Ute Rademacher, Ulrike Weber, Cassandra Tyana Zinn[*]

# Drawing the Line – Turning Social Practices of Smartphone Use Into (In)formal Rules and Regulations[**]

## Abstract

Today's workplace is strongly influenced by digital information and communication technologies (ICT). Remote work raises new demands regarding employees' availability as well as work engagement and requires new rules. However, how social practices regulate smartphone use in organisations has seldom been investigated. This paper explores the use of smartphone technology in organisations and how to implement formal rules. The analysis of 12 qualitative in-depth interviews with employees in a profit-oriented and a public service organisation confirms and enriches the types of usage as suggested by Orlikowski's work on information technologies in organisations. In addition, we suggest reframing the non-enactment of smartphone technology as a constructive practice of ensuring productivity and employee well-being instead of being caused by a lack of technical know-how, or fear of losing power. In addition, three different types of practices for formally governing work-related smartphone use in *new work* arrangements have been identified: a) formalising the implicit communication etiquette, b) designing rules for specific organisational contexts and c) making use of technical resources. From a practical point of view, we recommend managers introduce a participatory process to design a formal policy that builds on established social practices.

Keywords:    smartphone use, new work, psychological detachment, socio-material practices
            JEL: O14, O32, O33, M14

## Introduction

Today's workplace is strongly influenced by digital information and communication technologies (ICT). They transform virtual work into the 'new normal' as team members work from a variety of locations and adopt new work habits (Gee, 2018; Pillet & Carillo, 2016; Raghuram, Hill, Gibbs, & Maruping, 2019). Digital technology results in new demands regarding employees' availability and work engagement since physical presence, no matter how ineffective it was as a criterion, has ultimately ceased to exist. Additional theoretical perspectives and

* Ute Rademacher (corresponding author): Hochschule Emden-Leer. E-Mail: ute.rademacher@hs-emden-leer.de
  Ulrike Weber: International School of Management. E-Mail: ulrike.weber@ism.de
  Cassandra Tyana Zinn: International School of Management. E-Mail: cassandra.zinn@mail.de.

empirical work is needed to better understand the blending of technology and work in organisations as technology is core to any organisational activity. Orlikowski and Scott (2017) argue that technology, work, and organisations are no longer discrete entities but mutually dependent ensembles. Thus, the concept of "socio-materialism" highlights the inherent inseparability between the technical and the social (Orlikowski, 2007; Orlikowski & Scott, 2017). This theoretical perspective explores the multiple, emergent, and dynamic socio-material configurations that constitute contemporary organisational practices (Orlikowski & Scott, 2017). Yet, socio-material configurations are not stable but both emergent and contingent. To investigate *how* people interact with digital technologies in their ongoing organisational practices and develop structures governing their use, Orlikowski (2000) suggests a practice lens for organisational technology research. This perspective examines how human interaction with technology shapes emergent structures that might lead to formal resources, rules and policies as a result. This study contributes to organisational technology research by providing such a practice lens.

Since smartphones have become the most commonly used digital device in many organisations (Colbert, Yee, & George, 2016; netimperative, 2017), the focus of this empirical study is on work-related smartphone use. Employees in a public service sector organisation and in a profit-oriented organisation reflect in personal in-depth interviews how new social practices emerge based on their smartphone use. In addition to Orlikowski's framework, the study draws attention to governing temporary disengagement from smartphones. This 'non-enactment' of technology has mostly been regarded negatively as a lack of interest, fear, or potential conflict (Orlikowski, 2000, 2007, 2009). However, this perspective is of particular importance because extensive use of smartphones makes it increasingly difficult to 'draw the line' and detach from work physically as well as psychologically (Djerks, van Mierlo & Schmitz, 2014).

By providing empirical data, this study contributes to the emerging but limited research domain of socio-materiality from a new perspective. Specifically, it examines employees' work-related use of smartphones and, as a next step, explores how smartphone communication norms evolve which affect the acceptance of a formal policy. The purpose of the formal policy is to embody the socially formed smartphone practices and to ensure the employees' well-being and increased productivity.

## Theoretical Background and Research Questions

Technology and particularly smartphones play a crucial role in *new work* (Bergmann, 2019) as they allow the interaction with other team members, managers and clients with no or few limitations. Empirical studies have investigated the positive and negative effects of work-related smartphone use on users' productivity, increase of knowledge, work engagement as well as disruptions, physical and emotional stress (Carlson et al., 2017; Cavazotte, Lemos, & Villadsen, 2014; Derks,

van Mierlo & Schmitz, 2014; Michaelis, Wagner, & Schweizer, 2015). Most studies explore the effects of smartphone use on the individual or organisational level. However, it is often not clear how smartphone use changes users' behaviour resulting in the reported effects. This perspective reflects the view of smartphone use as an appropriation of structures inscribed in this technology (Orlikowski, 2000, 2007; Orlikowski & Yates, 2017). Alternatively, the socio-materialistic perspective on smartphone technology views smartphone use as an enactment rather than an appropriation of smartphone technology. We focus on human (inter)action and examine *how* smartphone users enact a set of rules and resources that structure their professional use of smartphones.

## Enactment of Smartphone Technology in Organisations

Based on exemplary case studies, Orlikowski (2000) suggests that individual and institutional conditions, as well as intended and unintended consequences, lead to different types of usage:

(a) *Inertia*: users decide to use the new technology to retain their existing way of doing things reinforcing and sustaining the structures governing the use of technology.

(b) *Leverage*: users decide to use the new technology to augment or to refine their existing ways of doing things reinforcing and enhancing existing structures, but also noticeably changing the technological tool and noticeably improving work processes, and

(c) *Change*: users decide to use the new technology to significantly alter their existing way of doing things transforming the current structures as well as significantly modifying users' work practices and the technological tool.

In this exploratory study, we will empirically explore from a practical perspective how members of a public service sector organisation and a profit-oriented organisation use smartphone technology in their organisations (Research Question 1).

## The Non-enactment of Smartphone Technology in Organisations

The socio-materialistic perspective bridges the gap between technological structures, organisational rules and resources, and the actual behaviour of technology users. However, significantly changing the existing way of doing things and using new technology is implicitly identified as the greater goal. Concerns, presentiment and limited use of new technology are believed to result from either being sceptical of new technology, not knowing technical features, or fearing the loss of status and prestige (Orlikowski, 2000, 2007, 2009). We believe this assumption neglects the view that refraining from using smartphones for business-related matters might also result from the perceived or anticipated negative effects. Research shows that smartphone users are increasingly absorbed by work-related matters, experience unpro-

ductive disruptions, work-family conflicts, and increased levels of stress (Carlson et al., 2017; Cavazotte, Lemos, & Villadsen, 2014; Michaelis, Wagner, & Schweizer, 2015; Zinn & Rademacher, 2019). Smartphones allow users to deal with work-related issues outside regular office hours and may lead to significantly more overtime when working from home (BAUA, 2018; Böhm, 2016; Boswell & Olson-Buchanan, 2007). In addition, organisations and customers seem to expect their business contacts to be increasingly available which is possible due to smartphones. For instance, 60 % of the German workforce engage in work-related tasks during leisure time at least once a week (Institut zur Zukunft der Arbeit, 2018). This technological immediacy triggers the impulse to reply at once to messages, even late in the evening, during weekends, and on holiday (Barber & Santuzzi, 2015; Djerks, van Mierlo & Schmitz, 2014). In addition, employees could be motivated to over-engage in order to disperse superiors' fear of both losing control and of decreased productivity in virtual work (Mellner, 2016).

Given the fact that working from home is on the rise and might remain on a high level after the Coronavirus crisis, explicit work–non-work boundaries are required to facilitate 'switching off' and to ensure employees' regeneration. Choosing to *refrain* from using a smartphone for work-related matters in *specific* situations differs from deciding to *generally refuse* to use smartphones for work-related issues. In this context, Etzion et al. (1998) coined the term *psychological detachment* to describe the state of mentally disengaging from work when being in another domain of life. Psychological detachment signifies a psychological state in which a person is neither physically nor mentally occupied by work-related issues (Etzion, Eden, & Lapidot, 1998). This state is surely not desired when an organisation's success strongly relies upon the work engagement of its employees. However, psychological detachment from work when being at home is a crucial prerequisite for recovering from work-related strain (Sonnentag & Bayer, 2005; Sonnentag & Fritz, 2007). Many empirical studies have proven psychological detachment to be a core component of recovery, resilience and even creativity (Cambier, Derks, & Vlerick, 2019; Derks, Brummelhuis, Zecic, & Bakker, 2014; Ghosh, Sekiguchi, & Fujimoto, 2020; Sonnentag & Unger, 2013; Sonnentag & Schiffner, 2019). The lack of psychological detachment from work not only leads to stress, fatigue, poor sleep quality, negative affectivity, and impaired coping with work conflicts but also reduced performance (Sonnentag & Schiffner, 2019). Thus, finding the balance between highly flexible and interactive work relationships and psychological detachment is required for *new work* arrangements in order to ensure productivity, efficiency, and employee well-being. Reframing the non-enactment of smartphone technology as a valuable practice of social interaction appears to be crucial because work-related matters increasingly intrude into the non-work sphere.

The expectations regarding employees' availability outside of regular working hours differ from organisation to organisation. In addition to national legislation, organisational norms contribute to the management of boundaries between work and

non-work. Considering norms and preferences on an organisational and individual level appears to be required when designing and implementing strategies for boundary management in organisations. As configurations constituting contemporary organisational practices are multiple, emergent, and dynamic (Orlikowski & Scott, 2017), measuring organisational norms through single measurements based on quantitative questionnaires takes too narrow a view. Qualitative research methods are required to explore different types of non-enactment of smartphone use in organisations and in doing so to enrich the socio-materialistic model of technology in organisations. Therefore, this study aims to systematically investigate different types of non-enactment of smartphone technology by members of a public service sector and a profit-oriented organisation (Research Question 2).

## Transition from Informal Rules to a Formal Smartphone Policy

Regular business-related use of smartphones generates informal communication norms for teams or organisations. These norms could be generic or limited to specific communication contexts, situations or user groups as socio-material configurations are emergent and contingent (Orlikowski & Scott, 2017). They may result in a new formal organisational policy as implemented by companies such as Daimler or the Boston Consulting Group (e.g., Daimler, 2014). Few studies have empirically explored how emergent informal rules morph into a formal policy for technology use in organisations. Therefore, this study aims to reveal how members of a public service sector organisation and a profit-oriented organisation contribute to a formal smartphone policy in their organisation (Research Question 3).

## Methodology

Given the explorative nature of this study and the research questions focusing on future organisational policies, a qualitative research design is advisable (cf. Sureth & Nachtwei, 2020). Twelve personal, in-depth interviews were conducted face to face with employees in their work setting by an interviewer trained in psychology. To reflect potential differences regarding the organisational cultures, participants were selected from the German public service sector organisation (PS) and from a consulting company (CC) in Northern Germany (Table 1). No formal smartphone policy had been introduced in any of the organisations.

### Sample Definition

We contacted participants on professional networks, social platforms and groups (e.g., Xing, LinkedIn) and provided no incentives other than a key summary of the results to avoid biases. Every participant that required permission from his or her organisation was granted it.

The sample encompasses a mix of female and male employees at their mid-career stage. We ensured a balance of males and females as well as family situation

(married/non-married, with/without children) (Table 1). Six consultants work in a profit-oriented business consultancy and five employees in the public service sector. One respondent preferred not to disclose their employer.

**Table 1: Sample Definition in Terms of Age, Sex, Family Status and Employer**

| Participant No. | Gender | Age | Family Status | Interview Length | Organisation |
|---|---|---|---|---|---|
| 1 | Female | 27 | Non-married | 26 mins | Consultancy |
| 2 | Male | 24 | Non-married | 39 mins | Consultancy |
| 3 | Female | 33 | Non-married | 55 mins | Consultancy |
| 4 | Male | 45 | Married, one child | 38 mins | Consultancy |
| 5 | Female | 32 | Married, one child | 31 mins | Public Service |
| 6 | Female | 55 | Married, two children | 31 mins | Public Service |
| 7 | Female | 36 | Non-married | 61 mins | Consultancy |
| 8 | Male | 25 | Non-married | 34 mins | Consultancy |
| 9 | Male | 31 | Married, one child | 51 mins | Public Service |
| 10 | Male | 45 | Married, two children | 40 mins | Public Service |
| 11 | Female | 41 | Non-Married, two children | 30 mins | Public Service |
| 12 | Male | 40 | Married, two children | 16 mins | Not disclosed |

## Data Capturing and Analysis

The interviews were arranged after the initial personal contact by telephone. The interviews lasted between 16 and 60 minutes according to respondents' contributions. All interviews were audio-recorded and detailed transcripts using the content analytical software f4/f5 was created (Dresing, & Pehl, 2018).

Participants were interviewed using open questions and further explored their initial statements in order to understand their social practices as well as their attitude towards a formalised set of rules and regulations. The interview guide comprised of the following topic clusters:

- *Introduction*: getting to know each other, conversation rules, privacy and data protection rules, documentation

- *Smartphone use in practice*: when, how and what is the smartphone used for? Perceived similarities and differences to other communication technology? Functionalities and structures?

- *Impact on working style*: Perceived changes through smartphone use, perceived advantages and disadvantages of their work-related smartphone use

- *Emotional relevance*: significance of the smartphone for professional life

- *Current enactment of social norms and rules:* informal norms for smartphone use and expected availability
- *Attitude towards a formal smartphone policy in their organisation:* characteristics, acceptance, barriers

In the next step, we analysed the qualitative data according to content analysis principles (Mayring & Fenzl, 2019). A codebook was developed with anchor examples and the types of (non)enactment of smartphone technology at work were systematically assigned through inductive coding (Chandra & Shang, 2019). We also coded employees' perceptions of socially established informal rules and regulations for smartphone (non)use in their team and organisation. Furthermore, which formal rules of the smartphone (non)use participants viewed as acceptable given the current social actions and pattern of enactment were explored (Table 2). The relevant anchor examples are presented in the results section below.

**Table 2: Coding System for Content Analysis**

| Practices of smart- phone use | *Technological resources* | *Availability rules and expectations* |
|---|---|---|
| | - Private smartphone<br>- Business smartphone<br>   – Clear boundaries<br>   – Use of business smartphone for private conversation | - Definition of availability<br>- Increase of expected availability<br>- Actual availability<br>   – In certain situations<br>   – Limited<br>   – Unlimited<br>- Call-back timing |
| **Measures for limit- ing of smartphone use** | *Enacted*<br><br>Making use of technological measures for off time<br><br>Social norms<br>- Basic communication etiquette<br>- Specific communication rules for meetings<br><br>Formal regulations<br>- Public holidays<br>- Stand-in arrangements<br><br>Expected characteristics:<br>- Voluntary<br>- Granting autonomy<br>- Fitting with leadership style and organisational culture | *Envisaged*<br><br>Formal rules and regulations<br>- On team level<br>- On organisational level<br>- In meetings<br>- In home office<br>- When travelling<br><br>Prerequisites<br>- Technical resources<br>- Training<br>- IT support<br>- Privacy and data protection<br>- Health management<br>- Compensation of over time<br>- Communication of expectations and regulation |

In line with qualitative research principles (Myers, 2019), no fixed set of potential rules and regulations was derived deductively from the theoretical framework. Instead, all categories resulted from the inductive analysis of participants' statements.

## Results

### Enacting Smartphone Technology in Organisations

All participants of the study regularly use their personal smartphone or a business smartphone to communicate with colleagues and clients, gather business-related information and manage their tasks and projects. In line with Orlikowski's concept of *inertia*, some participants use their smartphones solely to maintain established processes and routines. Instead of accessing schedules or project management tools on a stationary computer or laptop, they use the smartphone. Other participants described new and different ways of organising their business travels, managing their projects and documenting their performance.

> „I also lately use my smartphone for organising my tasks. I manage the to-do list with an app on my smartphone. I set deadlines and extend them if something urgent has to be done. I started to organise my to-dos technically as they became too much to remember." (INT 7 – PS)

Positive consequences such as a more independent working style and increased levels of flexibility and mobility enhance individual and team productivity and structures governing the use of digital technology. Thus, smartphone use *leverages* social connectivity and intensifies personal and informal interactions with colleagues:

> „When I participate in an event, I sometimes send a picture to my colleagues. By sharing, they can be part of it somehow (...) and sometimes we send each other funny stuff with a twinkle in the eye. Thus, you share more with each other." (INT6 – PS)

Improvements in work processes also have positive effects on work-life balance. Only a few participants reported significant changes *to* their work practices and rules governing the use of digital technology:

> „I tend to believe that accepting me as a leader depends on my availability. With the smartphone I can do it part-time. That's a big advantage for me." (INT6 – PS)

The findings confirm the different types of usage as suggested by Orlikowski (2017). In addition to improvements regarding social practices and structures governing the use of digital technology at work, relationships with colleagues and clients, and also friends and family can be improved. The use of smartphone technology does not only shape the carrying out of tasks but also the connection with other people.

### The Non-enactment of Smartphone Technology in Organisations

In addition to positive effects, participants reported a number of negative consequences due to work-related smartphone use that was categorised inductively in the process of the content analysis.

**Table 3: Disadvantages of Work-Related Smartphone Use As Perceived by Employees in PS and CC**

| Category | Anchor Examples |
|---|---|
| Inability to detach from work | „Home office is work for me. I am always available and it's difficult to say: ‚Okay, I start working at 8 am, work for 8 hours with one hour break and finish at 5 pm.' If there is a call at 6 p.m., I will surely take it although I actually do not work anymore. Somehow you just do it regardless." (INT11 – CC) |
| Perceived pressure to reply | „There is constant availability. You think you have to be available all the time. Sometimes the project team has to work at the weekend and sends messages […] that puts me under pressure to react because the others can see that I am active on the phone with WhatsApp or whatever. Then you feel you must reply." (INT1 – CC) |
| Perceived loss of control and autonomy | „To be expected to be constantly available is really stressful for me. Having to react anywhere and anytime, horrible." (INT3 – CC) |
| | „If I miss a call from my boss I try to return it immediately. It somehow feels like: 'okay, if I don't know where she is, then I want at least have the feeling that she is available and is not shopping around in town during working hours." (INT3 – CC) |
| Impairment of private / family life | „The simultaneity of everything leads to not being present at all. Being hardly there and hardly noticing what is currently happening. That's difficult for my family." (INT6 – PS) |
| Impairment of psychological detachment and regeneration | „If I take care of urgent matters and have a look at emails in the evening, I start ruminating and get annoyed. This is quite stressful sometimes and ruins my leisure time to a certain extent." (INT9 – PS) |
| Information overload | „I really hate voice messages. I go berserk. I always get bombarded by these voice messages. It's just too much information to have to deal with." (INT3 – CC) |
| Productivity losses and distraction | „When I have to work intensively with the laptop and the smartphone is lying on the table, I receive constant messages from the project leader with an urgent question, this completely disrupts me. Everything I have worked on is gone, and I need quite some time to get back." (INT 10 – CC) |
| Communication problems due to reduced social cues" (Hayes, Carr, & Wohn, 2016) | „My friends know that I neither reply immediately nor send 5000 smileys (...) if I respond with 'yes' or 'Ok' it's okay and doesn't mean that I am cross. I have encountered many misunderstandings because other people usually write longer messages with more emojis." (INT3 – CC) |

Table 3 indicates that participants identified information overload and interruptions by work-related smartphone use as downsides. Missing communication norms or the assumed expectations of superiors or clients may cause a lack of psychological detachment and pressure to respond immediately. This can lead to loss of control and autonomy as participants feel they cannot choose when and where to react

anymore. The interviews revealed some indication that recovery from work and work-family balance are impaired. Finally, we identified the risk of miscommunication caused by reduced social cues (Hayes, Carr, & Wohn, 2016) – particularly in connection with messenger services – as a perceived downside of work-related smartphone use.

Hence, we hardly found any evidence that being sceptical of smartphone technology, whether it be not knowing its technical features, or fearing a loss of status, limits smartphone use as suggested by Orlikowski (2000, 2007, 2009). On the contrary, some participants experienced (intense) smartphone use as a marker of social status:

> „*Some people want to show off how busy and productive they are because they are always ´on´. When I don't respond immediately, I am not always available, I get judged. Is availability a quality indicator or is this craving for recognition?*" (INT7 – CC)

We conclude from our analysis that the need for autonomy and control as well as psychological detachment are important motivators for the non-use of smartphone technology. Interestingly, these factors do not result in a negative attitude, but the motivation to decide specifically when and when not to use the smartphone depending on psychological resources such as attention or cognitive capacity. Specific communication settings (e.g. meetings) and time periods (e.g. lunch break, travel time, holidays) are therefore more prone to inertia, whereas others are open for leverage or change.

## Transition from Informal Rules to a Formal Smartphone Policy

Implementing formal smartphone policies appears to be an appropriate step to govern smartphone use effectively for improving productivity as well as employee well-being. However, participants in both organisations showed clear tendencies of reactance (Brehm, 1966; Quick, Shen, & Dillard, 2013). They perceive formal rules and regulations as a risk to limiting their flexibility and autonomy. In this context, we observed slightly pronounced differences between the two organisations: Employees of the consulting company viewed formal policies as potentially contradicting their organisational values and culture promoting autonomy and self-organisation. Employees of the public sector organisation perceived formal rules and regulations as potential roadblocks to their efforts to satisfy individual or teamwork requirements.

Therefore, more formalised and yet contingent rules for governing work-related smartphone use appear to be required for *new work* arrangements. The content analysis resulted in three different types of potential transition practices:

(a) Formalising a *general communication etiquette* encompassing socially accepted norms of work engagement and availability,

(b) The creation of *rules for specific occasions and activities* such as meetings, mandatory off-time or holidays, and

(c) making use of *technological resources* leveraging the risk of interruptions and detrimental smartphone use (e.g., deactivation of push messages, technical limits and monitoring of screen time).

**Implicit Communication Etiquette**

Our analysis revealed that employees seem to intuitively fall back on general communication etiquette and implicit social norms if formal rules of work-related smartphone use do not exist. These norms encompass

(a) *Which* communication channel should be used for a specific communication goal (e.g., critical feedback to be delivered face-to-face),

(b) *How* to use the technical features of the smartphone in social interactions at work (e.g., no emojis) and

(c) *When* to reply to a message from a colleague, manager or client (e.g., response time or designating "off" hours after 7 p.m.).

Employees in both organisations prefer face-to-face communication with colleagues and clients to technologically mediated communication and regard responsivity as an essential requirement for social interaction and cooperation (c.f. Orlikowski & Yates, 2006). However, they feel that the influx of emails, messages and posts leads to an information load particularly if information serves as a source of power rather than collaboration:

> „*Rule number one is: 'Nobody has died because of an email that has not been written (...) Think twice about to whom you send which email.' There are certain ground rules we could also officially implement. I hate politics that claim ‚If I c/c the boss on the email, it's really bad and a sign that something important is not working well.' That's bad as most organisations want to reduce the number of emails.*" (INT7- PS)

Interestingly, no participant identified diverse communication norms based on group characteristics, for example, cultural background or age group as sources for communication conflicts.

Contingent Communication Rules

Some respondents expressed a need for formal regulations, but only for specific settings. Particularly meetings appear to encourage increased smartphone use. Participants in both organisations prefer not to use their smartphones during meetings and welcome explicitly banning smartphones from meetings. Interestingly, participants did not suggest alternative solutions such as reducing the number or duration of meetings to avoid the behaviour of withdrawing from the meeting by checking a smartphone.

Additionally, employees feel that formal rules are required for the non-use of smartphones during work breaks, leisure time, and on holidays. The need for autonomy, control and work-life boundaries determines this contingent use of smartphones during leisure and regeneration times:

> *„I do not want to integrate the smartphone 100 % in my daily working routine. That's very important to me. That I am not obliged to always reply immediately. You can ask me when I am in the office and logged in at home. But other than that I want to draw a line that only I myself can cross, but not somebody externally because of their expectations."* (INT10 – PS)

Often organisational norms explicitly govern the non-use of smartphones during business travels and holidays, a fact that is appreciated by the employees of the consultancy. In contrast, employees in the public service sector are more often available for work-related issues even during holidays:

> *„My smartphone is always with me, even during holidays. My colleagues know that they can text me in urgent matters, but I check my smartphone only in the evening."* (INT10 – PS)

The higher willingness to be available during holidays seems to be mainly caused by the lack of satisfactory stand-in arrangements during holidays.

### Technological Resources

Many simple technical solutions for boundary management exist: Muting the smartphone, discontinuing push messages or limiting the screen time in the settings may help manage the level of engagement with the smartphone. Furthermore, some technical options (e.g., the Offtime app) are specifically designed to support smartphone abstinence.

In line with Orlikowski, we conclude that the level of knowledge of technological features impacts the (non)enactment of smartphone technology. In contrast to Orlikowski who argues that the lack of technical know-how results in inertia and consequently no transformation in organisations our research suggests that people actively seek to modify their behaviour as well as social practices and strive to acquire the necessary technical know-how. Technical expertise and resources are perceived as key to preventing negative consequences and maintaining boundaries between the working and non-working spheres. However, the technical knowledge to deliberately limit smartphone use differs amongst participants in our study. The more tech-savvy participants make use of features such as changing the availability status in messenger services. Less tech-savvy participants complain about the high level of media competency needed for keeping up to date. Overall, participants in our study are open to technological support helping them to switch off if and when they want to. Yet training, technical and organisational support is expected:

> *„That's the responsibility of the employer. The more functionalities they provide, the better the employees need to be trained."* (INT7 – PS)

### Characteristics of Socially Acceptable Formal Regulations

Repeated social (inter)action may result in changes of institutionalised technological practices due to the amendment of normative or authoritative social structures (Orlikowski, 2000, 2007; Orlikowski & Scott, 2017, 2021). According to our content analysis, three attributes characterise all socially acceptable formal rules:

they must be voluntary, authentic, and allow for autonomy. Given the individual need for psychological detachment as well as expectations of colleagues and clients, participants criticise general, non-contingent policies as too restrictive:

> *„I feel strict rules to be over-regulating. They would take away my freedom. In our organisation, we have lots of freedom and self-organisation. Not only in terms of smartphones but generally. You are in control of your daily life, that's cool."* (INT4 – male – CC)

Employees in both organisations appreciate that they can individually define time periods and settings when not to be available via smartphone. Autonomy is an essential need (Deci & Ryan, 2012) and thus crucial for motivating *new work* arrangements (Anicich et al., 2020). However, employees believe their managers to regard availability and immediacy of responses as performance indicators. The loss of control in home offices might result in a shift away from visual control towards virtual control with the smartphone as an "electronic leash" (Derks, van Mierlo, & Schmitz, 2014:74).

## Conclusions

### Limitations of the Study

Our study is one of the few empirical investigations of the social practices of enacting the non-use of smartphones in different types of organisations. It gives guidance for transforming social norms into an organisational 'smartphone policy' or alternative strategies in the organisation. All empirical studies are subject to some methodological limitations that should be considered when interpreting the results. The sample does not encompass participants from different regions and a wider variety of business areas. Therefore, we cannot ensure that employees in other business domains may differ regarding their social practices and attitudes. However, examining a profit as well as public service sector organisation offers a range of insights from different organizational types. While we acknowledge that the number of participants was limited, we would like to point out that getting civil servants to participate was already a success in itself due to high administrative barriers. We recommend a quantitative follow up with a bigger sample to evaluate our qualitative findings.

We conducted all interviews prior to the Coronavirus spread. Thus, we cannot consider positive and negative experiences of working from home during a longer period. Furthermore, the suspension of work routines due to the lockdowns might create space for experimentation and innovation of materialisations of established work practices (Orlikowski & Scott, 2021). Future studies could explore if formal rules and regulations are more or less accepted in the 'new normal' when autonomy will have been restored after the global Coronavirus pandemic (Anicich et al., 2020).

## Theoretical Implications

Our analysis confirms and complements the different types of enactment Orlikowski (2017) suggests in her socio-materialistic perspective. In the context of inertia, leverage and change of current work practices, we identified (positive and negative) modifications of the social relationships with colleagues, clients, friends, and family members. The enactment of smartphone technology appears not only to shape how to do things at work but also how to connect with each other.

Furthermore, we conclude from our analysis that the need for autonomy and control as well as psychological detachment mainly determine the level of inertia and limited smartphone use. Depending on resources such as time, attention or cognitive capacity, employees tend to regulate their smartphone use in order to balance its demands and benefits. Participants consistently felt a need for formally regulating smartphone use only in specific organisational settings (e.g. meetings) and during time periods (e.g. lunch break, travel time, holidays). Thus, our findings do not indicate a generally negative attitude towards smartphone technology and confirm the assumption of organisational practices to be emergent and dynamic (Orlikowski & Scott, 2017). This perspective on working styles enriches the socio-materialistic view of the use of new technology in organisations. We suggest that deliberately retaining the status quo of an uninterrupted workflow does not necessarily represent "inertia" (Orlikowski, 2000:294), but rather a social practice of a productive and healthy working style. As a result, it is not only the lack of interest in technological change but also the sincere concern for productivity and employee well-being that may motivate smartphone non-use. Thus, temporarily refraining from using a new technology might represent a fourth type of enactment which we propose to call "constructive conservation" and to explore in future studies.

The socio-materialistic perspective assumes that social (inter)action may result in changes of institutionalised technological practices due to the amendment of normative or authoritative social structures (Orlikowski, 2000, 2007; Orlikowski & Scott, 2017). However, empirical research exploring the evolution of informal rules to a formal policy hardly exists. The content analysis of our study suggests three different types of potential evolutionary practices:

(a) Formalising a *general communication etiquette* putting socially accepted norms of communication, work engagement and availability into words

(b) Creating *rules for specific occasions and activities* such as meetings, mandatory off-time or holidays, and

(c) making use of *technological resources* leveraging the risk of interruptions and detrimental smartphone use.

Kaschima et al. (2007) argue that implicit rules that might differ in various organisations and cultures serve as 'common ground' for how to deal with smartphone enactment. Our findings confirm that social actions create new structures of com-

munication, sanctions, and interpretations. As a result, participation, as well as autonomy, need to be considered when an organisation aims to transform the existing social practices into a formal smartphone policy. As structures are formed socially, any formal policy will more successfully integrate smartphones in the workplace if existing social norms and established practices are respected. This process fosters the shift from imposed reinforcement to true transformation on a formal level adjusting the structures governing the use of digital technology.

## Practical Implications

Our paper contributes to the research on the perceived entanglement of the technical and the social and its effects on employees and organisations. The results suggest that social norms for smartphone use are contextual: they depend on the communication setting, communication goals, the workload, and the relationship between sender and receiver. Therefore, formal smartphone rules should consider the social practices employees have established. Furthermore, they should support self-organisation and autonomy as human needs and crucial principles of *new work*. Nonetheless, limiting smartphone use is mandatory from the perspective of psychological risk assessment, particularly for highly vulnerable employees who will not comply with optional suggestions due to their inability to abstain from smartphone use (Duke & Montag, 2017; Gezgin, 2018; Thomée, 2018). Some participants reported negative effects of un-limited smartphone use that could not sufficiently be counterbalanced by current social practices. Thus, corporate health management must set and monitor rules for work-related smartphone use drawing the line between fulfilling work engagement and harmful exhaustion. For this objective, organisations should take into consideration any existing social practices of smartphone use in the organisation when starting the process of drafting a formal policy.

The process should include the voice of different stakeholders (e.g. employees, managers, customers, unions, works' council, and HR). "The creation of a common space for negotiation" (Orlikowski & Yates, 2006:130) appears to be a prerequisite for developing formal norms of work-related smartphone (non-)use that employees will accept and live. To create the necessary commitment, organisations should explore where *new work* settings with more complex tasks will require a more specific approach to new technology to avoid work conflicts. Currently, explicit rules seem to be socially acceptable when implicit etiquette reaches its limits and negative effects can be experienced. Therefore, we recommend using data analytics (e.g., smartphone-based behavioural data) to identify organisational settings requiring explicit guidelines and policies. Technical solutions – such as monitoring the screen time – allow a certain level of control and limitation of work-related smartphone use within the limits of privacy laws. Training could support their implementation in organisations as our analysis indicates that managing the technical settings challenges less tech-savvy smartphone users. Furthermore, we suggest that organisations

purchase smartphones that technically allow for switching off in an easy way. Thus, we advise building upon existing social interactions and designing formal practices in line with various types of enactment for different groups of employees. In so doing, acceptable formal rules and regulations can help to draw the strongly needed yet fragile and dynamic line between private domains and *new work*.

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