2008: 238). In the workplace context, a "home office" could be considered a liminal space; it is part home, part office, but not fully either. Similarly, a train or car when used for traveling between home and work may be a liminal space where different work and non-work related activities can happen. Corridors, toilets, cafeterias are considered liminal spaces inside the traditional office (Shortt, 2014). A liminal time, similarly, can be defined as time on the 'border', in-between and not fully part of two dominant times. Accordingly, business meals and coffee breaks are often considered liminal activities; they blend work time with leisure time and anything from important million-dollar business deals to children's football games may be discussed (cf. Sturdy, et al., 2006). In IS research, implementation projects of new ICTs have been considered as liminal spaces "*betwixt and between the status quo and the new environment*" (Wagner, et al., 2012: 259). Establishing a temporary project team allows for those involved freedom from everyday institutional and organizational structures, fostering creativity and the potential for radical transformation and innovation (see also Henfridsson and Yoo, 2014). However, the transitory liminal phase must be bridged at some point if the ICT is to be incorporated back into organizational life. Liminality, thus, paradoxically facilitates the potential creation of more transformational ICTs, but it also creates difficulties in bridging the learning and knowledge boundaries needed to incorporate the new ICTs, generating resistance to change on the part of those not involved in the project.

Key characteristics of liminality often considered in prior literature include ambiguity and uncertainty (Beech, 2011; Wagner, et al., 2012). Liminality is also considered temporary, providing freedom from structural and institutional obligations, and a sense of community with those sharing the liminal experience (with a corresponding divide with those who do not) (Wagner, et al., 2012). In recent studies, it is argued that professionals have to develop liminality competences (Borg and Söderlund, 2014) due to a changing work environment in which liminal spaces and times are becoming more commonplace (Shortt, 2014; Sturdy, et al., 2006). Consequently, liminality is increasingly considered not as something given that is temporary, ambiguous, free, but rather as something that is *continuously negotiated, structured, and worked on* by professionals (ibid.). For example, Shortt (2014) demonstrates how liminal spaces can become transitory dwelling places, e.g., a shift from an ambiguous space to a meaningful place, when professionals construct them as meaningful. Consequently, corridors become informal 'catching up' territories, and toilets or backdoor stairwells can become meaningful places for privacy. Similarly, while a "home office" may be a liminal space, it becomes a meaningful working space (an office) in some situations, while it can become a meaningful leisure place in others. Sturdy and colleagues (2006) show how the liminal time of business meals is structured through long-established rules around civilized socializing and eating. Their liminality is purposefully maintained by the participants, who work on sustaining the appropriate blend of work and leisure during such meals. As indicated before, this shift also moves research away from considering liminality as a temporary phase to considering liminality as a more permanent (or at least continuous for a certain time) practice (cf. Johnsen and Sørensen, 2015).

Accordingly, the key point we draw from the current literature is that the *becoming* of, for example, a 'home office', 'work lunch', 'socializing task' or 'Bring Your Own Device' does not happen on its own. Rather, maintaining and breaking liminality requires *work*. Furthermore, the modern professional engages in multiple liminality practices or types of liminality work, not just related to space and time. In this paper, our aim is to explore how people at Elisa engage in various kinds of liminality work to achieve a notable level of comfort with their new, more fluid and technology-mediated working arrangements.

## **Research Design**

As our intent was to capture what kind of liminality work people at Elisa do to accomplish their daily practices, we chose a case study approach to get a deep and comprehensive view on this phenomenon (Eisenhardt, 1989; Walsham, 1995). Eisenhardt (1989) recommends the case study approach if “*little is known about a phenomenon, current perspectives seem inadequate because they have little empirical substantiation, or they conflict with each other or common sense*” (p. 548). The spatial, temporal and particularly technical and structural aspects of liminality work, as related to ‘remote work’, are yet unexplored, and therefore the case study offers a suitable research method for the present study.

### **Case Setting**

This study was conducted at a telecommunications enterprise (Elisa) in Finland. Elisa is over one hundred years old, and has been a publicly traded company for almost 20 years. It offers telecommunications, information communication technology, hardware and software, as well as online services. The company serves over two million consumers, including corporate and public administration customers. It provides globally competitive solutions for communication and entertainment, but also tools for improving the daily operations and productivity of different organizations. Thus, Elisa practices “remote work” itself, but also sells ICT solutions that support “remote work” and other flexible working arrangements. Elisa employed more than 4,000 people in 2014, and its revenue exceeded 1.5 billion euros. Elisa reports its performance by the two following segments: Consumer Customers and Corporate Customers. Its operational model is based on these same business units, including production and support functions.

The state of the economy, including the aftermath of the financial crisis, increasing workloads, and better technology were all facilitating conditions for “remote work” emerging as the new “normal” at Elisa. As highlighted above, the senior management of Elisa actively encourages its employees to work remotely and provides them with the required ICT tools. In 2007, Elisa renewed its procedural guidelines so that a big part of the employees’ work (at least 1-2 day(s) per week) would be spent somewhere else than in the premises of the organization. In 2013, the corporate headquarters were redesigned in line with this new way of working. There are no longer any individual office spaces in the building with the exception of the CEO’s office. Instead, the building is split into multiple functional spaces: an open space, and the so-called “market room” with comfortable sofas and round tables; a quiet space with desks, chairs and a ban on mobile phones; a sunshine spot for making the northern European winters more bearable; separated meeting rooms (for groups) or “phone booths”, as well as individuals lockers for storing equipment, documents or an extra pair of shoes.

As part of the redesign of existing working arrangements, corporate headquarters at Elisa has decided to introduce flexible work hours for their employees: “[*There are*] no regulations about where and when to work” (Pre-Sales). One reason is that the nature of work varies across the departments at Elisa, and consequently, the assumption is that each department or team should decide when to work. For example in Pre-Sales, one team meets face-to-face once a week, one team has decided to meet every third week, and yet another team meets once a week but via MS Lync. The sales support units and sales account managers operate primarily at the time convenient to their customers and collaborators. Consequently, as we will show later, every employee has some say in creating his or her own time discipline. As indicated, our initial exploration showed that the interviewees considered this new way of organizing a success and could not imagine themselves working otherwise or reverting to the “old days” of having an office with set working hours. Elisa’s stable turnover seems to offer supporting evidence that these new working arrangements are at least not driving employees to switch jobs.

### **Data Collection**

Given the case context, and the aim to explore how employees at Elisa experience, practice and manage “remote work”, we were interested in studying the dynamics between people and technology. In 2013, Elisa conducted a survey on “remote work” with the aim of investigating what kinds of consequences it has on the work practices, organizational structure, and on the effectiveness of the corporation. The main target groups for the survey were higher clerical workers and managers. We had the possibility to acquaint ourselves with the survey results as well as receive additional data in the form of organizational charts.

The survey results gave a broad indication of both positive and negative issues pertaining to “remote work”, such as efficiency of work, saving time on traveling, trust issues between managers and employees, blurring boundaries between work and leisure time, feelings of isolation, empowerment and control. Yet, given the limitations of the survey instrument, the results could not fully explicate the nature of “remote work”. The management of Elisa thus invited us to take a step back and examine the interpretations of the employees regarding these changes in work practices in more detail (Walsham, 1995). Specifically, we were asked to investigate the managerial implications with regard to the organization and control of “remote work” at Elisa.

The study presented in this paper is thus part of a larger research project at Elisa with a duration of five years. The data collection for this study was part of a first, exploratory phase, in which we conducted 16 qualitative semi-structured interviews. The interviews were conducted in February 2015 with employees (mainly mid-level managers) from the Corporate Customers Unit. This unit comprises four subdivisions: Operations, Information Technology Business Unit, Connectivity Business Unit, and Customer Interaction Business Unit. Each subdivision is divided into a number of subunits. We conducted the interviews in the Operations division, which includes: 1) Sales (Major Customers and Regional and Channel Sales), 2) Pre-Sales, 3) Post-Sales, and 4) Offering and Development. Our interviewees included twelve males and four females, and individuals ranging in age from their twenties to their sixties. Table 1 shows the interviewees’ department affiliation and roles.

**Table 1. Overview of Interviewees**

<b>Department</b>	<b>Role</b>	<b>Number of interviewees</b>
Sales: Major Customers	Vice President of Sales	4
	Key Account Managers	
Sales: Regional and Channel Sales	Sales Channel Manager	3
	Vice President of Regional and Channel Sales	
	Employee for Regional Sales	
Pre-Sales	Head of Pre-Sales	3
	Business Analyst	
	Pre-Sales Consultant	
Post-Sales	Head of Post-Sales	2
	Process Manager	
Offering and Development	Service Offerings Manager	4
	Service Offerings Employee	
	Senior Development Manager	
	Development Manager	

The authors conducted the interviews face-to-face with employees at the headquarters of Elisa in Helsinki. A few interviews were also conducted by online video calls with those employees working from home or at other premises of Elisa. The interviews lasted one hour each and were mainly held in English, but would sometimes include expressions in the local language. The interviews, which were guided by a semi-structured interview protocol, covered topics regarding how Elisa employees perceived the motivations and idea behind the “remote work” initiative, their current practices, key benefits and challenges, management of “remote work”, and technologies involved.

**Data Analysis**

The interviews were recorded and transcribed verbatim. We took notes during the interviews to make sure that also nonverbal aspects were registered. Field observation notes were made during a guided tour at the headquarters of Elisa and when key online tools were demonstrated. During lunch breaks, we asked our two contact persons to describe and explain specific issues related to the “remote work” initiative at Elisa and to explain how the organization was structured. We did not record these sessions but took extensive notes. Based on these activities, we were able to write the case description, which included the history of the “remote work” initiative, organizational setup, daily activities of the employees at Elisa, the technologies used, and the “remote work” practices.



After each interview, we wrote down comments and we discussed impressions, potential themes, and patterns in the data. In the weeks that followed the data collection, each author listened to the interviews and read the transcripts, after which we met to discuss our insights. In this process, we uncovered and documented specific practices related to liminality (characterized by a “betwixt and between” nature), such as ‘going to the gym during work time’, ‘receiving a business call while driving the car’, ‘having an office space at home’, and ‘going to the HQ to meet colleagues for lunch’. By listing and discussing these practices, we were able to group them into different types. Alternating between our empirical data and prior research on liminality, we were able to identify and group the work practices at Elisa into four types of liminality work: spatial, temporal, structural and technical. Each type of work was identified to have either the aim of blending, i.e., creating or maintaining “in-betweenness” in space, time, structure, and technologies used, or the aim of delimiting, i.e., creating clear demarcations in space, time, structure and technologies as we will describe next.

## Findings

One of the first things we noticed during and after the data collection at Elisa was that all the individuals participating in the study highlighted the “normalcy” of working remotely; often not even using the nondescript term of “remote work” to describe their activities. Individuals ranging in roles from key account managers in sales to IT development professionals, as well as people in high-level managerial positions could not imagine themselves working any other way:

*“The principle is: you do your work where you are”; “I don’t remember where I was for that meeting, but it was on [Microsoft] Lync. I was in the office... or home. Sometimes I do it over the phone. I do it everywhere, so I don’t remember.”; “It’s a way of living [...] I have done this for so many years.”* (3 professionals from Sales<sup>2</sup>; both Major Customers & Regional)

*“In our team we do not use the term remote work. Everything is mixed, in different cities [...]. So it really doesn’t matter if you are working in this or that office.”* (Offering and Development)

*“I wouldn’t actually go work for a company that didn’t have it available [...] I’m a vocal supporter of remote work [...] or mobile work as I like to [call it].”* (Pre-Sales)

This led us to explore how this level of comfort had been achieved among the people at Elisa. What we found is that while people at Elisa were indeed quite successfully working in new, more flexible and distributed ways, the work practices they carried out were in no way given or set out to them by, for example, senior management. Rather, each individual put in a significant amount of work (both habitual and purposeful) into creating, maintaining or breaking the flexibility and distribution, as and when needed. The necessity for this work became clearer as the interviewees began explaining their daily practices, and reflected on how they structured their work. Across different individuals, we found that the work practices were influenced by certain *limits* (margins or boundaries), some of which were given to the individuals and others, which were not. Three very clear limits that everyone drew on in doing their work were related to role, goals and technology. First, individuals’ *role* in the organization defined certain limits. For example, certain members of the Sales unit had very clear and delimited time schedules:

*“If we talk about sales persons. They have to work at eight o’clock when other teammates come here. To start calling [...] and stop [at] the normal time.”* (Sales: Regional and Channel)

Second, pre-defined *goals* and Key Performance Indicators (KPIs) were used to measure performance. Each Elisa employee received a list of prioritized goals from their direct manager at least semi-annually during ‘development talks’, and sub-goals were discussed and measured during regular team meetings:

*“If the quality is OK and the numbers are OK [...] Your goals are important and how good you do your work. Not where you do it or how many hours you do it.”* (Sales: Regional and Channel)

Third, *technology*, i.e. the devices and services provided by Elisa, such as a laptop, a smartphone, and VPN connection, facilitated flexibility at work, but also set clear limits in the technical possibilities:

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<sup>2</sup> We have chosen to associate quotes with department affiliations, rather than individuals or roles, in order to ensure individual anonymization and protect the participants’ privacy.

*“This [remote work] is the future. We’ll be sitting wherever we want [...] and as long as we have connectivity, everything’s fine. So, what you see here [shows tablet and mobile phone] that’s my ‘office outfit’. This is how I work.”* (Offering and Development)

*“We have a very strict policy about, for example, which mobile phones you can get. Also, [...] you only have three choices of computers. When we have these corporate computers, you are not allowed to load any software in it. For example, I’m having this meter on my wrist, and I want to follow my heartbeats [...]. But I can’t do it with my [work] computer.”* (Sales: Major Customers)

While the guidelines in Elisa specify a standard set of technologies to purchase, employees also have the choice of bringing their own device, provided they have the capabilities to set it up; moreover, the way any specific technology is used is *not* specified. Furthermore, for many Elisa employees limits around the daily management of physical space, time, structure of work, and specific norms, guidelines or rules were much less clear, necessitating to *work on their own limits* for themselves and in their teams:

*“This way of working, you have to have your own limits. I have lost the zones between free time and work time in my mind. We are not measured by time, but by euros. Our targets are so high that I know everyone in my team does a lot of overtime. [...] The other side is, sometimes I can go to the gym or do some sports. But I cannot say this to my colleagues. I know I am doing so much overtime, but I’m afraid that if I tell someone that I was in the gym until 11, then people might think you’re not very much in a hurry. I don’t want to take that risk.”* (Sales: Major Customers)

*“Working from home can actually be harder, because there’s nobody interrupting you. But then again, if you need to go to the grocery store, it takes you 15 min, it’s a good break, and I might go and water the plants outside. If I leave and go to the grocery store during the day or if somebody has a dentist appointment, we always tell everybody: ‘I’ll be offline for X minutes, I’m gonna do this’. And it’s fine. Our development team in [different city] has something called ‘week body’, and it means they go to the gym from 12-1 every Wednesday.”* (Offering and Development)

Working on such limits can be purposeful, visible and reflexive (i.e., a conscious decision to hide from colleagues that you are going to the gym during traditional ‘work time’) or it can be almost automatic and “normal” to the extent that it is not questioned and often done habitually. For example, while an Offering and Development team shared their “away time” freely, they could not tell us the *reason* why they had established this practice. This was “just the way” the team had been used to and still practiced.

In the following, we will examine both the purposeful and habitual forms of work more systematically. We will discuss four specific types of work based on different foci: *spatial, temporal, structural* and *technical work*. Each type of work has either the aim of *blending*, i.e., creating or maintaining liminality or some form of “in-betweenness” in space, time, technologies, and structure, or *delimiting*, in which employees break liminality (see overview in Table 2). It is important to note that in many cases, the four types of work *overlap and influence each other*. However, we have separated the different types of work here for analytical clarity, while we discuss their interplays in more depth in the discussion section.

Time and space, and their combination, in terms of specific time-spaces, has received the majority of attention in prior research on liminality (Shortt, 2014; Sturdy, et al., 2006). In our case, working on space and time, and often both (i.e., coming to the office just for lunch; taking coffee breaks with colleagues in a virtual coffee room when working at home) were also key aspects of new practices and becoming comfortable with “remote work” at Elisa. Added to this, however, we argue that structural and technical work are key in forming practices, which we will elaborate on in the following sections.

<b>Limit(s) given</b>	<b>Limit(s) not given</b>	<b>Type of liminality work</b>	<b>Aim of work</b>
Role and basic nature of work Goals and KPIs	Physical space Guidelines, norms related to space	Spatial work	Delimit or blend space
Devices, services and	Time	Temporal work	Delimit or blend time

software (technologies)	Guidelines, norms related to time		
	Structure of work Guidelines, norms related to structure of work	Structural work	Delimit or blend tasks
	Use of technologies; 'Bring Your Own Device' Guidelines, norms related to use of technologies	Technical work	Delimit or blend technology-task couplings

### Spatial Work

A liminal space refers to a space, “that is somewhere in-between [...]; ‘at the boundary of two dominant spaces, [...] not fully part of either’; spaces like these are not easily defined in terms of their use, are not clearly ‘owned’ by a particular party and are where anything can happen” (Shortt, 2014: 2; based on Dale and Burrell, 2008: 238). Spatial liminality work in this paper, thus, refers to a continuous practice that may, for example, shift this border, provide or erase temporary definitions and ownership for the space, and use the space for particular or a mixture of activities. In simpler terms, we find that employees at Elisa work on both delimiting and blending space (Table 3).

When **delimiting space**, individuals work to carve out a clearly demarcated space for themselves over which they have temporary ownership, and which has a clearly defined function. For example, many Elisa employees separate themselves into noiseless rooms both in the office and at home when they need a clearly demarcated and defined “intense working” space, where interruptions are minimized. At other times, they specifically place themselves in spaces defined as “open” and meant for interactive work:

*“[In the HQ] we have this open area, which is meant for interactive working. People can come to me and [ask questions]. And then we have private rooms, which sometimes are used wrongly. Then we have this library. And even though it’s an open area, the rules there are that your mobile phone has to be off. You cannot discuss with anybody. It’s a totally silent area. You can have the place for concentration, also in [HQ].”* (Sales: Major Customers)

Another form of delimiting spatial work is when face-to-face (F2F) physical co-presence is purposefully chosen and preferred for particular tasks and events, such as first-time meetings with customers, workshops, creative-, emotional-, and problem-solving tasks:

*“We should meet more face-to-face. [...] Lync meetings are pretty good when you talk about numbers and things like that, but when you need to evolve or make progress and workshops and things like that, [then] I think it’s much better to be face-to-face.”* (Sales: Regional and Channel)

Conversely, when **blending space**, individuals work on the opposite, often erasing a clearly defined function for a space and using it for multiple things (e.g., working from their boat):

*“Someone is at home, somebody might be in their summer cottage, and somebody might be in the boat or... tent, even. I don’t care [...] If I start my morning at home, I have the first meeting at home. Then I drive here [HQ] and, for example, I plan to go to lunch. And there’s a half-an-hour meeting before my lunch. I can drive my car into the parking lot, then I climb up to the floor of our lunch place, and I have the meeting, sitting there on the bench, next to the lunch bar [...] One downside is that it sometimes creates situations, which are hazardous. For example, this morning I had a meeting in the car, which was in Lync and I had this Lync display placed in the console of my car. That’s not good, but people do that.”* (Sales: Major Customers)

Only a minority of the employees we interviewed have an office space at home. Instead, they work at the kitchen table, on the couch, or wherever they find it most comfortable. One of the interviewees explained that he might even answer a business phone call while jogging:

*“So if someone needs to contact me, please be advised that I might be huffing and puffing [laughter].”* (Pre-Sales)

Instead of physical co-presence in a delimited space, meetings are held over the phone in the car, often in parking lots. Instead of flying in experts from all over the country, video meetings over MS Lync are conducted, creating a space “in-between”, where customers and Elisa employees, who are often physically located hundreds of kilometres apart, can come together. In the case of physically separated development teams, always-on video portals function as the “in-between” spaces connecting multiple locations, different people and serve multiple functions:

*“With [another city] we have the video screen open all the time. It’s on mute. But when somebody needs to ask something we can just unmute. We see them working and they see us doing whatever.”* (Offering and Development)

<b>Aim: delimiting space</b>	<b>Aim: blending space</b>
<ul style="list-style-type: none"> <li>- Separating oneself into a room (in the office, at home, at customer site) with no external noise; Working in an “office space” @ home; Sitting at specific tables in the open office</li> <li>- Meeting with customers first time F2F</li> <li>- Meeting F2F if workshops; F2F for creative-, emotional- or problem-solving tasks</li> </ul>	<ul style="list-style-type: none"> <li>- Working everywhere (home, boat, summer cottage, car, train); Working on the couch, at the kitchen table @ home</li> <li>- Having meetings over phone in cars, parking lots, @ home</li> <li>- Having video meetings or always-on video portals to create a new “in-between” space between two cities</li> </ul>

**Temporal Work**

A liminal time can be defined as time that is on the ‘border’, somewhere in-between two dominant, traditionally separated, times, not fully part of either; not easily defined in terms of its use, and not clearly ‘owned’ by a particular party (adapted from Shortt, 2014). With temporal liminality work, we thus refer to a continuous practice that may, for example, shift this border (e.g., shift the border between work and leisure times), provide or erase temporary definitions for the liminal time (e.g., define travel time as work time or as leisure time), and use the time for particular or a mixture of activities. Again, we find that people at Elisa work on both delimiting time and on blending time (Table 4).

**Delimiting temporal work** refers to practices that individuals enact with the aim of clearly demarcating temporal zones (with a beginning and end), and which have clearly defined functions or purposes. For example, Elisa employees commonly set clear limits for themselves and others about when to work and when not to work, practicing not responding to e-mails during evenings or weekends, while also not going jogging or shopping during traditional work time:

*“For me it has always been very easy to tune out – driving in and driving out from [home location] was leaving everything behind. Very clear cut.”* (Sales: Major Customers)

*“Every time I stop working, I am ‘de-packing’, putting the laptop to the back, and it’s kind of a habit, that now I’m kind of closing the day and I’m closing the phone as well. I’m not checking any e-mails after that. So it’s kind of a tradition that this is the end of my workday.”* (Pre-Sales)

*“Before holidays, I start at least 1 week before I leave... I have to start this kind of transfer, I have to block all the communication holes that somebody might contact me.”* (Sales: Major Customers)

Some employees considered themselves “naturally” good at setting such temporal boundaries; others use travel time or “end-of-day rituals” for “switching”; yet others described painstaking preparations that were needed to carve out undisturbed vacation time.

When **blending time**, the focus instead lies on enacting practices with the aim of creating blurry temporal zones, with no clear beginnings and endings, and with mixed functions or purposes. For example, as much as Elisa employees set clear limits about when to work and when not to work, they break those same limits by reading and responding to their e-mails in the evenings, weekends and even when on holiday. Given that performance is often measured by goal achievement and not time spent on a specific task, many people also jog, go to the gym or the grocery store during traditional working hours:

*“I like to read my e-mails first when I wake up and [...] [as the] last [thing] when I go to sleep. And if I can’t sleep and I wake up, for example three o’clock, I read my mails.”* (Sales: Major Customers)

*“It requires a lot of flexibility [...] when there’s a huge task, you don’t count the hours. But if the situation is more relaxed, I usually call my boss [to tell] that I’m going jogging in the middle of the day. [...] I feel that I need to tell him. Otherwise, it would feel like stealing, somehow. But he really isn’t interested. He keeps on telling me that, ‘Please don’t’. As long as you meet your target, it’s OK. [...] I think it’s a work ethic thing. From the 1800s or something.”* (Pre-Sales)

*“I do more when working from home; start at 6 a.m.; can go jogging midday; every 2 hrs I look at Facebook or watch TV; 12 hrs workday (with breaks); I work sometimes to midnight; Elisa loses nothing.”* (Sales: Regional and Channel)

Instead of using travel time for clear “switching”, in temporal blending it is often used as work time:

*“I needed to be present at 12 o’clock on Friday [at a family event]. My wife was driving the car, and I was working the whole time when we drove from [city A] to [city B]. So, I was very happy to be able to work full-time with no exception, with no limits at all.”* (Sales: Major Customers)

Interestingly, typical “in-between” times in traditional physical offices (e.g., coffee breaks) are re-created virtually:

*“Friday afternoon we have coffee breaks with this group by video [laughter]. Everybody is looking through video and sometimes we have [...] that everybody shows if they have pets [laughter] [...] you need these kind of elements.”* (Pre-Sales)

<b>Table 4. Temporal Work (Illustrative Examples)</b>	
<b>Aim: delimiting time</b>	<b>Aim: blending time</b>
<ul style="list-style-type: none"> <li>- Setting clear limits for oneself and others not to work during evenings or weekends; Jogging, shopping, etc. is not done during work time; Maintaining a 8 a.m. to 4 p.m. job</li> <li>- Preparing for holiday time one week before the holiday to prevent work from creeping into leisure time</li> <li>- Using travel as a clear boundary between work and leisure times</li> <li>- Performing “end-of-day” rituals (e.g., packing up laptop, switching off work phone)</li> </ul>	<ul style="list-style-type: none"> <li>- Losing the zones between free time and work time (e.g., responding to e-mails in evenings and while on holiday)</li> <li>- Taking a nap/jog; watering plants, or going to the grocery store during work time; Going to the gym in the morning, during the day</li> <li>- Using travel time as work time</li> <li>- Creating “in-between” times at work (e.g., coffee breaks) even when working from home (virtual coffee rooms for teams)</li> </ul>

**Structural Work**

Besides spatial and temporal work, we also found that people at Elisa performed what we label as structural work, which focuses on delimiting or blending *tasks* (Table 5). In line with liminal times and spaces, a liminal task can be defined as a task somewhere in-between two dominant, traditionally separated, tasks, not fully part of either, and not easily defined in terms of its purpose. With structural liminality work, we thus refer to a continuous practice that may, for example, provide or erase temporary definitions for such liminal tasks. For example, meetings – traditionally a blend of work and catching up

with colleagues – can be enacted as such, but can also be defined and performed as pure work time with social pleasantries kept to a minimum.

**Delimiting** structural work focuses on creating clearly demarcated tasks (and their particular time-spaces). For example, in most workplaces clear boundaries between the tasks of meetings and answering the phone are performed, so that the two are rarely blended. At Elisa, we found an interesting tendency to delimit the task of meetings to highly structured, pre-planned coordination activities, particularly when the meetings took place virtually:

*“I think virtual meetings have also shortened the typical meeting time. So we have quite many 30-minute meetings [...] When you work virtually you typically prepare much better. So you have the presentation materials [...] Also maybe there is not that much, let's say, negotiations during the meetings anymore that you typically have in the meeting room.”* (Post-Sales)

Similarly, a number of tasks have become increasingly confined and specific. For example, one interviewee notes on the growing tendency to use very short e-mails with clear instructions for specific tasks when working remotely. PowerPoint presentations done virtually follow the same trend:

*“Usually, [you receive] one-line assignment, (do this). [...] if you are doing PowerPoint, they must be as simple as possible. I don't know, maybe it's the culture or is it just the way to present things, because [...] the message must be so clear.”* (Offering and Development)

Conversely, the **blending of tasks**, such as the mixing of formal meetings and checking e-mails, tends to happen often when working at the office (the traditional working space). Here we would like to draw attention to two interesting cases of task blending: coming to the office for lunch and for “accidental bumps” or impromptu meetings. Both cases describe situations where people typically work from home or customer sites, but then go to the office specifically to have lunch or impromptu meetings with colleagues. Hence, instead of coming to the office for traditional work tasks, these individuals go there for blended tasks that combine networking, socializing, eating, working, and meetings:

*“I do have a habit that I come in from time to time just to hang around and bump. Cause collisions. Accidental meetings and chit-chats.”* (Sales: Major Customers)

*“Impulsive discussions with my boss are lacking. She's so busy, I cannot disturb her online, but if I were in the same physical space I could bump into her over the coffee machine.”* (Pre-Sales)

*“It's the salad bar and the people - the two reasons I come here [to headquarters].”* (Pre-Sales)

**Table 5. Structural Work (Illustrative Examples)**

Aim: delimiting tasks	Aim: blending tasks
<ul style="list-style-type: none"> <li>- Clearly defining and delimiting tasks when working outside the office (e.g., confined assignments; short emails)</li> <li>- Clearly defined meeting structure when virtual (e.g., short, pre-defined, ‘no-negotiating’ meetings ; “simple” PowerPoints)</li> </ul>	<ul style="list-style-type: none"> <li>- Coming to the office for lunch (working from home or elsewhere rest of the time; blending work and socializing while at the office)</li> <li>- Coming to the office for “accidental bumps” (serendipitous meetings resulting from running into someone)</li> </ul>

**Technical Work**

Technical liminality work focuses specifically on task-technology couplings as all work at Elisa is performed via or amid specific technologies. With liminal task-technology couplings, we refer to couplings that are not easily defined in terms of their purpose. For example, the coupling between a video portal and the task of connecting two development teams in different cities is one that is not easily defined. This coupling may be enacted in a very clearly demarcated way where the portal is switched on for only brainstorming activities; or it may be enacted in a very blended fashion where the portal is in an ‘always-on’ mode, allowing for coffee breaks, brainstorming and meetings simultaneously. Consequently,

technical liminality work refers to a continuous practice that may, for example, provide or erase temporary definitions for such task-technology couplings.

By doing **delimiting technical work**, people aim to create clearly coupled assignments between tasks (time-spaces) and technologies, for example by having two smartphones and two or more separate e-mail accounts specifically designated for either work or leisure tasks:

*“I try to keep them [devices] separate. I think that the tools that are given to me by work are for work, [but] I do surf the web with my work [devices] obviously. [...] The voice channel is by far the most used channel and also the desktop sharing. So that you can sort of co-create documents and presentations. [...] Seeing the person [F2F] that you’re talking to is quite important the first couple of times [...].”* (Pre-Sales)

*“I have my own laptop and my own cellphone. I had my own cellphone before and I never gave it up and I use that for my personal purposes. And I think I will keep it, because the e-mails are coming to the phone as well and if I see that there are four new e-mails during my free time, I don’t like that thought.”* (Pre-Sales)

Some Elisa employees also use specific technology for specific tasks such as MS Lync for instant messaging and for checking if colleagues are available or creating Skype groups for different tasks:

*“I always have like 30 different Skype group chats available. We always create task specific channels where all the necessary people are available.”* (Offering and Development)

Conversely, with **blending technical work** people create loosely coupled assignments between tasks and technologies that can be mixed; for example, when work e-mails come to both personal and Elisa devices, when e-mail accounts contain a mix of personal and work e-mails, and so on:

*“I have only one e-mail address. I know that in Elisa, [...] you should have a personal e-mail address and the Elisa e-mail address should be used only for work issues but I use only Elisa’s e-mail.”* (Post-Sales)

Often, both delimiting and blending is done simultaneously:

*“BYOD here works if you have a little bit of a technical knowledge needed to set up the groups, install all the necessary applications and configure them. Every developer has Mac computers now [BYOD]. All the others use Windows machines. The laptop [Mac] is only for my work use. So I have a personal laptop at home, I don’t want to mix those. I have two phones. I don’t use the other phone. The other phone was what the company provided me but I didn’t like it so I just decided to use my own. And that is mixed (personal and work). But e-mails are separate for private and work.”* (Offering and Development)

**Table 6. Technical Work (Illustrative Examples)**

Aim: delimiting technology-task couplings	Aim: blending technology-task couplings
<ul style="list-style-type: none"> <li>- Separating personal and Elisa devices</li> <li>- Separating personal and work e-mail accounts</li> <li>- Using specific technology for a specific task (e.g., Skype group chats per each task)</li> </ul>	<ul style="list-style-type: none"> <li>- Using the same device (phone, laptop and/or tablet) for work and private purposes</li> <li>- Using the same e-mail account for both work and private purposes</li> <li>- Bringing your own laptop or phone to work and using it for both work and private purposes (BYOD)</li> </ul>

## Discussion and Conclusion

Our findings show that liminality or “in-betweenness” in the modern workplace, and the associated freedoms and uncertainties, is not something given; rather individuals work on maintaining, creating and breaking *spatial, temporal, structural* and *technical* liminality. In the following section, we discuss the

interplays between these different types of liminality work as well as develop initial propositions that summarize our theorization about *liminality work*.

### ***Theoretical Implications***

While in our findings we have separated the different types of liminality work for analytical clarity, it is also evident that often people do spatial, temporal, technical and structural work together. For example, when always-on video portals are used to connect employees in various cities, spatial work is involved as the video portal creates an “in-between” or a blended space between the two cities. Temporal work is also involved, for example, when these always-on video portals are used for having coffee breaks (blended time between work and rest). Technical work, crucially, is linked to both spatial and temporal work. For example, when the video portal is on mute, the “in-between” space exists in a kind of passive state; when the portal is un-muted, the “in-between” space is turned into a temporary meaningful place for having a meeting or brainstorming. This new space is created by the video portal, which may be used for an “in-between” time. Our data show cases of mixing work and leisure (a coffee break), or a clearly defined time (a brainstorming meeting) by people working in their offices, summer cottages, boats and homes, while running the video portal software on their various devices that they may also use for chatting with friends, looking at photos, and surfing the web. This example demonstrates how three types of liminality work (i.e., spatial, temporal and technical) are performed jointly.

Based on various such interplays observed in our data, we would like to highlight three broad patterns, which emerged particularly strongly. We phrase these patterns in terms of sets of closely related propositions that could guide future research on the topic. We also consider some of the key implications of these patterns in light of extant research.

First, our findings indicate that the more people erase clearly defined functions for different spaces and times by working in the car, train, boat, and during their vacation; connecting to everywhere and everyone via MS Lync, and Skype, the more every task performed becomes highly structured, purposeful and delimited. Meetings become shorter, more specific, pre-defined and prepared. One-line e-mails become more common. Specific technologies are always used for specific tasks, e.g., MS Lync instant messaging is always used for checking someone’s availability. Thus, we propose:

***Proposition 1a:*** The more individuals blend space and time, the more they delimit the structure of the work itself (i.e., perform delimiting structural work).

This rise in delimiting structural work has the interesting consequence of also creating the need for the opposite: blending structural work. Given that blending spaces create more delimiting structural work, it is perhaps unsurprising that people turn to delimiting space in order to blend tasks: practices such as going to the office for lunch and for “accidental bumps” arise. When working outside the office, people make sure their tasks are highly structured and clearly defined. In contrast, they now go to the traditional workspace to participate in the “in-between” tasks of lunches and serendipitous chats in the corridors where tasks of working, resting, networking, socializing and eating are combined. Thus, we propose:

***Proposition 1b:*** The more individuals blend space and time, and, thus, delimit the structure of work, the more they also start blending the structure of work. The more individuals blend the structure of work, the more they delimit space.

The phenomenon here can be described as a kind of ‘reversal of contexts’. On the one hand, technology-driven blending of space and time, which manifests largely in *work being performed outside of the traditional work context, drives traditional work tasks* (e.g., meetings; e-mails) *into becoming increasingly structured*. Conversely, increasingly structured work tasks draw attention to the importance and need for spontaneity and serendipity, which is regained through a *return to the traditional work context to perform non-traditional work tasks* (lunches, breaks and impromptu corridor chats). To our knowledge, this ‘reversal of contexts’ phenomenon has not been explicitly studied in extant IS research. As such, it provides an interesting opportunity for further explorations regarding the way in which technology-mediated practices can enact new ways of working and reverse existing perceptions of traditional work contexts.

Second, our findings show that the more individuals blend space and time, the more they must also negotiate with themselves and others (colleagues, supervisors, family) when and how to advertise or hide



the spatial and temporal blending work they do. We encountered individuals who chose to hide their temporal blending of work; for example, they decided to hide leisure activities undertaken during traditional working hours when working from home. Conversely, we also encountered individuals who advertised their “away” status on tools like MS Lync, freely sharing their activities, such as going to the dentist or for a jog, with colleagues and supervisors. Interestingly, some felt obliged to advertise their status, because not doing so would amount to a perception of “stealing”. The bureaucratic social norms around work and control (cf. Weber, 1947), originating from the days where work meant physical co-presence and control meant actual or imagined line of sight (i.e., panopticon), are still ingrained in the modern day employee, resulting in an interesting mix of both rigid and flexible practices. Thus, we propose:

**Proposition 2:** The more individuals blend space and time, the more they need to negotiate how to advertise or hide their liminal state due to lack of clear rules or norms.

This finding echoes the study of Sturdy et al. (2006), who noted centuries’ old etiquette and norms around social meals guiding and structuring the liminal time of a modern business meal at a CEO’s house. While liminality, thus, offers freedom from some institutional and organizational structures (Wagner, et al., 2012), other norms and structures are still adhered to. The negotiation of what to show and what to hide also suggests the potential need for modern professionals to obtain new liminality competences (Borg and Söderlund, 2014) related to self-presentation and identity work (Beech, 2011; Tansley and Tietze, 2013). This would also include a discussion of the identity-orientation of individuals, i.e., how they develop self-conceptions relative to others and how these conceptions influence their motivations and interactions (Brickson, 2007; Gal et al. 2014). For senior management, this lack of clear rules around liminality work brings up the question of their role in managing and guiding such work, particularly when it comes to institutional and organizational norms. In our study, we frequently found managers expressing doubt on how to deal with new norms emerging from everyday practices of “remote work”. For example, there is no official rule at Elisa that requires one to switch on the video channel when having an online meeting. Many employees, in fact, prefer to use just the voice channel as they may feel self-conscious about their appearance, particularly when working from home. For managers, however, this presents an interesting dilemma as reduced visual cues make it more difficult to develop rapport and trust with one’s team; yet enforcing the use of video channel may pose similar difficulties. In sum, emerging social customs and organizational norms, driven by new ways of technology-mediated working, as well as the management of these customs and norms, begs for more research.

Third, we argue that in the kinds of workplaces where liminality work becomes possible and necessary, ICTs are not just tools used to do tasks, they are an inherent and often invisible part of the environment, similarly to desks, chairs and sofas, *through* and *in* which work is conducted. All of the liminality practices described in this paper (Tables 3-6) are intimately linked to technical liminality work. Even the practices that sound ‘non-technical’, such as meeting customers face-to-face, are linked to technical work of choosing not to use a video conference and instead taking one’s “office outfit” (typically a laptop and a smartphone) to the customer site. Interestingly, we note that the more individuals blend space and time, the more they do both delimiting and blending technical work. The more people erase clearly defined functions for different spaces and times, by working in the car, train, boat, and during their vacation; or connecting to everywhere and everyone via MS Lync and Skype; the more they create both clearly defined couplings between tasks and technologies (e.g., using a separate Skype group chat for each separate task) and very loose couplings (e.g., using the same smartphone device to perform both work and leisure tasks from wherever they are located). These observations are in line with recent research in the IS field that discusses the entanglement between the social and the material by the use of affordance theory. The same digital technology may offer different action possibilities for different users or even the same user in different situations (Majchrzak and Markus, 2013; Strong, et al., 2014). A smartphone is (re-)programmable (Faulkner and Runde, 2010); it can perform multiple (and changeable) functions and, thus, it can link loosely to many tasks. As such, it becomes part of blending home and office spaces, work and leisure times. At the same time, the component-based, modular structure of the smartphone means that it can also be tightly coupled to specific tasks and become part of delimiting work and leisure times. Individuals can choose to have one e-mail account or separate e-mail accounts with different settings (e.g., push versus pull notifications for new e-mails), allowing for less or more clear separation between work and leisure. Therefore, we propose:

**Proposition 3:** The more individuals blend space and time, the more they do both delimiting and blending technical work.

In sum, we observe that the changes introduced to the nature of work by distributed arrangements (such as “remote work” at Elisa) go hand-in-hand with the blending of space and time. The ability to work from anywhere, anytime naturally blurs the boundaries between home and office space and work and leisure times. Digital technologies are a key element in how individuals accomplish their daily work and are part of how they both mix and separate work and leisure, home and office. At the same time, the increased blurring in space and time creates the need to (re-)introduce clear separations elsewhere – typically in work structure (tasks) and also in the use of technologies (e.g., separating work and personal devices, e-mail accounts, and the like). We, thus, suggest that the nature of digital technologies (as both durable and flexible) is linked to both the *persistence of liminality* in modern work life and the *ability of individuals to mix and separate* work and leisure (*do liminality work*) according to their preferences.

### **Practical Implications**

Due to new forms of organizing, driven largely by fast-developing digital opportunities in today’s society, more and more organizational members will, in their daily work, experience fluidity, uncertainty and freedom of the kind reported in this study. As a result, they will need to develop relevant delimiting and blending practices to negotiate these uncertainties and freedoms. At Elisa, and we suspect many other organizations, such practices have become the new “normal” in the way work is accomplished. While we think that employees and managers will find the practices described by our empirical findings familiar, it is less certain that practitioners will think of their work in terms of the theoretical concept of liminality. Intuitively, our interviewees do talk about limits, zones, mixing and creating clear cut-offs. Thus, we hope that our identification of the four types of liminality work (spatial, temporal, structural and technical) and the two potential aims of each type of work (blending and delimiting) will facilitate both employees and managers in acknowledging the presence of these types of practices. Furthermore, identifying the different types of liminality work is analytically helpful for practitioners in making sense of their own practices, while understanding the links between the different types of work, as outlined in the propositions, can make broader, typically *hidden* patterns visible. For example, many Elisa employees recognized and reflected on their work tasks becoming more structured when working “remotely”. Our findings uncover and highlight the connection between work that delimits tasks and work that blends spaces and times. In sum, our study is able to make liminality practices characteristic to modern workplaces more visible and open for discussion and dialogue among and between employees and managers, thereby, informing their own practices. In future research, studies employing observational data collection methods (e.g., diary or field studies), in addition to interviews, could further advance our understanding of these performative aspects of liminality practices.

Why should practitioners care? Based on our analysis, it seems that both employees and mid-level managers at Elisa did a lot of conscious and unconscious work to define, enact, and evaluate their daily work practices. Some employees were able to define natural boundaries between work and private life; however, others less so, leading to rising insecurities about not knowing when to tell/not to tell their manager or colleagues when they were, e.g., going jogging during work time. For more and more organizations, *work tends to blend into leisure time, while leisure blends less into work time and is often hidden*. While at Elisa everyone we interviewed was, at the moment, satisfied with their “remote work” practices and successfully achieving their goals, it is important to be aware of potential unintended consequences that particularly the lack of clear norms and rules around space, time and tasks can lead to.

Managers have the opportunity to lead the way by setting guidelines, providing coaching, and giving feedback on organizational members’ work practices. At Elisa, some employees voiced the lack of guidelines and coaching from their manager. Therefore, it is not sufficient to set goals and KPIs; what is needed relates more to designing, discussing, and evaluating these new forms of working. Given that deeply ingrained bureaucratic principles of work still exert their influence, it appears that setting guidelines and building trust is important not only to new employees but also to those more experienced. With this in mind, in future research, more emphasis could be placed on the differences between the blending and delimiting work carried out by managers and employees, informing managerial practices specifically.

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