HHL LEIPZIG GRADUATE SCHOOL OF MANAGEMENT

Dissertation

Digital Communication in and Beyond Organizations

Essays on Unintended Consequences

Elisa Maria Entschew

Email: elisa.entschew@hhl.de

Digital communication refers to human-to-human, human-to-machine or machine-to-machine communication. This dissertation focuses on human-to-human communication in professional relationships based on hardware innovations like tablets, smartphones, or wearables as well as internet-based services like email, instant messaging or social media. Intended consequences of using social communication technologies are often more freedom of action or faster communication. However, digital communication does also lead to unintended consequences like new social controls, less freedom of action or a lack of time. The aim of the dissertation is to explore explanation attempts why these consequences occur as well as to elucidate how organizations could deal with it. The key message of the dissertation is that using digital communication technologies requires well-trained moral discernment to better understand unintended consequences as well as to better cope with them.

LEIPZIG
GRADUATE SCHOOL
OF MANAGEMENT

Digital Communication in and Beyond Organizations

Essays on Unintended Consequences

Publication-based dissertation submitted in partial fulfillment of the requirements for the degree

Doctor of Economics
(Dr. rer. oec.)

at HHL Leipzig Graduate School of Management
Leipzig, Germany

submitted by

Elisa Maria Entschew

Leipzig, August 2, 2018

First Assessor:

Prof. Dr. Andreas Suchanek

HHL Leipzig Graduate School of Management
Dr. Werner Jackstädt Chair of Economic and Business Ethics

Second Assessor:

Prof. Dr. Manfred Kirchgeorg

HHL Leipzig Graduate School of Management
SVI-Endowed Chair of Marketing, esp. E-Commerce and
Cross-Media Management

Acknowledgment

The time of my doctoral studies was truly enriching and exciting – a phase in life that I would not want to miss. For me it was a great privilege to have the opportunity to study organizational phenomena in times of digitalization, to allow ideas to develop and to get enlightening insights into the world of digital communication. Overall, my doctoral studies were accompanied by many ups and downs bringing pleasure, but sometimes also frustration; all of which contributed to my personal development.

I would like to thank, first of all, my supervisor Prof. Dr. Andreas Suchanek for providing continuous support and countless hours of inspiring consultation and close attention, but also for his mental support. This dissertation would not be the same without having been subjected to such patience, scrutiny and valuable feedback in the process of writing. Secondly, I would like to also express my gratitude to Prof. Dr. Manfred Kirchgeorg who supported me with distinct pieces of advice and critical consultations.

Further, I am grateful for the intellectual exchange with researchers, colleagues and students of HHL Leipzig Graduate School of Management and the Wittenberg Center for Global Ethics. My thanks also go to the reviewers of my papers. In that regard, I firstly refer to my family and my friends who invested their time in order to go through my (interesting, albeit ambitious) works. In particular I would like to thank my husband Alexander Entschew, my sister Juliane Böldicke, Giri Strampello, Christina Kleinau, and Darius Stein. Their critical reflections and inspirations, our discussions and of course, the proof-reading were of high value for the dissertation. Secondly, I refer to the anonymous reviewers for their valuable points of criticism. The firm feedback contributed to the development of a better focus of my papers.

A last and deep gratitude goes to my husband Alexander Entschew, my sister Juliane Böldicke, my parents Kathleen Böldicke and Oliver Böldicke, and of course to my grandma Hannelore Abel for their constant love, unconditional support and presence that allowed me to follow my (academic) passions.

Table of Contents

List of Abbreviations

ADAC	German Automobile Club/ 'Allgemeiner Deutscher Automobil-Club'
AG	Stock company/ Aktiengesellschaft
AE	action episode(s)
BMW	Bavarian Motor Works/ 'Bayerische Motoren Werke'
CEO	Chief Executive Officer
cf.	compare
DIN	German Institute for Standards/ 'Deutsches Institut für Normen'
DOI	Digital Object Identifier
EGOS	European Group for Organizational Studies
e.g.	for example (Latin: exempli gratia)
EN	European Norm
et al.	and others (Latin: et alii/ et aliae)
etc.	and similar other things (Latin: et cetera)
FoMO	fear of missing out
$\frac{info}{d}$	messages received and understood per day
i.e.	that is/ in other words (Latin: id est)
ISO	International Organization for Standards
IT	Information Technology
$\frac{km}{h}$	kilometers per hour
P	proposition(s)
q	quantity
RQ	research question
t	time/ time unit
VHB	German Academic Association for Business Research/ 'Verband der Hochschullehrer für Betriebswirtschaft'
$\frac{x}{d}$	produced goods per day

List of Figures

List of Tables

1. Introduction

1. Intended and Unintended Consequences of Digital Communication

'Like any act of thinking, intelligence in using machines is dull when operational rather than self-critical.'

– Richard Sennett 1998 –

Although the quotation of Richard Sennett is approximately twenty years old, its message may be more relevant than ever. This (thought) provoking quotation can be considered as one of the key messages within the essays of my dissertation. Referring to the essays, 'machines' mainly refer to technological innovations improving digital communication. Digital communication is based on converting analogue information into digital information as well as transmitting and processing digital information via technology.

Digital communication encompasses human-to-human, human-to-machine and machine-to-machine communication. The dissertation focuses on human-to-human communication in professional relationships. This is enabled through internet-based services like email, social media channels or instant messaging and hardware innovations like tablets, smartphones, or wearables[1].

Digital communication often facilitates 'complete human communication' including the four forms of information (data, text, audio, and video) (Tapscott, 2014, pp. 137–138). 'Two professionals in different parts of the globe can exchange (at the speed of light) computerized, or 'digital documents,' that contain data, text, audio, and video' (Tapscott, 2014, p. 138).

Referring back to the quotation of Sennett (1998), the term 'operational' is understood as functional in a way that the communication technology fulfills its objectives or intended

[1] Wearables are smart-digital devices that enable written and voice communications while worn on or in the body (cf. PwC, 2014, p. 3; Tapscott, 2014, pp. 123–124).

consequences. Objectives could be faster and more efficient communication or more freedom of action.

Prima facie this sounds plausible and is usually taken for granted. However, social communication technologies actually do not only offer the aforementioned intended consequences, but can also lead to unintended consequences like new forms of social control, a lack of time or less freedom of action. This somewhat paradoxical relationship is the subject matter of this dissertation.

Permanent connectivity through communication technologies is a vivid example illustrating this paradoxical relationship. The increasing omnipresence of digital devices enables a permanent connectedness to one's work (cf. Boswell & Olson-Buchanan, 2016, p. 593; Fenner & Renn, 2004, p. 184). This comes with intended consequences like faster support from colleagues and superiors, identity and status enhancement if connectedness is used for signaling commitment and loyalty as well as gains in flexibility and mobility, which is particularly relevant for parents (cf. Strobel, 2013, p. 18).

However, evidence can also be found that the newly developing intended consequences of connectivity should be treated with caution. The studies of Hassler and Rau (2016, p. 32); Hassler, Rau, Hupfeld, and Paridon (2016, p. 14) and Strobel (2013, p. 19) show that the mere expectation of being contacted has detrimental, stress-related effects as it affects the ability to detach from one's work role. This is also confirmed by a study about on-call duty which identifies health risks for affected employees (cf. Dettmers & Bamberg, 2014).

The difficulty of mentally detaching from job roles is not conducive for the recovery process of employees (cf. Richter, Rotheiler, & Rudolf, 2015; Schaarschmidt & Fischer, 1997; Sonnentag & Bayer, 2005). A diary study on availability in connection to work-related smartphone use also confirms the difficulty of detaching from work as a driver for work-related exhaustion (cf. Derks, van Mierlo, & Schmitz, 2014). Another study confirms that employees who are connected to work via digital devices in the evening hours have difficulties in undertaking recovery activities (cf. Derks, Brummelhuis, Zecic, & Bakker, 2012). Apparently, permanent connectivity has the potential to deteriorate the recovery ability of the workforce leading to chronic overloading (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, pp. 38–40, 49).[2] Recovery ability, in turn, is positively related to work-effectiveness (cf. Sonnentag, 2003) as well as to physical and psychological well-being of organizational members (cf. Robertson, & Cooper, 2011, p. 76).

In the organizational world, an increasing number of examples can be found showing reactions to these possible threats, e.g.,

- The automobile manufacturer BMW commits its employees to define binding times of unavailability as well as to record 'mobile work' in working time accounts (cf. Boewe & Schulten, 2014, pp. 18, 25; BMAS, 2015, pp. 19–21).
- At the chemical company Evonik availability is a relevant leadership topic and rules and regular meetings have been established to agree upon suitable scopes of availability (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 57; BMAS, pp. 15–17).
- If an employee at Daimler, an automobile manufacturer has activated the auto-reply regarding unavailability (e.g., when taking holiday), all incoming emails are deleted and need to be sent again by the sender (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 57; BMAS, 2015, p. 40).

As implied above – in the scientific discussion – the topic of using social communication technologies for work-related issues mainly focuses on the availability[3] problem (e.g., Boswell & Olson-Buchanan, 2016; Derks et al., 2012; Derks et al., 2014; Fenner & Renn, 2004; Hassler et al., 2016; Hassler & Rau, 2016; Menz, 2017; Pangert, Pauls, & Schüpbach, 2016; Sonnentag, 2003; Sonnentag & Bayer, 2005; Sonnentag & Kruel, 2006; Sullivan, 2014). These researchers show that permanent connectivity often leads to inter-role issues based

[2] It can be assumed that the consequences are different for different personalities as well as generations. For example, Generation Y is used to be online permanently compared to previous generations. Generation Y was born after 1980; they grew up with the internet (cf. Lewe & Pfeil, 2014b, p. 2).

[3] The general problem mainly refers to the blurring separation of work and private life due to permanent connectivity. It is often referred to as 'work-life conflict', 'work-home-interference', 'permanent availability', etc. The underlying problem is that organizational interdependence may prevail permanently.

on an omnipresence of one's work role. Related consequences are often increasing overtime hours or overwork effects.

While some of the studies imply possible reasons for these consequences, most of the studies focus on the consequences of using social communication technologies. My aim is to examine widely unexplored explanation attempts why these consequences occur and to specify how organizations could deal with it.

For this reason, I attempt to examine the changing nature of human communication. I focus on the following relevant changes: the rise of new social control forces (cf. chapter 2), the increase of individual freedom of action (cf. chapter 3) and the acceleration of communication (cf. chapter 4) through digital communication.

A common characteristic of the changes in the nature of human communication is their subtlety what makes the identification of unintended consequences difficult. For instance, answering some emails after the end of the work day rather seems trivial; thereby unintended consequences often stay unnoticed (cf. Derks, Brummelhuis, Zecic, & Bakker, 2012, p. 82).

Yet, referring to the mentioned studies as well as to the practical examples, the need of adapting organizational rules and policies as well as culture seems to become increasingly apparent. Especially the cultural issue is stressed by Sullivan (2014, p. 7) as the benefits of rules often get neutralized by strong workplace cultures. For this reason, a well-trained reflection competence is needed to enable managers[4] and employees to understand relevant changes of digital communication as well as how to reasonably cope with them including conducive workplace culture.

Referring back to the quotation of Sennett (1998), it is advised to not only use technologies in their functional way, but also to be self-critical when using them. This self-criticism is mirrored in the recommendations of the three essays. In particular, it is recommended

[4] Throughout the dissertation the terms 'manager' and 'leader' are used equivalently for simplification purposes.

investing in training of moral discernment in order to better understand the development of the aforementioned unintended consequences as well as to better cope with them.

Moral discernment describes the competence for reflection regarding ‘good’ decision-making, whereby a moral evaluation of actions and expectations is made which considers both the temporal and the social dimension. This generally implies that decision-making considers future conditions and one’s indispensable dependence on others.

2. Limitations and Overview of the Dissertation

It has to be noted that, despite the significance of this competence, moral discernment is a rather elusive construct. It can be understood as ‘profound intuition’ which depends on ‘lifelong learning’ as well as gathering and reflecting upon personal experiences. For this reason, the theoretical explanation of moral discernment and the recommendation regarding specific training of moral discernment contained in this thesis are too narrow a scope for reality.

Grasping the whole meaning of moral discernment via specific training and concepts does not suffice in order to achieve its ambitious claim of doing ‘the right thing’ or avoiding bad. However, based on its relevance for organizations in times of permanent connectivity, I consider it nonetheless important to introduce this competence and to outline the meaning of it as clearly as possible.

Further, the recommendations have been kept relatively general, meaning that the exact design of the suggested investments in organizational members’ ability of moral discernment depends on the type of organization including its size, financial possibilities, organizational culture, etc.

My essays focus on the German-speaking area. Hence, I am referencing comparatively many German sources, especially regarding empirical studies which aim to analyze changes in the work environment. Also, some research reports which I am using for the analysis were funded by interest groups, implying that the results should be treated with caution and be understood as mere indications of trends.

Furthermore, unlike what the reader would expect, I am referencing comparatively little literature on work-life balance. The reason for this is that most of the literature on work-life-balance mainly refers to coping with symptoms of unintended consequences (e.g., how to optimize one's (work) life in order to deal with a lack of time) instead of attempting to understand the root causes and thereby, derive adequate measures (e.g., how to adapt work cultures which are not conducive to maintaining work-life balance or how to consciously manage a possible accelerating communication cycle).

Further, it has to be noted that some theoretical arguments seem to be equal or close to 'reality'; however, the analysis attempts to model tendencies. This means that delineated relationships may not occur exactly as described in reality. What will be described are not natural laws, but attempted explanations of the phenomena which are occurring. The aim is reflecting on these phenomena; whilst bearing in mind that, in reality, there are many factors of contingency involved.

As implied, the dissertation consists of three essays. The first essay elaborates the general challenges of digital communication for moral discernment due to new social control forces. The social control forces are mainly traced back to acceleration and the desire for resonance at work and increasing indirect communication.

The second essay aims at understanding and interpreting freedom based on digital communication in professional relationships. Mainly drawing on Hegel's (1991) theory, the article identifies three relevant forms of freedom in order to understand and interpret widespread understandings of freedom through digital communication.

The third essay is about accelerated communication. In particular, the paradox of a perceived lack of time although more and more time is saved through communication technologies, is the focus of this article. All three essays relate to the example of permanent availability in order to discuss specific unintended consequences. An overview of the three articles – including authorship and publication status – is provided in table 1:

	Chapter 2 Digital Communication: A New Challenge for Moral Discernment	**Chapter 3** Digital Communication in and beyond Organizations: Unintended Consequences of New Freedom	**Chapter 4** Digital Communication in Organizations: Acceleration and a Lack of Time
Joint work with	Prof. Dr. Andreas Suchanek	–	–
Contribution	Main author (main responsibility for derivation of research question, research design, literature review, model set up, interpretation of findings and writing)	Author's independent research	Author's independent research
Current Status	Published in: *Journal for Business, Economics and Ethics* (Zeitschrift für Wirtschafts- und Unternehmensethik), Volume 18 (2017), Issue 3 (VHB Ranking: C).	Accepted at: *Journal of Information, Communication and Ethics in Society* (Scimago Journal Rank (measure of scientific influence based on 'average prestige per article'): 0.242).	Under review at: *Ethics and Information Technology* (Scimago Journal Rank: 0.512).

Table 1: Summary of Publications of Different Chapters

In the following, a summary of the articles regarding the purpose, research approach, contribution and findings, propositions and the originality are presented.

3. Article 1: Digital Communication: A New Challenge for Moral Discernment

Purpose: The purpose of this paper is to explore the general question – *how does digital communication affect moral discernment?* The paper looks at the changing conditions of organizational members' (digital) communication. In particular, newly developing forms of social control, occurring due to acceleration, resonance and indirect communication are examined. The subtlety of these developments and the difficulty of understanding them pose new challenges for moral discernment.

Research approach: This largely conceptual paper looks to develop an understanding of the changing conditions of digital communication and potential risks which these changes create. Empirical studies are referenced in order to substantiate the arguments. The concept of the practical syllogism is applied in order to conceptualize the basic problem of the increasing difficulty of understanding one's conditions of communication challenging moral discernment.

Contribution and findings: The paper points out that the main problem of profound moral discernment in times of digital communication lies in the increasing occurrence of digital social control. The challenge lies in the subtle nature of social controls: Organizational members feel as if they have great freedom, although they are complying much more with organizational standards (cf. O'Reilly, 2008, p. 88). This problem can be intensified by a weak digital literacy of organizational members in combination with a high degree of organizational interdependency. As a result, they face problems of understanding their conditions of communication, which undermines their ability for moral discernment. If organizational members do not understand these dynamics and if digital literacy and moral discernment are not trained, a potential outcome is digital alienation. Often, alienation is a work-related problem based on conditions and tasks which one cannot influence (cf. Marx & Engels, 2010, pp. 47–48). This absence of influence is often accompanied by the problem that the conditions of action, in which one is embedded, are not understood (cf. Paul & Suchanek, 1994, p. 3). Two aspects of alienation are emphasized in the essay:

1. Traditional conditions (of communication) lose overall validity.

2. Conditions (of communication) develop their own autonomy.

Both aspects undermine a sufficient understanding of one's conditions. The problem is that even though employees may not understand these changing conditions, they are supposed to comply with them. Digital alienation refers to organizational members' relation to newly developing conditions of digital communication. Even though organizational members are embedded in these conditions of communication, they are losing the connection to it. Alienation can be understood as a state of unrelated embeddedness (cf. Jaeggi, 2016, pp. 20–25). Thereby, it often remains unnoticed that colleagues are digitally connecting more and more, but simultaneously becoming alienated from others. For instance, digital communication does not involve face-to-face contact (at most virtually). As a result, organizational members often communicate more honestly (cf. Zuboff, 1988, p. 370). Yet, organizational members may also become alienated from the communicated content. This is due to the absence of face-to-face interaction loosening the connection to the content (including the communication partner). Even though digital communication often intends to connect humans, it can also encourage becoming digitally alienated by losing social connections. Such a loose connection leads to (digital) alienation, especially when organizational members cannot familiarize and understand newly developing conditions of communication (cf. Rosa, 2014, p. 484). Social connections, however, encourage stability and trust (cf. Freud, 2013; Rockmann & Northcraft, 2008), which is crucial for effective professional relationships (cf. Suchanek, 2015).

Propositions:

P1. Digital communication gives rise to new (digital) social control forces.

P2. The subtlety of digital social control forces makes it harder for organizational members to understand the conditions of communication.

P3. When a solid understanding of conditions of communication is lacking, reasonable moral discernment is nearly impossible.

P4. If moral discernment (including digital literacy) is not trained within organizations, a potential outcome is digital alienation.

Originality: Moral discernment has always been an important competence which needs to be trained. Newly developing conditions of digital communication make this competence all the more significant, as well as more challenging. The article investigates the widely unexplored significance of digital literacy and moral discernment for organizational members in times of digital communication.

4. Article 2: Digital Communication in and beyond Organizations: Unintended Consequences of New Freedom

Purpose: The purpose of this paper is to address the following question: *In times of permanent connectivity, what are important forms of freedom in order to prevent unintended consequences?* By using the Hegelian perspective on freedom, the article categorizes three forms of freedom in order to transfer them to a common, contemporary understanding of freedom relating it to freedom through digital communication. The aim is to show that freedom is not only about independence and realizing choices, but also about embedding and committing oneself (cf. Hegel, 1991).

Research approach: This mainly conceptual article derives implications based on Hegelian theory. This is supplemented by an interdisciplinary approach, whereby categories of other philosophers, ethicists, economists and sociologists are applied. The analysis of the contemporary perspective on freedom is enriched by referencing empirical studies. The concept of temporal embeddedness is used in order to systematically develop a possible scenario regarding permanent availability as a potential unintended consequence.

Contribution and findings: Digital communication offers new freedom like working with fewer restrictions from time and space (cf. Khan & Agha, 2013, p. 16). It is often possible to work 24 hours per day from anywhere (independence) as well as to decide on the final location and timing of one's work (realizing choices). When solely focusing on these – seemingly advantageous – forms of freedom in times of permanent connectivity, unintended consequences like the expectation of permanent availability develop. Hence, the key message of the essay is that considering one's temporal and social dependencies (embeddedness) is an indispensable part of actual freedom in order to avoid unintended consequences. For this reason, organizations need to invest in moral discernment and availability regulations in order to understand unintended consequences as well as to cope with them.

Propositions:

P1. When focusing on freedom as independence and realizing choices, unintended consequences like expectations of permanent availability may develop.

P2. Training of moral discernment as well as implementing regulations on availability help to cope with availability expectations responsibly in times of permanent connectivity.

Originality: Applying Hegelian theory on freedom based on digital communication to better understand social dynamics of digital communication is a largely unexplored avenue in the existing scientific literature. The decision to undertake this venture resulted from the identified necessity of understanding freedom better. It is often not clear what is meant by freedom through digital communication. Although, freedom is a complex construct, it is often reduced to independence and realizing choices (cf. Hampton, 2016; Hewlett, Sherbin, & Sumberg, 2009, p. 73; Rosa, 2014, pp. 126–127; Schmidt & Cohen, 2014, pp. 3, 15–16). When solely focusing on independence and realizing choices, unintended consequences like permanent availability often go unnoticed. It is exactly because of these issues that this article endeavors to examine the (deep) meaning of the powerful, yet complex, term of freedom.

5. Article 3: Digital Communication in Organizations: Acceleration and a Lack of Time

Purpose: The purpose of this paper is to explore the question – *can digital communication systematically lead to organizational members experiencing a lack of time?* This question is mainly traced back to acceleration processes due to the fact that organizations are increasingly required to operate faster, including their communication processes (cf. Child & McGrath, 2001, pp. 1136–1139; Eisenhardt, 1989). Based on an examination of the acceleration theory of Hartmut Rosa (2003, 2014), an accelerating communication cycle is derived. This communication cycle aims at systematically analyzing the potential development of a chronic lack of time in organizations.

Research approach: This mainly conceptual paper looks to develop a theoretical understanding of acceleration processes in organizations, based on the acceleration theory of Rosa (2003, 2014). The identification of a possible chronic lack of time is based on the theoretical acceleration cycle as well as the concept of the rebound effect (cf. Berkhout, Muskens, & W. Velthuijsen, 2000; Binswanger, 2001). This is transferred to the particular process of accelerating communication. Also, empirical studies are referred to in order to discuss possible consequences, as well as adequate coping mechanisms, for the identified problem of a chronic lack of time.

Contribution and findings: Based on Rosa's theory (2003, 2014), the paper provides a profound analysis of accelerated communication processes, as well as the identification of possible reasons for a chronic lack of time. For instance, if organizations' aim is unlimited growth, a lack of time is automatically created. This is specified and illustrated by the example of digital communication. Further, distinctive consequences like alienation, learned helplessness and scattering are identified, leading to sinking motivation and energy levels of organizational members (they 'burn out'), at least in the long-run. Practical coping measures – for countering the identified risks – are suggested as reasonable investments in the well-being and productivity of organizational members. The key message is that technologies need to be used sustainably and in a reflective manner; conscious decisions regarding where to draw the line need to be made.

Propositions:

P1. Digital communication leads to the experience of a chronic lack of time if an accelerating communication cycle prevails.

P2. If a chronic lack of time prevails, organizations and their members may 'burn out'[5].

P3. By investing in moral discernment, organizational members may better understand the risks of a chronic lack of time and the suitability of investing in further measures.

Originality: Paradoxically, more and more is invested in order to save time. As an example for digital communication, time savings are facilitated through the optimization of one-to-one (or one-to-many) communication to many-to-many communication (cf. Chui et al., 2012, pp. 10–11; Leonardi, Huysman, & Steinfield, 2013). However, the feeling of not having enough time often prevails, or even increases, for organizational members. The general exploration of the paradox can also be found in the work of Rosa (2014). This article aims at specifying his theory with regard to communication processes.

[5] 'Burning out' does not relate to a medical term, rather the term is understood as the result of a decreasing motivation and energy level of organizational members. A more detailed explanation of the term can be found in chapter 4.

6. References

Berkhout, P. H.G., Muskens, J. C., & Velthuijsen, J. W. (2000). Defining the Rebound Effect. *Energy Policy*, *28*(6-7), 425–432.

Binswanger, M. (2001). Technological Progress and Sustainable Development: What about the Rebound Effect? *Ecological Economics*, *36*(1), 119–132.

BMAS (2015). *Zeit- und ortsflexibles Arbeiten in Betrieben: Sammlung betrieblicher Gestaltungsbeispiele*. Berlin: Bundesministerium für Arbeit und Soziales.

Boewe, J., & Schulten, J. (2014). Dienstplanung per Smartphone: Mobile Anwendungen zur Personaleinsatzplanung fordern Betriebsräte heraus. *Magazin Mitbestimmung, Hans-Böckler-Stiftung*. (12), 16–19.

Boswell, W. R., & Olson-Buchanan, J. B. (2016). The Use of Communication Technologies After Hours: The Role of Work Attitudes and Work-Life Conflict. *Journal of Management*, *33*(4), 592–610.

Child, J., & McGrath, R. G. (2001). Organizations Unfettered: Organizational Form in an Information-Intensive Economy. *Academy of Management Journal*, *44*(6), 1135–1148.

Chui, M., Manyika, J., Bughin, J., Dobbs, R., Roxburgh, C., Sarrazin, H., Sands, G., & Westergren, M. (2012). *The Social Economy: Unlocking Value and Productivity through Social Technologies*: The McKinsey Global Institute.

Derks, D., Brummelhuis, L. L. ten, Zecic, D., & Bakker, A. B. (2012). Switching on and off …: Does Smartphone Use Obstruct the Possibility to Engage in Recovery Activities? *European Journal of Work and Organizational Psychology*, *23*(1), 80–90.

Derks, D., van Mierlo, H., & Schmitz, E. B. (2014). A Diary Study on Work-Related Smartphone Use, Psychological Detachment and Exhaustion: Examining the Role of the Perceived Segmentation Norm. *Journal of Occupational Health Psychology*, *19*(1), 74–84.

Dettmers, J., & Bamberg, E. (2014). Rufbereitschaft als erweiterte Verfügbarkeit für die Erwerbsarbeit. In S. Fietze, M. Keller, N. Friedrich, & J. Dettmers (Eds.), *Rufbereitschaft:: Wenn die Arbeit in der Freizeit ruft* (1st edition, pp. 151–174). München: Rainer Hampp Verlag.

Eisenhardt, K. M. (1989). Making Fast Strategic Decisions in High-Velocity Environments. *Academy of Management Journal*, *32*(3), 543–576.

Fenner, G. H., & Renn, R. W. (2004). Technology-Assisted Supplemental Work: Construct Definition and a Research Framework. *Human Resource Management*, *43*(2–3), 179–200.

Freud, S. (2013). *Das Unbehagen in der Kultur in: Das Unbehagen in der Kultur und andere kulturtheoretische Schriften* (3rd edition). Frankfurt am Main: Fischer-Taschenbuch-Verlag.

Hampton, K. N. (2016). Persistent and Pervasive Community: New Communication Technologies and the Future of Community. *American Behavioral Scientist*, *60*(1), 101–124.

Hassler, M., & Rau, R. (2016). Ständige Erreichbarkeit: Flexibilisierungsanforderung oder Flexibilisierungsmöglichkeit? *Wirtschaftspsychologie*, *18*(2), 25–34.

Hassler, M., Rau, R., Hupfeld, J., & Paridon, H. (2016). *Auswirkungen von ständiger Erreichbarkeit und Präventionsmöglichkeiten: Teil 2: Eine wissenschaftliche Untersuchung zu potentiellen Folgen für Erholung und Gesundheit und Gestaltungsvorschläge für Unternehmen*. Dresden: Initiative Gesundheit und Arbeit.

Hegel, G. W. F. (1991). *Elements of the Philosophy of Right*. Cambridge: Cambridge University Press.

Hewlett, S., Sherbin, L., & Sumberg, K. (2009). How Gen Y & Boomers will reshape your agenda. *Harvard Business Review*, *87*(7/8), 71–76.

Jaeggi, R. (2016). *Entfremdung: Zur Aktualität eines sozialphilosophischen Problems*. Frankfurt am Main: Suhrkamp.

Khan, S. A., & Agha, K. (2013). Dynamics of the Work Life Balance at the Firm Level: Issues and Challenges. *Journal of Management Policy and Practice*, *14*(4), 103–114.

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

Lewe, P., & Pfeil, S. (2014). *Das Arbeitgeberwahlverhalten der Generation Y: Eine werteorientierte Analyse unter besonderer Berücksichtigung des Sinns der Arbeit: Studienbericht.* Köln: Enactus e.V., Leipzig: HHL Leipzig Graduate School of Management.

Marx, K., & Engels, F. (2010). *Marx & Engels: Collected Works* (Volume 5). London: Lawrence & Wishart Electric Book.

Menz, W. (2017). *Erweiterte arbeitsbezogene Erreichbarkeit Ausprägungen, Belastungen, Handlungsstrategien: Ergebnisse einer qualitativen Beschäftigtenbefragung des Projekts MASTER – Management ständiger Erreichbarkeit.* München: ISF München. Retrieved from http://www.isf-muenchen.de/pdf/Erweiterte_arbeitsbezogene_Erreichbarkeit.pdf

O'Reilly, C. (2008). Corporations, Culture, and Commitment: Motivation and Social Control in Organizations. *California Management Review*, *50*(2), 85–101.

Pangert, B., Pauls, N., & Schüpbach, H. (2016). *Die Auswirkungen arbeitsbezogener erweiterter Erreichbarkeit auf Life-Domain-Balance und Gesundheit: Forschung Projekt F 2353* (2nd revised and enlarged edition). Dortmund: Bundesanstalt für Arbeitsschutz und Arbeitsmedizin.

Paul, F., & Suchanek, A. (1994). Entfremdung und Institutionen: Diskussionsbeiträge der wirtschaftswissenschaftlichen Fakultät Ingolstadt der Katholischen Universität Eichstätt. (44).

PwC. (2014). *Health Wearables: Early Days.* New York: PricewaterhouseCoopers. Retrieved from https://www.pwc.com/us/en/health-industries/top-health-industry-issues/assets/pwc-hri-wearable-devices.pdf

Richter, P., Rotheiler, E., & Rudolf, M. (2015). *FABA – Fragebogen zur Analyse belastungsrelevanter Anforderungsbewältigung* (2nd revised edition). Großhöflein: P&T Prieler Tometich Verlag.

Robertson,I., & Cooper, C. (2011) Well-Being: Productivity and Happiness at Work. Basingstoke: Palgrave Macmillan.

Rockmann, K. W., & Northcraft, G. B. (2008). To Be or Not to Be Trusted: The Influence of Media Richness on Defection and Deception. *Organizational Behavior and Human Decision Processes*, *107*(2), 106–122.

Rosa, H. (2003). Social Acceleration: Ethical and Political Consequences of a Desynchronized High–Speed Society. *Constellations*, *10*(1), 3–33.

Rosa, H. (2014). *Beschleunigung: Die Veränderung der Zeitstrukturen in der Moderne* (10th edition). Frankfurt am Main: Suhrkamp.

Schaarschmidt, U., & Fischer, A. (1997). AVEM – ein diagnostisches Instrument zur Differenzierung von Typen gesundheitsrelevanten Verhaltens und Erlebens gegenüber der Arbeit. *Zeitschrift für Differentielle und Diagnostische Psychologie, 18*(3), 151–163.

Schmidt, E., & Cohen, J. (2014). *The New Digital Age: Reshaping the Future of People, Nations and Business*. London: Murray.

Sennett, R. (1998). *The Corrosion of Character: The Personal Consequences of Work in the New Capitalism*. New York: W. W. Norton & Company Ltd.

Sonnentag, S. (2003). Recovery, Work Engagement, and Proactive Behavior: A New Look at the Interface between Nonwork and Work. *Journal of Applied Psychology*, *88*(3), 518–528.

Sonnentag, S., & Bayer, U.-V. (2005). Switching off Mentally: Predictors and Consequences of Psychological Detachment from Work during off-Job Time. *Journal of Occupational Health Psychology*, *10*(4), 393–414.

Sonnentag, S., & Kruel, U. (2006). Psychological Detachment from Work during off-Job Time: The Role of Job Stressors, Job Involvement, and Recovery-Related Self-Efficacy. *European Journal of Work and Organizational Psychology*, *15*(2), 197–217.

Strobel, H. (2013). *Auswirkungen von ständiger Erreichbarkeit und Präventionsmöglichkeiten: Teil 1: Überblick über den Stand der Wissenschaft und Empfehlungen für einen guten Umgang in der Praxis*. Dresden: Initiative Gesundheit und Arbeit.

Suchanek, A. (2015). *Unternehmensethik: In Vertrauen investieren*. Tübingen: Mohr Siebeck.

Sullivan, T. A. (2014). Greedy Institutions, Overwork, and Work-Life Balance. *Sociological Inquiry*, *84*(1), 1–15.

Tapscott, D. (2014). *The Digital Economy: Rethinking Promise and Peril in the Age of Networked Intelligence* (20th anniversary edition). New York: McGraw-Hill.

Zuboff, S. (1988). *In the Age of the Smart Machine: The Future of Work and Power*. New York: Basic Books.

2. Digital Communication: A New Challenge for Moral Discernment

Elisa Maria Entschew, Research Associate, HHL Leipzig Graduate School of Management, Jahnallee 59, 04109 Leipzig, Germany

Andreas Suchanek, Chair holder, HHL Leipzig Graduate School of Management, Jahnallee 59, 04109 Leipzig, Germany

This is an updated version of the published version from the Journal for Business, Economics and Ethics, Volume 18 (2017), Issue 3.

DOI: 10.5771/1439-880X-2017-3-347

Abstract

Digital communication is based on the conversion of analogue information into digital information as well as the transmission and processing of digital information. This fundamentally changes the nature of human communication. The promised effects of the digitalization of communication are to save time and create more freedom of action. However, digital communication also leads to new dependencies and social control. This generates a new challenge for moral discernment.

Keywords: Digital Communication, Social Control, Moral Discernment, Alienation

Table of Contents

1. Introduction

1.1 What is the Problem?

Social change has always been tied to technological change (cf. Hampton, 2016, p. 104). Digitalization is an overarching technological change, which is discussed and analyzed within different disciplines. This article focuses on digital communication. Digital communication encompasses human-to-human, human-to-machine as well as machine-to-machine communication. This analysis concerns human-to-human communication in professional relationships. Human-to-human communication through digital means encompasses communication via internet-based services like email, social media channels or instant messaging enabled through hardware innovations like tablets, smartphones, or wearables[6].

The conditions of human communication are changing. One of the changes is the rise of new forms of social control[7] (cf. section 3.2) resulting from acceleration of communication (cf. section 2.1), a changing desire for resonance[8] (cf. section 2.1) and greater prevalence of indirect communication (cf. section 2.2). A challenging feature of social control is its subtlety: Organizational members do not feel heteronomous control. They even feel like having great freedom, although they are complying much more with organizational standards (cf. O'Reilly, 2008, p. 88). The term 'organizational members' includes managers as well as employees at non-managerial level; the latter will be referred to as 'employees' throughout the article.

Due to the changing conditions of digital communication between humans, moral discernment[9] is faced with new challenges. The theoretical contribution of this article is to examine newly developing social control forces and their impact on moral discernment.

---

[6] Wearables are smart-digital devices that enable written and voice communications while worn on or in the body (cf. PwC, 2014, p. 3; Tapscott, 2014, pp. 123–124).

[7] Social control, which is often based on social norms, is understood as implicit agreements among organizational members about what constitutes adequate behavior.

[8] Resonance describes the desire of humans to be recognized by and connected to others (cf. Rosa, 2016, pp. 24–25, 198–199, 281–298).

[9] Moral discernment describes a reflection competence enabling 'good' decision-making (doing 'the right thing' or avoiding bad) based on a moral evaluation of actions and expectations (cf. Suchanek, 2015). I use the term 'moral' comprehensively and abstain from a differentiation to the term 'ethical' for simplification purposes. Hence, on the one hand

Digital communication often promises time savings or more freedom (cf. Hampton, 2016; Schmidt & Cohen, 2014, pp. 3, 7, 15–16). However, there are also unintended consequences in terms of social control, such as the prevalence of permanent availability or secret surveillance.[10] The parallel development of freedom and control is inevitable and nothing novel, especially in professional relationships. Nevertheless, the subtlety of social control through digital communication (digital social control)[11] makes it increasingly difficult to understand one's conditions of communication. The ability to understand one's dependencies is requisite for moral discernment. We therefore claim that digital social control poses a new challenge to moral discernment.

Further, it will become clear that this challenge for moral discernment is intensified if organizational members have a weak digital literacy. In general, digital literacy is a competence enabling humans to live and work in digital environments (cf. Eshet, 2004; Lankshear & Knobel, 2008). Here, digital literacy focuses on a general understanding of possible processes that are (latently) taking place when communicating digitally.

Crawford (2016, pp. 142–143) suggests that the difficulty of understanding one's conditions of action and their causal relationships systematically increases in our complex (organizational) worlds with diverse interdependencies. Nonetheless, the difficulty of adequately understanding one's own environment is not a new challenge, per se. In earlier centuries, it was difficult to understand one's environment due to a lack of information[12]. Nowadays, it is becoming more and more difficult to understand one's environment due to increasing subtlety of information (cf. Hamilton, Karahalios, Sandvig, & Eslami, 2014; Mittelstadt, Allo, Taddeo, Wachter, & Floridi, 2016) as well as an overload of information

'moral' refers to decisions that are related to values. On the other hand, the term is used to describe decisions that are normatively adequate (cf. Gunia, Wang, Huang, Wang, & Murnighan, 2012, p. 14).

[10] We do not intend to undermine new opportunities of digitalization. Nonetheless, they do aim to identify possible risks of digitalization that have the potential to undermine freedom. This is in accordance with the German Federal Minister of Labor at the time of writing, Andrea Nahles (2016, p. 107): She encourages analyzing foreseeable risks in the context of digital (work) environments in order to make use of the possible opportunities, while not undermining societal achievements such as social order or freedom.

[11] We are mainly referring to digital social control, encompassing social controls enabled through digital communication, even if the term 'digital' is not always explicitly used.

[12] Information is understood as messages received and understood (redundancies are not included).

(cf. Rosa, 2014, pp. 116–122; Zuboff, 1988, p. 348). A possible means of dealing with an increased amount of information is to be available permanently[13] (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 36; Menz, 2017, pp. 20–21).

Some companies have already reacted to such issues of digital communication. However, most of these regulations apply to the topic of availability and do not apply to management positions:

- BMW: Since 2014, a company agreement commits to define binding times of unavailability; it also regulates that organizational members are able to unbureaucratically record 'mobile work' in their working time accounts. BMW's works council received the German award for workers' councils for this innovative company agreement on 'mobile work' (cf. Boewe & Schulten, 2014, pp. 18, 25; BMAS, 2015, pp. 19–21).
- Evonik: Since 2013, availability is a central leadership topic and rules have been established for all 21,000 organizational members in Germany; appraisal meetings are used in order to individually agree on suitable scopes of availability (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 57; BMAS, 2015, pp. 15–17).
- Daimler: Since 2013, if an employee has activated the auto-reply regarding unavailability (e.g., when taking holiday), all incoming emails are deleted and need to be sent again by the sender (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 57; BMAS, 2015, p. 40).
- Volkswagen: Since 2011, a company agreement regulates that 30 minutes after regular working hours, emails will not be forwarded until 30 minutes prior to the official start of the next day; this only counts for 3,500 employees with collective agreements

[13] Permanent availability is understood as unregulated availability for professional interests, including outside of regular working hours (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 9). In addition, there is no clear specification on the reaction time if an employee is contacted (cf. Hassler & Rau, 2016, p. 26). Strobel (2013, p. 18) identifies the following advantages of permanent availability: gains in flexibility and mobility, which is particularly relevant for parents; faster support from organizational members or identity and status enhancement.

and organizational mobile phones and it does not count for managers (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 57).

- Continental AG: Employees can consult a guideline for advice about possible ways of interrupting permanent availability, such as setting up filters for calls and emails as well as transparently communicating these interruptions (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 57).
- Robert Bosch: Similar to BMW, organizational members have the right to record 'mobile work' in their working time accounts. They also determine the periods of time in which they are available. Colleagues can check online if one is available or not. Further, weekly working time is not extended and working on Sundays or holidays is forbidden. Management is responsible for preventing 'excessive demands' (cf. BMAS, 2015, pp. 47–48).
- Deutsche Telekom: Since 2010, employees can rely on a policy which commits managers to abstain from sending emails after working hours, employees are not obliged to react to email requests after regular working hours (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 57). Additionally, managers are taught how to shape a conducive work environment in 'healthy leadership' training (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 57; BMAS, 2015, pp. 35–37).

These examples suggest that there is a need for unavailability. With reference to the Telekom and the Bosch example, there is also some indication on the development of specific training for managers as well as particular responsibilities of managers.

Other issues of digital communication refer to new possibilities of surveillance. In this paper, social control through internal surveillance in organizations is of special interest. One such example is the ADAC (German automobile club) case, where organizational members systematically checked email content of other organizational members (cf. Witte & Wendt, 2013).

Another example is the usage of software called 'Keylogger', which enables every keyboard input of organizational members to be recorded. Based on upcoming cases, the Federal Labor Court passed a law that forbids the use of such software (cf. German Federal Labour Court, 2017). However, organizational members might face problems in understanding and trusting these newly developing conditions.

We derive two fields which require specific actions to be taken:

1. Integration of rules of unavailability (new regulations for organizational members[14])
2. Institutionalization of professional training of digital literacy and moral discernment in order to promote responsible business behavior in times of digital communication (new two-level-training for organizational members[15])

In regard to the first issue, practical and academic work is prevalent (e.g., Boswell & Olson-Buchanan, 2016; Derks et al., 2012; Derks et al., 2014; Fenner & Renn, 2004; Hassler et al., 2016; Hassler & Rau, 2016; Menz, 2017; Pangert, Pauls, & Schlett, 2017). The second issue has not been discussed very prominently so far.[16] As such, we focus on this second issue; mainly focusing on the subtlety of social control via human-to-human communication.

Since both issues (1. and 2.) are closely related, the availability problem is part of the following analysis. Though not part of the theoretical contribution, it sheds some light on unintended consequences of social control.

Based on these considerations, the theoretical contribution of this article is firstly to reconstruct newly developing social control forces and their impact on moral discernment. From

[14] Since managers have overarching responsibilities, unavailability rules have to be adapted with regard to these responsibilities. However, in order to not lose track of the bigger picture, which is relevant for responsible decision-making, they also need breathing room outside of their professional roles (cf. section 4.2).

[15] Managers as well as employees at non-managerial level should be equipped with an adequate moral discernment in order to encourage responsible decision-making. However, due to the overarching scope of responsibilities, the decision-making power as well as the role model function of managers, it is especially relevant for management positions (cf. section 4.1). One of the managerial responsibilities could be to individually train their teams with regard to managing digital communication.

[16] An approach, mainly focusing on the subtlety and moral responsibility of programmers and their algorithms can be found in the work of Mittelstadt, Allo, Taddeo, Wachter, and Floridi (2016). It should be noted that algorithms play an integral role regarding digital communication. This analysis, however, does not focus on the effects of algorithms.

this standpoint, we develop a new theoretical category of digital alienation. The following research question guides the reader throughout the line of argument:

RQ: How does digital communication affect moral discernment?

Our main proposition is that digital communication challenges moral discernment in a new way. In particular, the following propositions (P) are proposed throughout the analysis:

P1. Digital communication gives rise to new (digital) social control forces.

P2. The subtlety of digital social control forces makes it harder for organizational members to understand the conditions of communication.

P3. When a solid understanding of conditions of communication is lacking, reasonable moral discernment is nearly impossible.

P4. If moral discernment (including digital literacy) is not trained within organizations, a potential outcome is digital alienation.

The relationship of the propositions is illustrated in the figure below:

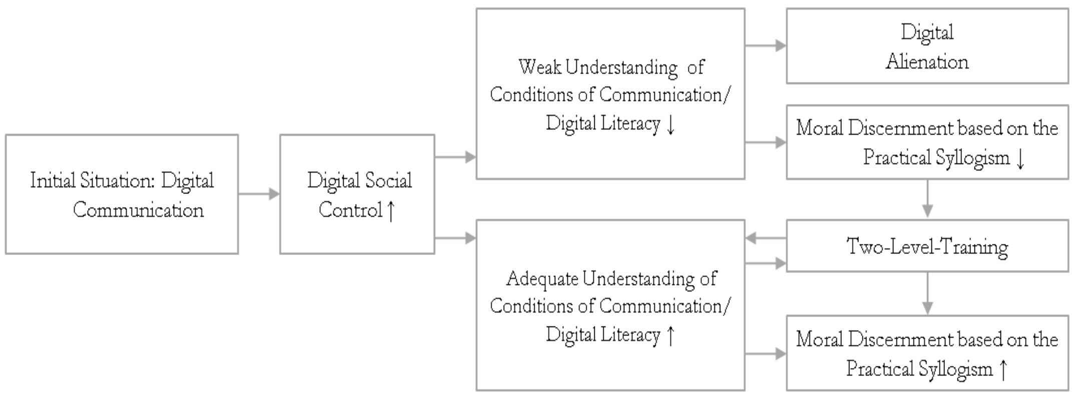

Figure 1: The Challenge for Moral Discernment Caused by Digital Communication (Source: Own illustration)

1.2 Procedure and Basic Assumptions

The analysis starts by introducing digital communication and social control in order to examine the changing conditions of human communication in professional relationships (P1 and P2). It should be noted that digital communication leads to other changes as well, but only those changes that are relevant to social controls are presented in the chapter. The changes which are discussed relate to social controls resulting from acceleration, a changing desire for resonance and greater prevalence of indirect communication.

The next section is dedicated to developing a theoretical understanding of the concept of moral discernment. The competence in moral discernment is conceptualized via the heuristic of the practical syllogism (cf. Suchanek, 2015, pp. 42–46).

On this basis, the changing difficulty of understanding one's conditions of communication through social control is related to the practical syllogism (P3). This conceptualization of moral discernment reveals new difficulties in deriving the 'right decisions'. Ethical considerations such as 'What is the right thing to do?' thereby become more complicated.

Subsequently, the new category of digital alienation is derived (P4). Finally, the outlook discusses recommendations for corresponding investments which organizations can make in the well-being and productivity of their staff. These are investments that organizations can make in their members' power of moral discernment.

The analysis is based on the assumptions of interaction ethics (cf. Suchanek, 2015). One relevant assumption is that ethics does not only refer to one person, but also to the rest of society, involving other humans and institutions[17] (social embeddedness). This assumption implies the embeddedness of a person within the social dimension. Another assumption relates to temporal embeddedness implying that individual or collective actions influence the conditions of action, which apply for future actions.

The article mainly argues on the meso- (organization) and micro-level (organizational members), although social control and norms are also elements of the macro-level. Hence, we cannot deny influences from the macro-level, such as societal norms or legal entitlements.

Furthermore, digital communication has blurred the line between private and professional life. Whilst the focus of this article lies squarely on professional relationships, it is not always

[17] Institutions comprise informal constraints (conventions, social norms, sanctioning mechanisms, traditions, codes of conduct, etc.) and formal rules (laws, constitutions, property rights, etc.) (cf. North, 1991, p. 97, 2005, pp. 3–9).

feasible to achieve a clean separation from private relationships due to the aforementioned 'blurring of the line'.

2. Digital Communication and Social Control: What is Changing?

2.1 Acceleration and Resonance: A Path to Availability

Digital communication refers to exchanging information enabled through the omnipresence of digital devices. Common promises are time savings and more freedom (cf. Hampton, 2016; Schmidt & Cohen, 2014, pp. 3, 7, 15–16). Via digital communication, organizational members have more freedom to communicate with each other everywhere, all the time and in various ways.

One basic changing condition in human communication is acceleration: more content is communicated in the same time period, or the same volume of content is communicated in less time. It means a quantitative growth per time unit (cf. Rosa, 2016, pp. 13, 673). As a result, the amount of communicated information increases.

In Germany, the amount of emails has increased from 32.3 billion in 2000 to 771 billion in 2017 (cf. The Radicati Group, 2018a). Further, the number of received organizational emails per day has grown by approximately 91 percent from 2011 to 2018 in Germany (German Association for Information Technology, Telecommunications and New Media, 2018). It is expected that from 2018 to 2022 the amount of sent and received emails per day will further increase worldwide (cf. The Radicati Group, 2018b). These developments make accelerated communication apparent: The amount of communicated information increases per time unit ($\frac{exchanged\ information: q}{time\ unit: t} \uparrow$).

For a better understanding of accelerated communication, a hypothetical example is helpful (cf. Rosa, 2014, pp. 119–120): Acceleration means that writing and sending an email takes approximately only half of the time that a conventional letter would do. However, if we suppose that the amount of processed emails is roughly four times higher than the number of written letters; the actual required time for communication has doubled. This increase of time spent on communication can be understood as a self-reinforcing mechanism: If an answer is available on the same day instead of within 14 days, an inherent, self-reinforcing impulse of accelerated communication results. Obviously, while the purpose of faster communication is to reduce time consumption for correspondence, paradoxically the time spent would increase.[18] Often organizational members are not able to spend more time on communication due to other job commitments. Hence, they have to compensate for the increased amount of communicated information per time unit. As indicated earlier, a possible way of handling an increased amount of information is to be available permanently (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 36; Menz, 2017, pp. 20–21).

Digital communication offers opportunities such as easy and fast communication. Also, the extent of freedom increases as one can decide when to contact somebody independent from time and space or other resources (cf. Hampton, 2016, p. 111). However, as a lot of organizational members are able to receive and answer digital messages at any time and everywhere – especially since smartphones, tablets or smart watches developed into omnipresent digital devices – the described impulse of accelerated communication may develop (cf. Boswell & Olson-Buchanan, 2016, p. 593; Fenner & Renn, 2004, p. 184). Often, organizational members tend to reply to work-related digital messages on holidays and at night (cf. Derks, Brummelhuis, Zecic, & Bakker, 2012, p. 82; Middleton & Cukier, 2006, p. 256). A pressure of being 'always on' is established (cf. Menz, 2017, p. 22).

This (partially unconscious) pressure may be based on the attempt to achieve resonance experiences: Humans want to be recognized by and connected to others (cf. Rosa, 2016,

[18] Certainly, there are other purposes such as an extended audience (cf. Baumanns, Bidmon, Erfurt Sandhu, Leipprand, & Triebel, 2015) or free movement of information (cf. Schmidt & Cohen, 2014, pp. 39–47). These are also accompanied with paradoxical challenges (cf. Böldicke & Erfurt Sandhu, 2017). While an extended audience might imply better access to potential stakeholders for companies, it might also imply stakeholders that are more critical. Referring to the point of better information – actors have access to diverse search engines and social media platforms enabling access to global information. However, since individualized, nontransparent algorithms (cf. Hamilton, Karahalios, Sandvig, & Eslami, 2014) influence the results of an Internet search as well as the news feeds on social media platforms, the access to information is determined according to one's interests and opinions. This leads to the problem of self-referentiality: the reproduction of own opinions and interests (cf. Luhmann, 1995, pp. 37–38, 1989, p. 145; Böldicke & Erfurt Sandhu, 2017, p. 57). These phenomena are worth mentioning based on their influence on human communication. However, analyzing those would go beyond the scope of this article.

pp. 24–25, 198–199, 281–298). When (unconsciously) aiming at positive feedback for complying with availability or checking if the last post led to reactions such as 'Likes'; organizational members aim at feeling perceived by and connected to others (cf. Rosa, 2016, p. 159). However, these (resonance) signals are not sustainable and follow an acceleration logic – the more 'Likes', processed emails or praises, the better (cf. Rosa, 2016, p. 159). These signals can function as digital social control influencing social norms and thereby one's actions at the workplace. E.g., receiving praise for a fast reaction on an email request may function as self-reinforcing social control. Through interactive expectation building (cf. Sydow, Schreyögg, & Koch, 2009, p. 700) and attempts to generate resonance experiences, other colleagues feel a slight pressure to act in that way as well.

If organizational members receive a work email outside regular working hours or if they know that colleagues are emailing outside working hours, they perceive such driving forces and also comply with such a pattern (cf. Menz, 2017, p. 22). At the same time, expectations of others adapt: More and more organizational members expect others to process messages and requests permanently or in general to be available permanently (cf. Urban & Ehlscheid, 2016, p. 294). Approximately 88 percent of organizational members in Germany are also available for colleagues, superiors or customers outside regular working hours (cf. German Association for Information Technology, Telecommunications and New Media, 2011, p. 49).

In some cases, the company or the current project requests availability, i.e., organizational members cannot decide it (cf. Menz, 2017, pp. 15–20). In other cases, it is a 'free' decision (cf. Menz, 2017, pp. 20–24). In the latter case, organizational members often intend to offload themselves in order to avoid too much work during regular working hours.

The study of Menz (2017, p. 22) also confirms, among others, that two unintended consequences develop; communication is accelerated and higher availability is expected. This can potentially lead to the described impulse of accelerated communication and an implicit availability request. For instance, significant email traffic already emerges on Sundays.

As soon as changing expectations regarding availability lock-in, organizational members are required to be 'always on', which would demand a permanent representation of one's professional role and norms (cf. appendix showing the potential development of permanent availability as a new norm based on a lock-in process). Certainly, the organizational member is still 'free' to interrupt this permanent representation. For example, some organizational members use the smartphone's flight mode when they have family time.

The study of Strobel (2013, p. 18) showed that the extent of perceived freedom is a condition for the positive effects of permanent availability. If the organizational member is able to say 'no' (e.g., flight mode) or is able to control the extent of work, the effects are more positive. In the ideal case, there is freedom to also ignore a request without expecting sanctions.[19]

However, this freedom has its limits where other organizational members or potential new organizational members are willing to be available permanently (social embeddedness). Since organizational members are often competing with each other, they have to assert themselves. Having organizational members that are available permanently enables faster and more efficient work processes. This is highly desirable for companies. Thus, it is a competitive disadvantage if one is not complying (cf. Zuboff, 1988, p. 351). Being 'free' from a norm of permanent availability is combined with the question of whether the organizational member is able to afford it while facing competition through the labor market. Hence, possibilities to escape a (new) norm depend on one's conditions and one's socio-demographic background.

These developments are of a subtle nature, which is typical for social control. Even if availability is currently voluntary, it can subtly rigidify into a norm as explained above. It is this newly developing subtlety that changes the conditions for moral discernment. Those subtly changing conditions can be dimly recognized and hardly understood.

[19] If such freedom does not exist, permanent availability develops to an implicit expectation and action request (cf. Hassler, Rau, Hupfeld, & Paridon, 2016, p. 13; Menz, 2017, p. 22).

Zuboff (1988, p. 348) identified that with the rise of digital information, more objective data is accessible. However, managerial skills remained more or less traditional, which implies that the competence needed to deal with the overload of information is limited.

If technology develops further and further while human competencies do not, problems of understanding influences of new communication technology prevail. Certainly, over the years, practice and academia has also developed further on the side of human competencies. However, there is still a need to upgrade human development to technological development, especially in management positions (cf. Sinn, 2015, pp. 11–13).

2.2 Indirect Communication: A Path to Secret Surveillance

A specific peculiarity and challenge of digital communication is its indirect character; i.e., there is no direct face-to-face contact.[20] With increasing indirect communication, it becomes more difficult for organizational members to process direct cues regarding the recipients' personality and emotions (cf. Kezsbom, 2000, p. 34; Rockmann & Northcraft, 2008). This is especially present if one is very active on social media or if one has to deal with different partners from abroad or simply if a company's communication mainly takes place via digital communication systems (cf. Zuboff, 1988, pp. 362–386). Since digital communication is more (cost-) efficient, this is often preferred.

Zuboff (1988, p. 370) presents a case where digital communication is described as a 'combination of isolation and connectedness'. The case describes the implementation of a computer conferencing system in the daily operations of an organization:

'Computer conferencing is a communications medium that offers an alternative to the constraints of geography and time associated with face-to-face meetings or telephone conversations while avoiding the formality of written correspondence' (Zuboff, 1988, p. 364).

Organizational members explain that this form of communication leads to psychological security enabling more honest communication (cf. Zuboff, 1988, p. 370). This may also be

[20] Often, digital communication is reduced to perceptions via vision and partly via hearing. Perceptions like smelling, tasting and touching are mainly excluded.

related to the indirect character. In contrast to more direct communication, organizational members are subtly motivated by benefits like psychological security to use digital communication technologies.

However, this example also presents another digital social control: secret surveillance through panoptic power. Panoptic power can be understood as centralized power of managers using communication technology as tools of observation and control.[21]

The term 'secret' already indicates that subtle influences continue to play a significant role. Again, problems like these have already been prevalent before the age of digital communication. Nonetheless, the subtlety has reached a new level based on the development of technology. Through digital communication technology, control mechanisms are hardly visible, or even completely invisible. Therefore, surveillance through other organizational members becomes easier to hide. On the other hand, every digital communication is transformed into a concrete presence through technological systems, meaning it can easily be made visible and traced back (cf. Zuboff, 1988, pp. 376, 381, 384).

Referring to the case of Zuboff (1988, pp. 362–386), managers have exploited the involuntary display of the employees and have violated privacy and trust. Even if conversations were designated as 'closed', the content was in fact open for unilateral screening by management (cf. Zuboff, 1988, pp. 383–384). Indeed, management had new possibilities to optimize employees' performance and increase productivity based on such involuntary displays. As discussed above, there are recent accounts of such internal surveillance in organizations (cf. German Federal Labour Court, 2017).

The problem is, even if new laws have been passed to prevent such methods, organizational members cannot know if that is the case or not. Approximately 46 percent of organizational members in Germany feel a higher degree of surveillance as a result of digitalization (cf.

[21] Panopticism was originally developed by Foucault (1995) based on the Panopticon of Bentham (1791). The Bentham (1791) panopticon is a type of institutional building enabling that all members of the institution can be observed by one watchman without recognizing whether they are observed or not. Foucault (1995) used the Panopticon to develop the social theory of panopticism which explained the changing surveillance and control mechanisms and resulting compliance requirements in the course of the 18th century.

DGB, 2016, p. 13). These new contingencies fundamentally challenge conditions of digital communication. According to the presented case of Zuboff (1988, p. 385): 'Management has not been able to appreciate how the electronic network improved morale. The company hierarchy does not have a very good understanding of the social and emotional needs of people to communicate. They have become preoccupied with security, cost, and counter-culture/ egalitarian issues.'

It has been shown that *digital communication gives rise to new (digital) social control forces* (cf. first proposition). *The subtlety of digital social control makes it harder for organizational members to understand the conditions of communication* (cf. second proposition).

The following pages are devoted to theoretically reconstructing the resulting challenge for moral discernment.

3. A New Challenge for Moral Discernment

3.1 Moral Discernment and the Practical Syllogism

Moral discernment is a competence, which enables moral evaluation of actions, as well as the derivation of legitimate expectations regarding peoples' behavior. It concerns an integrated consideration of values ('what does really matter?') and reality ('what prevents us from acting accordingly?') in order to derive decisions ('what is the right thing to do?') (cf. Suchanek, 2015, pp. 9–10, 13–14, 42, 152, 174).

This way of making decisions is depicted in the practical syllogism (cf. Suchanek, 2015, pp. 42–46). This syllogism is an ethical heuristic which supports the competence of moral discernment (cf. figure 2). This heuristic is used to conceptualize moral discernment[22] to

[22] It has to be noted that, despite the significance of this competence, moral discernment is a rather elusive construct. It can be understood as 'profound intuition' which depends on 'lifelong learning' as well as gathering and reflecting upon personal experiences. For this reason, the theoretical explanation of moral discernment and the recommendation regarding specific training of moral discernment contained in this article are too narrow a scope for reality. Grasping the whole meaning of moral discernment via specific training and concepts does not suffice in order to achieve its ambitious claim of doing 'the right thing' or avoiding bad.

systematically exemplify that a weak understanding of conditions of communication diminishes moral discernment.

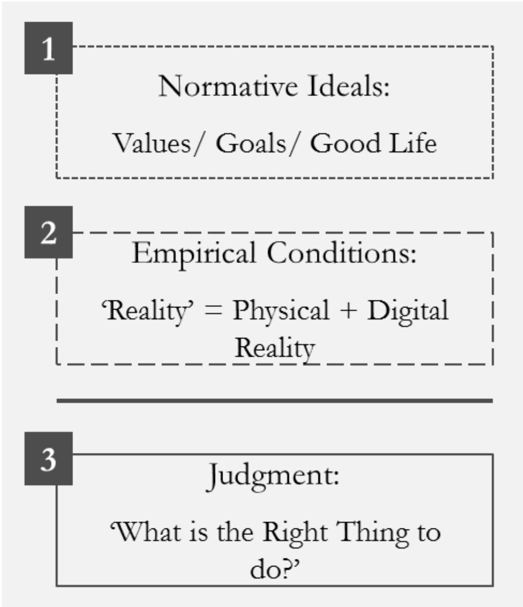

Figure 2: The Practical Syllogism (Source: Own illustration based on Suchanek, 2015, p. 44)

The practical syllogism asks its 'user' to systematize a judgment (3) by reflecting on (1) normative ideals as well as (2) empirical conditions. The following thoughts shed light on this ethical heuristic and make it more tangible. A fundamental question in ethics remains 'What is the right thing to do?' (vis-a-vis level 3 in figure 2 above). This question not only sheds light on what constitutes a reasonable action or investment but also, on what one can expect of others. Answering this fundamental ethical question necessitates a number of pre-considerations. Hence, preliminary questions have to be asked.

Firstly, 'What does really matter in life?' (see level 1). Typical answers are health, family, freedom, satisfaction or social acceptance. Generalizing this leads us to typical (moral) values, normative ideals or a good life. Secondly, 'If all this really matters to us, what encourages us and more importantly, what prevents us from acting accordingly?' (compare to level 2). This question addresses the empirical – including situational – conditions. The reflection of these conditions should be done as objective as possible by referring to the perspective of an impartial spectator[23].

In ethics, this question is often given insufficient attention as the normative ideals and values are given priority.[24] However, the moral value of moral discernment lies in exactly this nexus of level 1 and 2, which gives relevance and suitability for the everyday application of ethics.

As an example, freedom (level 1) does not imply doing whatever you want. Freedom lies in the recognition of one's own freedom with respect to the freedom of others (level 2). This implies the reflection of one's actions regarding the interests of others and one's own dependence on others.[25] Humans become free if they are able to understand their embeddedness as a result of their own self-reflection (cf. Durkheim, 1972, pp. 108–109). In other words, it is about a reciprocal recognition of the interests of and dependencies on others (social embeddedness).

This short excursus on freedom shows that level 1 (freedom) depends on level 2 (embeddedness) in order to derive ethical decisions for everyday use. If organizational members derive decisions by only addressing level 1, it potentially leads to excessive moral demands. On the other hand, if organizational members derive decisions by only addressing level 2, it potentially leads to immoral behaviors and ideas.

The following two examples clarify the corresponding fallacies:

1. Normative Fallacy (deriving 'the right thing to do' only from level 1: normative values):

[23] The theoretical concept of the impartial spectator goes back to Adam Smith (2000, p. 148). In the 'Theory of Moral Sentiments' he describes the impartial spectator as a certain attitude of a human when making moral judgments. The impartial spectator tries to derive judgements on one's own behavior as well as on the behavior of others, which are sufficiently objective and honest.

[24] This might be reasonable if the problem at hand is focusing on the identification or justification of normative ideals (level 1), which is why the implementation aspect (level 2) becomes subordinate. However, as this ethical approach is about the integration of level 1 and level 2, we are abstaining from this focus on level 1.

[25] This approach is discussed in more detail by Hegel (1991), Durkheim (1972), Marx and Engels (2010) and Han (2016).

It is comparably easy to be against permanent availability or secret surveillance because it might be against values like freedom or privacy (level 1) – so long as one is not confronted with the distinctive forces of a situational conflict, like an important project or pressure from colleagues (level 2).

2. Empirical Fallacy (deriving 'the right thing to do' only from level 2: empirical conditions):

   Vice versa, it is also possible that organizational members who are highly integrated into the digitalized world know about the shortcomings or risks of these developments like surveillance or undermined recovery ability due to permanent availability. However, they view these influences as an immanent factor of the (digital) reality (level 2), although they are undermining essential values like freedom, privacy or health (level 1) that would guide their actions to sustainable cooperation, or simply to the 'right decision'.

Both views imply a reductionist view of decision-making. Such developments are rarely black-or-white (cf. Badaracco, 2016; Böldicke & Erfurt Sandhu, 2017, p. 57). Rather, it is a question of reflecting on potential fallacies: Permanent availability and new surveillance technologies are neither fault-free developments empowering humans to infinite freedom of action, nor are they hostile developments which reduce humans to mere factors of production. The answer is usually in between.

With level 1 and level 2, the practical syllogism considers the discrepancy between values and reality, which is essential for critically evaluating the driving forces of digital communication (that means considering both opportunities and risks). This approach is essential for developing a diagnostic capability for the impediments as well as conducive conditions (level 2) of a good (working) life (level 1) and finally, for the 'right' decisions or investments (level 3).

This becomes problematic if newly developing conditions further complicate moral discernment according to the practical syllogism. In particular, the derivation of 'the right thing to do' (level 3) is getting increasingly difficult due to the subtlety of digital social controls (level 2).

The next section is dedicated to applying the category of digital social control to the practical syllogism in order to address the third proposition: *When a solid understanding of conditions of communication is lacking, reasonable moral discernment is nearly impossible.*

3.2 The Practical Syllogism and Digital Social Control

Social control regulates implicit agreements among social actors about what constitutes adequate attitudes and behavior (cf. O'Reilly, 2008, p. 88). The special nature of social control is its subtle character: organizational members do not feel heteronomous control. They even feel as if they have great freedom, although they are paradoxically conforming much more to organizational standards (cf. O'Reilly, 2008, p. 88).

Social control is an ever-present and inevitable phenomenon which influences actions according to norms. As such, norms influence expectations and thereby may function as an incentive for cooperation (cf. Park, 1921, p. 20; Park & Burgess, 1921, p. 42). These sorts of forces are an inherent element of every societal group: Norms guide everyday actions and are necessary for viable forms of organization (cf. Jannowitz, 1975, p. 82; Ross, 1896, p. 519). However, due to their subtle nature, these forces can develop unconsciously. If these driving forces occur in combination with promising new opportunities, as it is within the digital age, subtly developing consequences become hard to recognize.

Organizational norms or standards are conceptualized as behavioral regularities, which are affirmed by sanctioning deviant behavior or by encouraging compliant behavior e.g., by positive feedback (cf. Coleman, 1994, p. 244; Popitz, 2017; Schneier, 2012).

An example for sanctions is social exclusion (e.g., none or negative reactions on a post that is deviating from organizational expectations) (cf. Young, 2006). Social reactions in case of compliant behavior are praise (e.g., personal praise by one's superior for the fast reaction on an email request) or rewards (e.g., a high amount of 'Likes'). These forms of social control forces are to be categorized as external social control (the categorizations are based on Lamnek, Luedtke, Ottermann, & Vogl, 2012, p. 76).

Internal social control forces are based on the internalization of expectations. Regulatory mechanisms result in a bad conscience in case of deviant behavior (e.g., guilt feelings, regret or shame) and in positive self-confidence (e.g., pride or ease of mind) in case of compliant behavior. Both forms are interdependent, (one can also feel guilty while at the same time being socially excluded due to one's post).[26]

Some social control forces are difficult to categorize clearly into one of these dimensions. Driving forces such as acceleration, the attempt to generate resonance experiences or indirect communication (cf. section 2) can be considered to be both external and internal social control forces. Since organizational expectations and social control are mechanisms, which guide social behavior, they are a constitutive factor of every form of organization. Hence, the proposal to eliminate such forces or the like is not appropriate.

The figure below transfers the concept of the practical syllogism to the influences of digital social control. This illustrates the challenge posed to moral discernment.

[26] A noteworthy example for this is the termination of employment of a Porsche apprentice because of his Facebook post containing a call for violent behavior towards a refugee (cf. Munzinger & Anetzberger, 2015). Consequences were the exclusion from the company as well as possibly regret for his actions. This shows the blurring separation of private and work life caused by digital communication, as well as the norm of permanent availability, since the apprentice received consequences with regard to its professional role although, at that time, the representation of the professional role was not directly required.

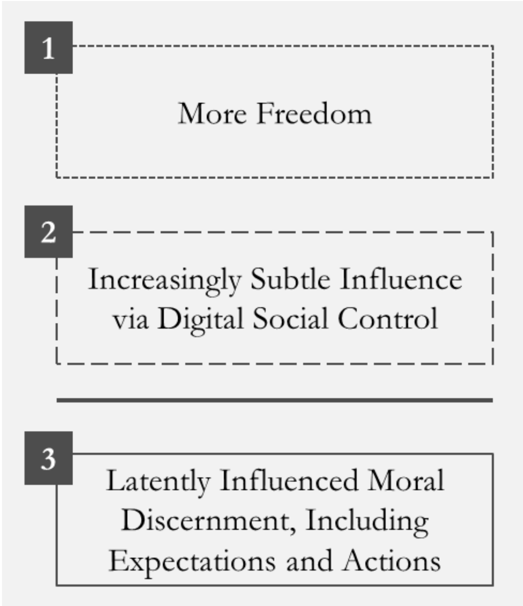

Figure 3: The Practical Syllogism and Digital Social Control (Source: Own illustration based on Suchanek, 2015, p. 44)

Freedom (1) is understood as the normative self-conception (meaning of a good life) of humans including their roles as organizational members (cf. Crawford, 2016, pp. 35, 120–121; Rosa, 2016, pp. 18, 40, 672).

According to level 2, organizational members must identify conducive or hindering conditions regarding this overarching ideal. At this level, they are faced with the aforementioned problem of digital social controls. This challenges the competence of moral discernment: new conditions are hard to understand (level 2), expectations and actions are unconsciously adapted (level 3). This is mirrored in the third proposition: *When a solid understanding of conditions of communication is lacking, strong moral discernment is impossible.*

By this point at the latest, it is clear, that the challenge for moral discernment is caused by the weak digital literacy of organizational members. Part of digital literacy is a general understanding of possible processes that are latently taking place when communicating digitally.

If organizational members are trained to develop digital literacy[27], the path for improved moral discernment is facilitated. However, this is just the pre-requisite condition. Therefore, training should consist of digital literacy in combination with moral discernment (cf. section 4.1).

If moral discernment (including digital literacy) is not trained[28] within organizations, a potential outcome is digital alienation (cf. fourth proposition). As such, the next section is devoted to theoretically reconstructing the new category of digital alienation.

3.3 Digital Alienation Based on a Lack of Understanding

Throughout this paper, it has been argued that digital social control has a subtle character: Organizational members do not feel heteronomous control. We argue that, based on the developments examined thus far, a digital form of alienation develops. The starting point of these considerations is heteronomy as an inevitable condition of action in professional relationships.

Heteronomy is often understood as the opposite of freedom. It refers to a situation wherein a human's actions are mainly influenced indirectly by external conditions rather than directly by themselves. However, as explained in section 3.1, freedom is about the reciprocal recognition of the interests of and dependencies on others. According to this logic, heteronomy is not the opposite of freedom; rather freedom and heteronomy are interdependent states.

Heteronomous dependencies are indispensable and omnipresent, especially in professional relationships in times of division of labor. As it is an integral component of cooperation, heteronomy can lead to more productivity, efficiency or innovative products and services. Heteronomy is not a problem per se, but it can develop into a problem if it leads to alienation.

---

[27] It has to be noted that digital literacy should be trained on management- as well as on employee-level. This is necessary in order to enable an adequate understanding of new conditions of digital communication.

[28] While everybody is equipped with moral discernment, the level of 'training' is the decisive factor influencing the ability to really do 'the right thing' as well as avoid doing bad things (cf. Suchanek, 2015).

Especially in the industrial age, alienation referred to 'an alien force existing […] independent of the will and the action of man' (cf. Marx & Engels, 2010, p. 48). Often, alienation is a job-related problem based on (monotonous) tasks which one cannot influence (cf. Marx & Engels, 2010, pp. 47–48).

In general, the problem emerges if humans are not able to understand the conditions of actions in which they are embedded (cf. Paul & Suchanek, 1994, p. 3). This is often accompanied by a feeling of losing control[29] (for more details see for example Dahrendorf, 1959, p. 78; Jaeggi, 2016, pp. 20–21, 24, 80; Karger, 1981; Marx & Engels, 2010; May, 1985, p. 54; Paul & Suchanek, 1994; Seeman, 1959).

Since this article focuses on the problem of a weak understanding of newly developing conditions in digital communication, we constrain the analysis to the potential development of alienation due to a lack of understanding (there are also other causes, for instance, factual dysfunctionalities or a missing sense of purpose for one's work). This is in line with Paul and Suchanek (1994, p. 1), who identify two central aspects of alienation (only those aspects which are relevant to P4 are presented):

1. Traditional conditions (of communication) lose overall validity (e.g., human-to-human communication becomes indirect and there are changes in conditions of privacy and surveillance of communication, cf. section 2.2).

2. Conditions (of communication) develop their own autonomy (e.g., in form of self-reinforcing mechanisms through acceleration and resonance experiences leading to permanent availability, cf. section 2.1).

Both aspects complicate the understanding of newly developing conditions. The problem of alienation is the circumstance that even though organizational actors might not understand their conditions, they have to comply with the corresponding requirements.[30] On this

[29] Approximately 45 percent of organizational members in Germany feel powerless with regard to digital technology (cf. DGB, 2016, p. 15).

[30] This is similar to Weber's (1958, pp. 54–55) description of an 'unalterable order of things' to which one must comply. Individuals are – to some extent – required to conform to the (capitalistic) rules of the game, unless they leave the sphere of capitalistic economies.

basis, digital alienation refers to organizational members' relation with newly developing conditions of digital communication. In particular, if digital literacy and moral discernment remain outdated, organizational members are becoming incrementally alienated from their conditions of communication including other persons and institutions. This is reflected in the fourth proposition: *If moral discernment (including digital literacy) is not trained within companies, a potential outcome is digital alienation.*

One could say, while we are digitally connecting more and more, we are analogously becoming alienated from others.

This is well illustrated in the changes discussed above (cf. section 2): With indirect communication, organizational members perceive psychological security enabling them to communicate more honestly (cf. Zuboff, 1988, p. 370). Obviously, it is less difficult to overcome oneself being honest. At the same time, organizational members are alienated from the communicated content, since the absence of face-to-face interaction makes the connection to the content (including the communication partner) looser.

Further, if organizational members fear the risk of being controlled when communicating digitally (involuntary display), they might opt for anticipatory conformity (cf. Zuboff, 1988, p. 381). This means, organizational members are 'toning down' the character of their communication. This sets the aspects of psychological security and honesty aside.

Obviously, while the intention of digital communication is to be connected with everybody, organizational members are paradoxically losing their (deeper social) connection; they become digitally alienated.

With regard to accelerated communication contexts, preset sentence components (e.g., 'how are you?') are used to save time. At the same time, organizational members aim to achieve resonance signals which follow an acceleration logic (cf. Rosa, 2016, p. 159): They aim to receive more and more signals of feeling connected and being acknowledged by others. Similar to the peculiarity of indirect communication, this also distances the organizational member from the communicated content if communication is increasingly about the quantity rather than the quality of content.

The more organizational members become distanced from or indifferent toward the quality of communicated content, the better they can comply with the newly developing conditions of communication (cf. Rosa, 2014, p. 484). But, when organizational members rely on the familiarization or adequate understanding of working conditions, such a distance possibly leads to (digital) alienation (cf. Rosa, 2014, p. 484). Even though organizational members are embedded in these conditions of communication, they are losing the connection to it. It can be understood as a state of unrelated embeddedness (cf. Jaeggi, 2016, pp. 20–25).

Recapping, the risk of organizational members becoming digitally alienated from their conditions of communication prevails since (deeper social) experiences, which partially rely on interpersonal contacts, are fading into the background. This is an economic problem as this social dimension gives stability and trust (cf. Freud, 2013; Rockmann & Northcraft, 2008), which is a crucial condition for effective professional relationships (cf. Suchanek, 2015).

4. Outlook

4.1 Professional Training of Moral Discernment

It has been shown that a main challenge of digital communication is that organizational members are subtly losing track of the conditions and dependencies of this new communication form, while the usage of communication technologies is increasing. Obviously, this discrepancy poses a challenge to moral discernment and can even lead to digital alienation.

In a work context, responsible behavior needs to be coordinated by stable structures and enabled by managers. This is necessary for enabling conducive role model behavior and breathing room outside of professional roles.

The question arises: 'Who is responsible?'

We mainly focus recommendations regarding investments that organizations can make. A problem could be that organizations rather see these investments as opportunity costs which they would prefer to avoid. As explained above, for an organization it can also be efficient if organizational members may be optimized through surveillance or if they process information permanently due to their constant availability (at least in the short- and medium-term).

However, some companies that reacted to the issues of digital communication received a push in their reputation (cf. Boewe & Schulten, 2014, p. 25; BMAS, 2015). In order to transform the recommendations into investments, they need to be incentive compatible (cf. Homann, 2014; Suchanek, 2015). That means that there needs to be a clear value for the company (e.g., reputation advantages or fewer costs through fewer sick days). If this can be assured, organizations can invest in responsible behavior in times of digital communication.

As indicated earlier, digital literacy is a necessary pre-requisite for moral discernment in today's organizational environment. Organizational members need to develop a better understanding of possible processes that are taking place whilst they are communicating digitally (e.g., dynamics of accelerated communication, data storage on servers or invisible processes guiding the news feed on social media).

As such, we derive an integrated two-level approach for training moral discernment in times of digital communication:

1. Training of digital literacy by technology experts[31]
2. Training of moral discernment by experts in business and economic ethics

As indicated, the two-level-training should not be understood as two separated training sessions or topics: they need to be integrated, with both approaches trained together. E.g., when discussing data storage on servers (technology training), the discussion needs to be extended towards cases of situational conflicts by applying ethical concepts like the practical syllogism (ethics training). Questions like 'What is the right thing to do if one gets asked

[31] As indicated above, digital literacy should be trained on management- as well as on employee-level in order to prevent digital alienation. Training should be adapted with regard to competence, background knowledge and the position in the organizational hierarchy of the organizational members. However, the two-stage-training, including moral discernment is especially relevant for management. In that context, managers are advised to individually train their teams and employees should be encouraged to consult their supervisors if they are not sure about 'the right thing to do'.

to systematically check personal communication on a data server?' or 'What is the right thing to do if one is perceiving an overload of digital information?' need to be part of the discussions.

Within the digital age, decisions such as these need to be taken more and more often. It has to be noted that due to the different requirements and consequences for different positions, personalities and generations, as well as due to different forms of organizations, individual solutions have to be developed in a participatory approach, in conjunction with affected organizational members.

This can develop awareness on these newly developing and sensitive topics. This level of awareness is necessary in order to adequately deal with such forces at an early stage (e.g., not misusing digital social control in order to subtly force and exploit permanent availability or secret surveillance). Seemingly, moral discernment aims at encouraging a conducive work culture, but this can only be effective if organizational members and especially managers open up for this attitude (cf. Sullivan, 2014, p. 7).

4.2 Interruption of Interdependence

In addition to the recommendation of investing in moral discernment, we also recommend institutionalizing 'interruption of interdependence'. 'Interruption of interdependence' is understood as a reflected separation of private and work life (cf. Luhmann, 2013).[32] This involves cutting off the connection between a organizational member's private roles and professional roles. This enables mental and technological detachment.

The ability to say 'no' was discussed above as a conducive condition. This can be seen as an interruption of interdependence; examples are activating a smartphone's flight mode, defining times in which an organizational member is unavailable or shutting down the email servers. However, these interruptions of interdependence need to be supported by organizational structures in which organizational members are embedded.

[32] An example would be activating a smartphone's flight mode, shutting down the email servers of a company or deleting one's social media account.

Interruption of interdependence can be seen as a form of self-commitment. Self-commitment implies constraining oneself to a course of action that meets legitimate expectations (of oneself or of others) (cf. Suchanek, 2011, p. 6). It means adhering to values and principles, especially in situational conflicts (cf. Suchanek, 2015, pp. 49–53, 85–87).

Such principles can be privacy, the 'right to unavailability' or the 'right to recovery'; while the situational conflict could, for instance, be the decision between being available or not. If organizational members are not able to say 'no' without risking competitive disadvantages, they get into the dilemma of deciding between loyalty to one's own values (health, privacy, etc.) or to the organization's demands (efficiency, productivity, etc.).

It goes without saying that such a dilemma is neither conducive for the organizational member nor for the company, especially when aiming at long-term cooperation for mutual advantage, i.e., that the company invests in the organizational member's qualifications and the organizational member remains by the company and utilizes the qualifications accordingly. Hence, the loyalty to oneself and the loyalty to the company need to be enabled at the same time. However, if an organizational member assumes sanctions as a result of not being available permanently, the organizational member is forced into the dilemma.

Such organizational conditions would also lead to organizational members being 'caught in the orbit' of interests and opinions of the professional roles of the organizational environment. This hinders their ability to understand the bigger picture since opinions are reproduced rather than reflected upon (cf. Böldicke & Erfurt Sandhu, 2017, p. 57). In other words, if interruption of interdependence is not possible, moral discernment, and correspondingly responsible decision-making, is constrained, even if digital literacy can be assumed.

In conclusion, organizations need to invest in regular training of digital literacy and moral discernment in order to prevent such situations as well as to reflect on them if they do occur, since they are unlikely to be prevented 100 percent of the time.

As indicated at the beginning of this article, we derive two needs for action:

1. Integration of rules of unavailability (new regulations for organizational members)

2. Institutionalization of professional training of moral discernment in order to promote responsible business behavior in times of digital communication (new two-level-training for managers)

While the theoretical focus remained on the second issue, the reader should now also understand the interdependence of both: The success of professional training depends on unavailability, since moral discernment depends on interruption of interdependence.

5. Appendix: Development of Permanent Availability as a New Norm based on a Lock-in Process

In this appendix, the possible development of permanent availability as a lock-in process is delineated. The lock-in of permanent availability develops by self-reinforcing mechanisms, which affect expectations in different ways. Sydow, Schreyögg, & Koch (2009) identify different self-reinforcing mechanisms which influence an organizational path leading to a lock-in. We classify one such mechanism as a driving social control force based on the subtle influence on behavioral expectations, namely the adaptive expectation effect (cf. Sydow, Schreyögg, & Koch, 2009, p. 700). Based on this effect, individual preferences and action patterns vary referring to the expectations of others (cf. figure 4: interactive expectation building).

Since individuals are 'often uncertain about the right choice, they feel rewarded by the fact that others are likely to prefer the same' (cf. Sydow, Schreyögg, & Koch, 2009, p. 700). We further classify the adaptive expectation effect as the desire of making resonance. The related resonance desire may be the force of legitimacy signaling or seeking; individuals that are not following the mainstream practices (e.g., being available permanently) become afraid of losing legitimacy and – if associated with failure[33] of becoming stigmatized as outsiders (cf. Kulik, Bainbridge, & Cregan, 2008; Luhmann, 2007).

In the following we show the possible process that can be triggered by these dynamics, namely the process of an organizational path. An organizational path can result in a lock-in effect; in our case we examine the lock-in of a new norm regarding permanent availability (cf. figure 4).

[33] An example would be a situation where an important business partner was almost lost because it was expected that a request was processed the same day or night.

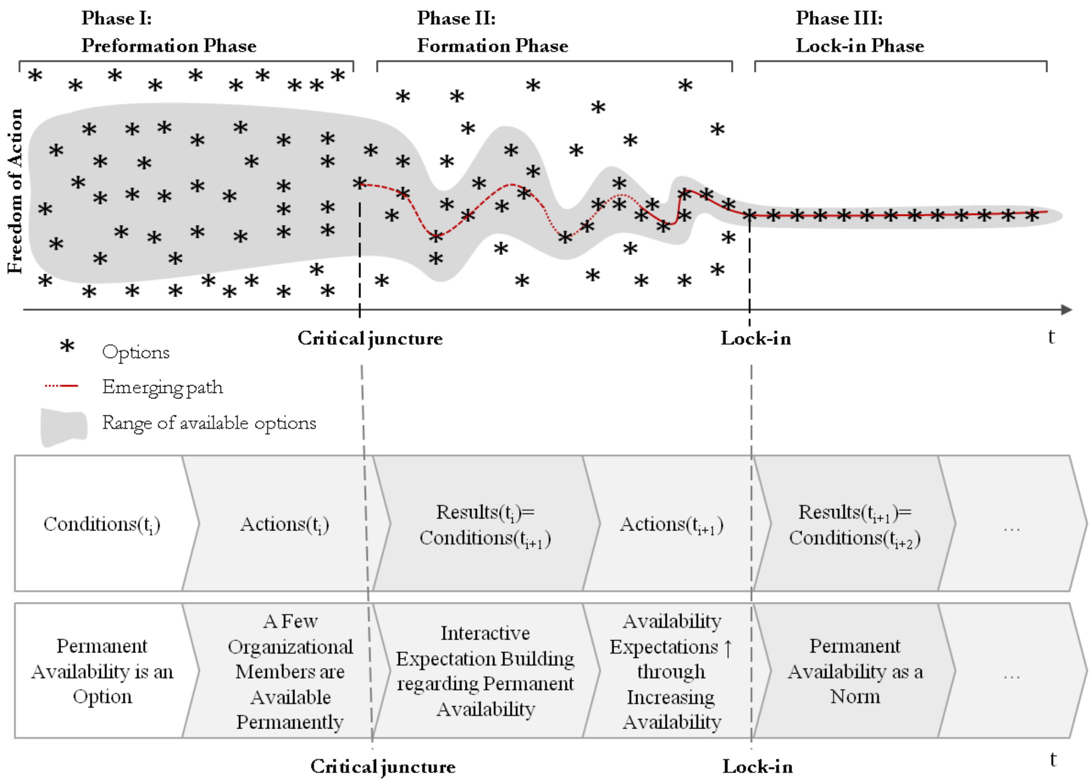

Figure 4: The Development of Permanent Availability as a New Norm based on a Lock-in Process (Source: Own illustration based on Suchanek, 2015; Sydow, Schreyögg, & Koch, 2009)

The upper part of figure 4 shows the lock-in process based on the concept of path dependence. Phase I is called the Preformation phase (cf. Sydow, Schreyögg, & Koch, 2009, p. 691). This phase is characterized by diverse possibilities of action. Once a specific choice is made, it may amount to a small event setting off self-reinforcing mechanisms. The moment of entering into the dynamics of self-reinforcing mechanisms is called critical juncture.

With this, Phase II – the Formation phase – is beginning. The freedom of action is narrowing and it gets increasingly difficult to reverse the initial action pattern: A path is evolving. Self-reinforcing patterns based on positive feedback respectively resonance experiences are following their inherent dynamics; hence they reproduce themselves (cf. Sydow, Schreyögg, & Koch, 2009, p. 694). However, the decision processes are still contingent, meaning that different outcomes or paths are still possible.

The Lock-in phase (Phase III) is characterized by further narrowing what is leading to a fixation of the dominant action pattern (Sydow, Schreyögg, & Koch, 2009, p.692). Flexibility is getting lost and the pattern develops a deterministic character: A norm develops. As soon as a norm establishes 'the socially defined right to control the action' is not held by the individual but by others (Coleman, 1994, p. 234). If a lock-in effect is established, organizational members are keen to reproduce this pattern, independent of the availability of better (or more efficient) patterns.

Such a lock-in process may go unnoticed, if organizational members mainly focus on direct, intended results, thereby missing out of essential other results (e.g., the lock-in of a new norm). This is conceptualized in the lower part of figure 4 showing the concept of temporal embeddedness. Among others, temporal embeddedness implies that the results of today's actions define the future conditions of action (cf. Suchanek, 2015, p. 132). Combining the lock-in process and temporal embeddedness shows the possible development of the norm of permanent availability (cf. figure 4).

The starting point is the Preformation phase in which organizational members have diverse possibilities regarding the availability of their professional role (cf. Sydow, Schreyögg, & Koch, 2009, p. 691). Based on these initial conditions, a few organizational members make the (conscious or unconscious) choice to be available permanently what may result in self-reinforcing mechanisms such as getting positive feedback for their permanent availability: They experience resonance. The results of these actions define the future conditions of action, namely the interactive development of availability expectations. Here, critical juncture is the moment of entering into the interplay of positive feedback and expectation building.

Gradually, phase II, the Formation phase – is beginning. Following the process of an organizational path, freedom of action is narrowing and a path is evolving: An increasing amount of organizational members is available permanently. The self-reinforcing pattern of permanent availability based on positive feedback is reproducing itself. However, the decision processes are still contingent, meaning that being available permanently is still an option.

As soon as the Lock-in phase (phase III) begins, the freedom of action is further narrowing and a dominant action pattern establishes (cf. Sydow, Schreyögg, & Koch, 2009, p. 692). The pattern gets a deterministic character: Permanent availability becomes a norm. From this point on it is beyond the power of the organizational member to control this expectation, as it became a norm.

6. References

Badaracco, J. L. (2016). Managing Yourself: How to Tackle Your Toughest Decisions. *Harvard Business Review*, *94*(9), 104–107.

Baumanns, M., Bidmon, C., Erfurt Sandhu, P., Leipprand, T., & Triebel, O. M. (2015). *Beyond Easy Answers. New Leadership Practice for the Digital Age*. Berlin: LEAD, Mercator Capacity Building Center For Leadership & Advocacy.

Bentham, J. (1791). *Panopticon Or the Inspection House: Containing the Idea of a New Principle of Construction*. London: Verso.

BMAS (2015). *Zeit- und ortsflexibles Arbeiten in Betrieben: Sammlung betrieblicher Gestaltungsbeispiele*. Berlin: Bundesministerium für Arbeit und Soziales.

Boewe, J., & Schulten, J. (2014). Dienstplanung per Smartphone: Mobile Anwendungen zur Personaleinsatzplanung fordern Betriebsräte heraus. *Magazin Mitbestimmung, Hans-Böckler-Stiftung*, (12), 16–19.

Böldicke, E. M., & Erfurt Sandhu, P. (2017). Ständig erreichbar: Die Entgrenzung von Mensch und Organisation. *Zeitschrift für Unternehmensentwicklung und Change Management*, *36*(4), 56–59.

Boswell, W. R., & Olson-Buchanan, J. B. (2016). The Use of Communication Technologies After Hours: The Role of Work Attitudes and Work-Life Conflict. *Journal of Management*, *33*(4), 592–610.

Coleman, J. S. (1994). *Foundations of Social Theory*. Cambridge, Mass.: Belknap Press of Harvard University Press.

Crawford, M. B. (2016). *Die Wiedergewinnung des Wirklichen: Eine Philosophie des Ichs im Zeitalter der Zerstreuung*. Berlin: Ullstein.

Dahrendorf, R. (1959). *Sozialstruktur des Betriebes*. Wiesbaden: Gabler.

Derks, D., Brummelhuis, L. L. ten, Zecic, D., & Bakker, A. B. (2012). Switching on and off …: Does Smartphone Use Obstruct the Possibility to Engage in Recovery Activities? *European Journal of Work and Organizational Psychology*, *23*(1), 80–90.

Derks, D., van Mierlo, H., & Schmitz, E. B. (2014). A Diary Study on Work-Related Smartphone Use, Psychological Detachment and Exhaustion: Examining the Role of the Perceived Segmentation Norm. *Journal of Occupational Health Psychology*, *19*(1), 74–84.

DGB. (2016). *DGB-Index Gute Arbeit Der Report 2016: Wie die Beschäftigten die Arbeitsbedingungen in Deutschland beurteilen*. Die Digitalisierung der Arbeitswelt – Eine Zwischenbilanz aus der Sicht der Beschäftigten. Deutscher Gewerkschaftsbund: Berlin.

Durkheim, É. (1972). Moral Obligation, Duty and Freedom. In A. Giddens (Ed.), *Émile Durkheim: Selected Writings* (pp. 108–122). Cambridge: Cambridge University Press.

Eshet, Y. (2004). Digital Literacy: A Conceptual Framework for Survival Skills in the Digital Era. *Journal of Educational Multimedia and Hypermedia*, 13(1), 93-106.

Fenner, G. H., & Renn, R. W. (2004). Technology-Assisted Supplemental Work: Construct Definition and a Research Framework. *Human Resource Management*, *43*(2–3), 179–200.

Foucault, M. (1995). *Discipline and Punish: The Birth of the Prison* (2nd edition). New York: Vintage Books.

Freud, S. (2013). *Das Unbehagen in der Kultur in: Das Unbehagen in der Kultur und andere kulturtheoretische Schriften* (3rd edition). Frankfurt am Main: Fischer-Taschenbuch-Verlag.

German Association for Information Technology, Telecommunications and New Media. (2011). *Netzgesellschaft: Eine repräsentative Untersuchung zur Mediennutzung und dem Informationsverhalten der Gesellschaft in Deutschland*. Berlin: BITKOM.

German Association for Information Technology, Telecommunications and New Media. (2018). *Anzahl empfangener dienstlicher E-Mails pro Tag in den Jahren 2011 und 2018*. Berlin: BITKOM. Retrieved from: http://de.statista.com/statistik/daten/studie/328293/umfrage/anzahl-der-empfangenen-dienstlichen-e-mails-pro-tag-in-deutschland/

German Federal Labour Court. (2017). *Pressemitteilung Nr. 31/17: Überwachung mittels Keylogger - Verwertungsverbot*. Retrieved from http://juris.bundesarbeitsgericht.de/cgi-bin/rechtsprechung/document.py?Gericht=bag&Art=pm&nr=19403

Gunia, B. C., Wang, L., Huang, L., Wang, J., & Murnighan, J. K. (2012). Contemplation and Conversation: Subtle Influences on Moral Decision Making. *Academy of Management Journal*, *55*(1), 13–33.

Hamilton, K., Karahalios, K., Sandvig, C., & Eslami, M. (2014). A Path to Understanding the Effects of Algorithm Awareness. In M. Jones, P. Palanque, A. Schmidt, & T. Grossman (Eds.), *Extended Abstracts on Human Factors in Computing Systems* (pp. 631–642). New York: ACM.

Hampton, K. N. (2016). Persistent and Pervasive Community: New Communication Technologies and the Future of Community. *American Behavioral Scientist*, *60*(1), 101–124.

Han, B.-C. (2016). *Psychopolitik: Neoliberalismus und die neuen Machttechniken* (2nd edition). Frankfurt am Main: Fischer.

Hassler, M., & Rau, R. (2016). Ständige Erreichbarkeit: Flexibilisierungsanforderung oder Flexibilisierungsmöglichkeit? *Wirtschaftspsychologie*, *18*(2), 25–34.

Hassler, M., Rau, R., Hupfeld, J., & Paridon, H. (2016). *Auswirkungen von ständiger Erreichbarkeit und Präventionsmöglichkeiten: Teil 2: Eine wissenschaftliche Untersuchung zu potentiellen Folgen für Erholung und Gesundheit und Gestaltungsvorschläge für Unternehmen*. Dresden: Initiative Gesundheit und Arbeit.

Hegel, G. W. F. (1991). *Elements of the Philosophy of Right*. Cambridge: Cambridge University Press.

Homann, K. (2014). *Sollen und Können: Grenzen und Bedingungen der Individualmoral* . Wien: Ibera Verlag European University Press.

Jaeggi, R. (2016). *Entfremdung: Zur Aktualität eines sozialphilosophischen Problems*. Frankfurt am Main: Suhrkamp.

Jannowitz, M. (1975). Sociological Theory and Social Control. *American Journal of Sociology*, *81*(1).

Karger, H. J. (1981). Burnout as Alienation. *Social Service Review*, 55(2), 270–283.

Kezsbom, D. S. (2000). Creating Teamwork in Virtual Teams. *Cost Engineering*, *42*(10), 33–36.

Lamnek, S., Luedtke, J., Ottermann, R., & Vogl, S. (2012). *Tatort Familie: Häusliche Gewalt im gesellschaftlichen Kontext* (3rd extended and revised edition. Wiesbaden: Springer VS.

Lankshear, C., & Knobel, M. (2008). *Digital Literacies: Concepts, Policies and Practices*. New York: Peter Lang Publishing.

Luhmann, N. (1989). *Ecological Communication*. Chicago: University of Chicago Press.

Luhmann, N. (1995). *Social Systems*. Stanford: Stanford University Press.

Luhmann, N. (2013). *Introduction to Systems Theory*. Cambridge: Polity Press.

Marx, K., & Engels, F. (2010). *Marx & Engels: Collected Works* (Volume 5). London: Lawrence & Wishart Electric Book.

May, H. (1985). *Arbeitsteilung als Entfremdungssituation in der Industriegesellschaft von Emile Durkheim bis heute*. Baden-Baden: Nomos Verlagsgesellschaft.

Menz, W. (2017). *Erweiterte arbeitsbezogene Erreichbarkeit Ausprägungen, Belastungen, Handlungsstrategien: Ergebnisse einer qualitativen Beschäftigtenbefragung des Projekts MASTER – Management ständiger Erreichbarkeit*. München: ISF München. Retrieved from http://www.isf-muenchen.de/pdf/Erweiterte_arbeitsbezogene_Erreichbarkeit.pdf

Middleton, C. A., & Cukier, W. (2006). Is Mobile Email Functional or Dysfunctional? Two Perspectives on Mobile Email Usage. *European Journal of Information Systems*, *15*(3), 252–260.

Mittelstadt, B. D., Allo, P., Taddeo, M., Wachter, S., & Floridi, L. (2016). The Ethics of Algorithms: Mapping the Debate. *Big Data & Society*, *3*(2).

Munzinger, P., & Anetzberger, M. (2015). Porsche entlässt Lehrling wegen Hetz-Kommentar. *Süddeutsche Zeitung*. Retrieved from http://www.sueddeutsche.de/politik/oesterreich-porsche-entlaesst-lehrling-wegen-hetz-kommentar-1.2581466

Nahles, A. (2016). Die deutsche digitale Agenda und gute Arbeit. In L. Schröder & H.-J. Urban (Eds.), *Gute Arbeit. Digitale Arbeitswelt – Trends und Anforderungen* (pp. 106–112). Frankfurt am Main: Bund-Verlag GmbH.

North, D. C. (1991). Institutions. *The Journal of Economic Perspectives*, *5*(1), 97–112.

North, D. C. (2005). *Institutions, Institutional Change and Economic Performance* (18th edition). Cambridge: Cambridge University Press.

O'Reilly, C. (2008). Corporations, Culture, and Commitment: Motivation and Social Control in Organizations. *California Management Review*, *50*(2), 85–101.

Pangert, B., Pauls, N., & Schlett, C. (2017). *Maßnahmen zur gesunden Gestaltung ständiger Erreichbarkeit: Ergebnisse und Bewertung der MASTER-Workshops*. Freiburg: Albert-Ludwigs-Universität Freiburg. Retrieved from http://www.erreichbarkeit.eu/images/Ergebnisbericht_0617.pdf

Park, R. E. (1921). The Social Organism and the Collective Mind. *American Journal of Sociology*, *27*(1), 1–21.

Park, R. E., & Burgess, E. W. (1921). *Introduction to the Science of Sociology*. Chicago: The University of Chicago Press.

Paul, F., & Suchanek, A. (1994). Entfremdung und Institutionen: Diskussionsbeiträge der wirtschaftswissenschaftlichen Fakultät Ingolstadt der Katholischen Universität Eichstätt. (44).

Popitz, H. (2017). *Phenomena of Power: Authority, Domination, and Violence*. New York: Columbia University Press.

PwC. (2014). *Health Wearables: Early Days*. New York: PricewaterhouseCoopers. Retrieved from https://www.pwc.com/us/en/health-industries/top-health-industry-issues/assets/pwc-hri-wearable-devices.pdf

Rockmann, K. W., & Northcraft, G. B. (2008). To Be or Not to Be Trusted: The Influence of Media Richness on Defection and Deception. *Organizational Behavior and Human Decision Processes*, *107*(2), 106–122.

Rosa, H. (2014). *Beschleunigung: Die Veränderung der Zeitstrukturen in der Moderne* (10th edition). Frankfurt am Main: Suhrkamp.

Rosa, H. (2016). *Resonanz: Eine Soziologie der Weltbeziehung* (2nd edition). Berlin: Suhrkamp.

Ross, E. A. (1896). Social Control. *American Journal of Sociology*, *1 (5)*, 513–535.

Schmidt, E., & Cohen, J. (2014). *The New Digital Age: Reshaping the Future of People, Nations and Business*. London: Murray.

Schneier, B. (2012). *Liars and Outliers: Enabling the Trust That Society Needs to Thrive*. Indianapolis: Wiley.

Seeman, M. (1959). On The Meaning of Alienation. *American Sociological Review*, *24*(6), 783–791.

Sinn, W. (2015). Digital-physische Transformation: Wie Unternehmen 'digicale' Strategien erfolgreich umsetzen. *Zeitschrift für Unternehmensentwicklung und Change Management*, *34*(3), 11–13.

Smith, A. (2000). *Theorie der ethischen Gefühle*. Frankfurt am Main: Georg Kurt Schauer.

Strobel, H. (2013). *Auswirkungen von ständiger Erreichbarkeit und Präventionsmöglichkeiten: Teil 1: Überblick über den Stand der Wissenschaft und Empfehlungen für einen guten Umgang in der Praxis*. Dresden: Initiative Gesundheit und Arbeit.

Suchanek, A. (2011). *Freiheit braucht Bindung*. Lutherstadt Wittenberg: Wittenberg-Zentrum für Globale Ethik.

Suchanek, A. (2015). *Unternehmensethik: In Vertrauen investieren*. Tübingen: Mohr Siebeck.

Sydow, J., Schreyögg, G., & Koch, J. (2009). Organizational Path Dependence: Opening the Black Box. *Academy of Management Review*, *34*(4), 689–709.

Tapscott, D. (2014). *The Digital Economy: Rethinking Promise and Peril in the Age of Networked Intelligence* (20th anniversary edition). New York: McGraw-Hill.

The Radicati Group. (2018a). *Anzahl der jährlich versendeten E-Mails (ohne Spam) in Deutschland in den Jahren 2000 bis 2017 sowie eine Prognose für 2018 (in Milliarden)*. Retrieved from https://de.statista.com/statistik/daten/studie/392576/umfrage/anzahl-der-versendeten-e-mails-in-deutschland-pro-jahr/

The Radicati Group. (2018b). *Prognose zur Anzahl der täglich versendeten und empfangenen E-Mails weltweit von 2018 bis 2022 (in Milliarden).* Palo Alto. Retrieved from http://de.statista.com/statistik/daten/studie/252278/umfrage/prognose-zur-zahl-der-taeglich-versendeter-e-mails-weltweit/

Urban, H.-J., & Ehlscheid, C. (2016). Gesundheit und Arbeitswelt – Perspektiven betrieblicher Präventionspolitik. In F. Knieps & H. Pfaff (Eds.), *Gesundheit und Arbeit. Zahlen, Daten, Fakten mit Gastbeiträgen aus Wissenschaft, Politik und Praxis* (pp. 293–297). Berlin: Medizinisch Wissenschaftliche Verlagsgesellschaft und BKK Dachverband e.V.

Weber, M. (1958). *The Protestant Ethic and the Spirit of Capitalism*. New York: Charles Scribner's Sons.

Witte, J., & Wendt, L. (2013). Mobbing beim ADAC? Ex-Vorstand spricht von 'Sumpf' beim ADAC in Niedersachsen. *Norddeutscher Rundfunk*. Retrieved from http://www.ndr.de/der_ndr/presse/mitteilungen/pressemeldungndr11929.html

Young, J. (2006). *The Exclusive Society: Social Exclusion, Crime and Difference in Late Modernity*. London: SAGE Publications Ltd.

Zuboff, S. (1988). *In the Age of the Smart Machine: The Future of Work and Power*. New York: Basic Books.

3. Digital Communication in and beyond Organizations: Unintended Consequences of New Freedom

Elisa Maria Entschew, Research Associate, HHL Leipzig Graduate School of Management, Jahnallee 59, 04109 Leipzig, Germany

An adapted version got accepted at the Journal of Information, Communication and Ethics in Society.

Abstract

Digital communication between humans promises diverse advantages in societal life, particularly in the workplace. One advantage is the creation of new freedom. The following statement reflects a common understanding of freedom, especially for young organizational members: 'I want to decide by myself what I want to do. I want to be free and independent from others'. This notion of freedom refers to two forms (independence and realizing choices) of a complex construct. If freedom is reduced to these two forms, newly forming expectations like permanent availability may be neglected by organizations and its members. To handle new freedom responsibly, one must consider the competence of moral discernment in organizations.

Key Words: Digital Communication, Freedom, Independence, Choice, Availability, Moral Discernment

Table of Contents

1. Introduction

1.1 What is the Problem?

Digital communication is about the conversion of analogue information[34] into digital information and the transmission and processing of digital information. In this paper, I mainly refer to communication via email, instant messaging services and social media channels enabled through tablets, smartphones, wearables[35] and the like. Devices like these have become an inherent part of working life (cf. Derks, Brummelhuis, Zecic, & Bakker, 2012, p. 80; Hassan, 2016, pp. 225, 236). Often, digital devices are used at all hours for work-related purposes (cf. Middleton & Cukier, 2006, p. 256).

It has to be noted that digital devices increasingly allow for ‘complete human communication’ (cf. Tapscott, 2014, pp. 137–138). This means that the four forms of information (data, text, audio, and video) can be exchanged via one multimedia system: Organizational members[36] in different parts of the world are able to exchange (at the speed of light) digital documents containing text, data, audio and video (cf. Tapscott, 2014, p. 138).

Digital communication enables increasing independence from time and space (cf. Harvey, 1990, pp. 240–307; Rosa, 2014, pp. 126–127). No distance or space needs to be bridged anymore in order to exchange information, as it is the case when using letters. Hence, faster communication is enabled. Based on that, new forms of independence are offered to organizational members, e.g., through the ability of working from anywhere, at any time (cf. Boswell & Olson-Buchanan, 2016, p. 593; Fenner & Renn, 2004, p. 184).[37] Seemingly, various technologies increase freedom of action by allowing organizational members to work beyond physical boundaries of the organization (cf. Khan & Agha, 2013, p. 16).[38]

---

[34] Information is understood as messages received and understood (redundancies are not included).

[35] Wearables are smart-digital devices that enable written and voice communications as well as continuous monitoring and alerts on personal (health) data while worn on or in the body (cf. PwC, 2014, p. 3; Tapscott, 2014, pp. 123–124).

[36] The term ‘organizational members’ includes managers and employees at non-managerial level (humans); the latter will be referred to as ‘employees’ throughout the article.

[37] I am considering jobs where this is possible. Of course, there are still jobs, where the organizational member needs to be physically present.

[38] This also constitutes a main challenge of writing this article: the blurring separation of private and professional life. The focus of the analysis is on professional relationships, although a clean separation is not always feasible due to the societal trend towards a blurring separation between work and private life. In this regard, it has to be noted that the

Hence, digitalization (of communication) offers more choices than ever before (cf. Suchanek, 2017a, p. 84). Choice is an important part of freedom (Schwartz, 2007, p. 99). A common understanding of freedom implies 'having choices' (cf. section 2.2). Such an understanding of freedom often refers to a lack of (being free from) limitations or obligations (cf. Schmid, 2008, pp. 210–211; Wood, 1995, p. 37). 'We do not call people 'free' on account of the specific use they make of their possibilities, but simply on account of the fact that they have them' (cf. Wood, 1995, p. 37). So, freedom relates to having diverse possibilities or choices (independence). At the workplace, 'having the choice' becomes more and more important. A study of Hewlett, Sherbin, and Sumberg (2009, p. 73) shows that 83 percent of the respondents clarify that the freedom to choose when and where to work motivates them to give 110 percent effort.

Yet, freedom also means realizing choices as well as abstaining from choices (cf. section 2.3 and 2.4). The purpose of this paper is to understand and interpret the meaning of freedom in relation to digital communication in professional relationships from a philosophical perspective. The problem to be analyzed refers to focusing on the previously addressed forms of freedom (independence and realizing choices). Mainly focusing on these forms of freedom encourages the negligence of one's temporal and social embeddedness (cf. Suchanek, 2015). Social embeddedness means that one person's actions influence the conditions and actions of others[39]. Further, organizational members are embedded within the temporal dimension, whereby individual or collective actions influence the conditions of action, which apply for future actions (temporal embeddedness).

The paper suggests that both dimensions of embeddedness play a distinct role in realizing actual freedom while both relate to a form of dependence on others. If empirical conditions and one's indispensable dependence on others are not sufficiently included in decision-

argumentation mainly focuses on the meso- (organization) and micro-level (organizational members), although social control and norms are also elements of the macro-level. Hence, I cannot deny influences from macro-level, such as societal norms or legal entitlements.

[39] Here, 'others' refers to other organizational members but also institutions. Institutions comprise formal rules (property rights, laws, constitutions, etc.) and informal constraints (conventions, taboos, traditions, social norms, customs, code of conducts, etc.) (cf. North, 1991, p. 97, 2005, pp. 3–9).

making, the subtle development of unintended (organizational) consequences for oneself and for others may go unnoticed.

1.2 Research Question and Procedure

The following research question guides the reader throughout the analysis:

RQ: In times of permanent connectivity, what are important forms of freedom in order to prevent unintended consequences?

The analysis addresses the following propositions (P):

P1. When focusing on freedom as independence and realizing choices, unintended consequences like expectations of permanent availability may develop.

P2. Training of moral discernment[40] *as well as implementing regulations on availability help to cope with availability expectations responsibly in times of permanent connectivity.*

The article starts with a theoretical examination of freedom based on the theory of philosopher Georg Wilhelm Friedrich Hegel (1986, 1991), with reference to Suchanek (2011, 2015), Rosa (2014), Schwartz (2007), Durkheim (1972, 1984) and others. I adopt an understanding of freedom, which is inspired by the Hegelian conception of freedom. Please note that I am not referring to Hegelian freedom in an exhaustive way. Rather, I follow selected notions of freedom and transfer them to the suggested problem statement. Hegel's (1986, 1991) theory dates from the time of the French revolution in the 19th century. The background idea of his theory was the stabilization of social order in times of revolutions and transitions. Admittedly, conditions of social order (and in this case, organizational order)

[40] Moral discernment describes the competence for reflection regarding 'good' decision-making, whereby a moral evaluation of actions and expectations is made which considers both the temporal and the social dimension. Solid moral discernment is a competence which is relevant for all organizational members in order to encourage responsible decision-making. Nonetheless, due to the overarching scope of responsibilities, the decision-making power as well as the role model function of managers, this competence is especially relevant for leadership positions.

look different in the 21st century. However, his perspective on freedom promises valuable insights; also or especially within the 21st century.

Subsequently, I examine freedom through digital communication in organizations. I build upon the theoretical insights of freedom and relate them to the example of working from anywhere, at any time. Through the example, I approach the suggested problem of the development of unintended consequences, specifically with regard to permanent availability. Based on the analysis, I derive the recommendation of institutionalizing training of moral discernment[41] and availability rules for organizational members as an approach to deal with potential unintended consequences of freedom through digital communication responsibly.

2. Freedom: A Theoretical Approach

2.1 Freedom: An Overview

The term of freedom is used very often when promoting advantages of digital communication (cf. Hampton, 2016; Hewlett et al., 2009, p. 73; Middleton & Cukier, 2006; Rosa, 2014, pp. 126–127; Schmidt & Cohen, 2014, pp. 3, 15–16). Although the term is widely used, its meaning is not always clear. By focusing on the Hegelian conception of freedom, it is my aim to make this complex and widely used term accessible to the reader.

Hence, the second section is dedicated to the theoretical examination of freedom through (cf. Hegel 1986, 1991)

1. abstraction
2. subjectivity and

[41] While everybody is equipped with moral discernment, the level of training is the decisive factor influencing the ability to really do 'the right thing' as well as avoid doing bad things (cf. Suchanek, 2015). It has to be noted that, despite the significance of this competence, moral discernment is a rather elusive construct. It can be understood as 'profound intuition' which depends on 'lifelong learning' as well as gathering and reflecting upon personal experiences. For this reason, the theoretical explanation of moral discernment and the recommendation regarding specific training of moral discernment contained in this article are too narrow a scope for reality. Grasping the whole meaning of moral discernment via specific training and concepts does not suffice in order to achieve its ambitious claim of doing 'the right thing' or avoiding bad.

3. embeddedness.

The figure below provides an overview of these three forms of freedom and their practical embodiments. The subsequent explanations give the reader a better understanding of this overview. In section 3 particular examples will be developed referring to the overview of figure 5.

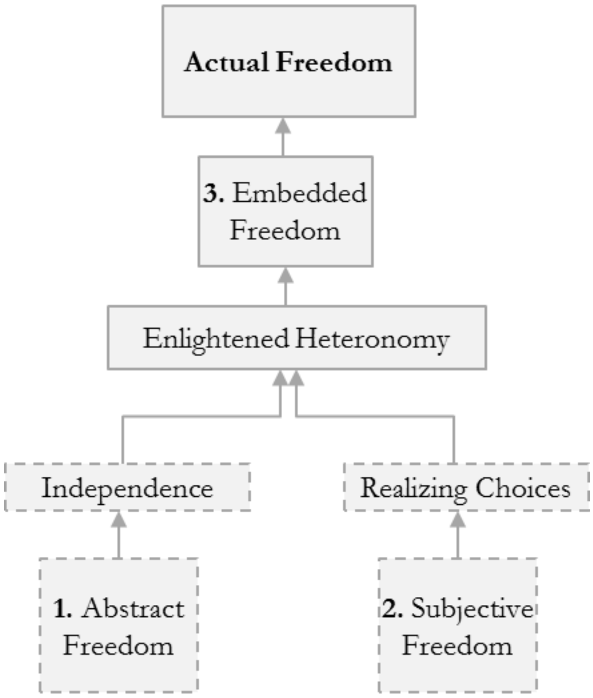

Figure 5: Actual Freedom based on Abstract, Subjective and Embedded Freedom (Source: Own illustration based on Hegel, 1986, 1991)

Following Hegel (1986, 1991), all three forms are important parts of freedom and build on one another. The first two forms are part of actual freedom but neither the first nor the second form can be deemed as actual freedom on its own. The third form of freedom approaches actual freedom through acknowledging one's dependence on others (enlightened heteronomy).

I do not claim to fully grasp the construct of freedom. Nonetheless, I aim to reconstruct a widely used understanding of freedom and why it needs to be complemented with the acknowledgement of one's actual dependencies, especially in times of digital connectivity.

2.2 Abstract Freedom and Independence

Generalizing something is the act of thinking and reflecting (cf. Hegel, 1986, p. 47, 1991, p. 35). Pure thinking refers to abstracting from any empirical conditions, including desires (cf. Hegel, 1986, pp. 49–50, 63, 1991, pp. 37–38, 45; Wood, 1995, p. 37). In other words, one is free from empirical conditions. '[Hegel's] view is that though our desires may determine what we in fact do, they in no way limit what we can do' (Wood, 1995, p. 37).

Abstract freedom is the ability to choose either one thing or another (cf. Wood, 1995, p. 37). This form of freedom refers to having choices (cf. Arlt, 2017, p. 1; Crawford, 2016, pp. 35, 120–121; Foerster, 1993, p. 49; Rosa, 2003, p. 13, 2016, pp. 16–19, 40–41; Schwartz, 2007, p. 99), namely being presented with more than one option (cf. Wood, 1995, p. 37). It does not refer to realizing choices.

Indeed, from the standpoint of abstract freedom, every form of particularity or commitment[42] is seen as a threat to the general possibilities immediately given as a right. For instance, advocates of abstract freedom regard particularity – in the form of social roles and corresponding expectations with regard to one's commitments – as alien to one's true selfhood because being particular limits a self to a set of commitments at the expense of a general right to other possibilities (cf. Wood, 1995, p. 38). That is why these advocates 'flee from every content as a restriction' (Wood, 1995, p. 38).

Hegel (1986, p. 50, 1991, p. 38) makes it clear that this notion of freedom remains purely theoretical. If it were to become reality, it would destroy every form of organization (cf. Hegel, 1986, p. 50, 1991, p. 38). Since any form of particularity is seen as a threat, even in the form of institutions, any form of dependence would be rejected. Organizations are based on dependency. Therefore, the fundamental pre-requisite condition for organizations would be rejected.

[42] Realizing a choice is a commitment.

This is confirmed by the contemporary philosopher Wilhelm Schmid (2008, p. 210), who describes modern freedom as a tragedy because humans are not able to live when being perfectly free from commitments and relationships.

For instance, organizational members would perceive their organizational roles as a deprivation of freedom. Based on their organizational roles, they are supposed to comply with distinct norms in order to enable cooperation.

Any form of heteronomy would be seen as a threat. However, in a society which is based on the division of labor, following such an abstract notion of freedom is not viable. It is natural for organizational roles to be based on distinct dependencies.

If organizational members stay on the abstract level of freedom, imprudent judgment is highly probable. Even if the intention would be to improve current conditions, this intention cannot derive the means to effect these conditions and what they should actually look like, since the derivation remains on pure abstract notions and a neglect of empirical conditions (cf. Hegel, 1986, p. 50, 1991, p. 38).

As a result, this notion of freedom can only be one part of freedom (cf. Hegel, 1986, p. 51, 1991, pp. 38–39). If this unilateral notion of freedom obtains priority in decision-making, one would encounter a problem with instituting effective change (cf. Hegel, 1986, pp. 51–52, 1991, p. 39).

The French revolution is given as an example: The public destroyed its existing institutions to allow for the revolutionary possibilities of a new society (cf. Hegel, 1986, p. 52, 1991, p. 39). However, their judgments remained purely on the abstract level whereby every form of particularity was rejected, thus every form of institution was rejected (cf. Hegel, 1986, p. 52, 1991, p. 39). No form of societal structure would have been accepted. Abstract freedom does not refer to an actual being. In a certain sense, independence is part of abstract freedom. If I want to be independent from others, I want to remain purely abstract. I do not want to be determined by others.

Surely, independence is rather a psychological motive referring to desires like not being vulnerable or to be in control. Nevertheless, in professional relationships (and in general, in societies based on the division of labor), dependence on others cannot be denied. Dependence is always combined with vulnerability and a certain loss of control.

As stated at the beginning of this section, abstract freedom only refers to having possibilities (cf. Hegel, 1986, p. 61, 1991, p. 44). Possibility is not reality (cf. Hegel, 1986, p. 65, 1991, p. 47). Only through choosing can humans enter reality (cf. Hegel, 1986, p. 65, 1991, p. 47).

2.3 Subjective Freedom and Realizing Choices

Subjective freedom refers to realized choices which are conscious, reflective and explicitly chosen by the human; in contrast to choices which were selected unreflectively, habitually or from coercion (cf. Hegel, 1986, pp. 341–342, 1991, p. 222; Wood, 1995, p. 38). This notion of freedom involves choices that address one's 'reflective interests in seeing our chosen plans and projects carried successfully to completion' (Wood, 1995, p. 38).

While the first form of freedom remains purely abstract, the second form of freedom remains purely particular. It is about determining oneself and being with oneself. This involves self-commitment with regard to one's desires and interests (ego). In particular, subjective freedom means realizing choices as one pleases.

Organizational members have a positive outlook on subjective freedom for valid reasons. They realize a variety of attractive choices while perceiving this as great freedom, at least in the short-term. This can be explained by two values of realizing choices per se.

Realizing a choice has a strong instrumental value; it allows organizational members to do what they want in life (cf. Schwartz, 2007, p. 99). The second value Schwartz (2007, p. 100) identifies is called expressive value, meaning that via choice, they communicate their identity including who they are and what they care about.

This is similar to Hegel's (1986, 1991) understanding of subjective freedom. The conception of oneself determines one's choices; at the same time, these choices express one's subjectivity (cf. Hegel, 1986, pp. 228–229, 233, 1991, pp. 149–150, 151; Wood, 1995, p. 51). Therefore, we can only be with ourselves in our actions if we achieve subjective freedom (cf. Wood, 1995, p. 51).

Commonly, humans think that they are free when they can ‘randomly' decide what they want to do (cf. Hegel, 1986, p. 67, 1991, p. 49). But it is this random decision-making which constitutes the state of not being free because the decision is instead determined by arbitrary impulses and circumstances rather than a will (cf. Hegel, 1986, p. 67, 1991, p. 49).

Because one's desires and other current empirical conditions are given, they determine one's decisions resulting in a state of not being free (cf. Hegel, 1986, p. 68, 1991, p. 49). Although, when one is personally free to do whatever one wants to do, this self-centered freedom might actually be conditioned by the random circumstances the person is shaped by, revealing the person to instead be bound by one's own desires and impulses rather than free.

Hegel (1986, p. 341, 1991, p. 222) compares subjective freedom with arbitrary decisions and subjective pleasure. It is about following one's direct desires and needs whenever they come up. Hence, self-commitment is fully determined by one's subjective ego (cf. Hegel, 1986, p. 341, 1991, p. 222). Using freedom equivalently to doing as one pleases can only be interpreted as a lack of education with regard to the construct of freedom (cf. Hegel, 1986, p. 66, 1991, p. 48). This element is part of actual freedom (cf. Wood, 1995, pp. 39, 52). Nevertheless, as it is the case for the first notion of freedom, viewing it as the full notion of freedom may lead to imprudent decisions. Deciding according to one's direct desires solely focuses on the current time unit. Hence, it neglects possible consequences of later time units (cf. section 3.4.1). It excludes temporal embeddedness and with that, long-term decision-making. At the same time, this perspective neglects social embeddedness, since decisions are solely based on oneself. Other humans, specifically organizational members, might not be taken into account sufficiently.

It has been argued that abstract freedom and subjective freedom are too reductionist of perspectives if they are to function as stand-alone perspectives on freedom. In fact, we need both perspectives. Both function as a necessary condition for – what I call – embedded freedom (cf. Hegel, 1986, pp. 71–75, 1991, pp. 52–55). I intentionally abstain from following Hegel's (1986, 1991) notion of 'absolute freedom' since it is a more complex construct than what I will describe.

For the analysis of understanding freedom with regard to digital communication, my use of embedded freedom is sufficient. Thus far, what is missing in both abstract and subjective freedom has not been explicitly explained. This point can be expanded upon as the notion of 'embeddedness'.

Embeddedness includes an organizational member's social and temporal (inter)dependencies. Because of the division of labor, possibilities increase, so do one's (inter)dependencies (cf. Durkheim, 1997; Gerecke, 1998, pp. 16–17).

Future conditions and one's indispensable dependence on others are not sufficiently included in decision-making when solely focusing on abstract and subjective freedom. Rather, both perspectives need to be extended by embeddedness.

2.4 Embedded Freedom and Enlightened Heteronomy

The idea of embedded freedom can be approached through the concept of enlightened heteronomy. Enlightened heteronomy means that I acknowledge my dependence on others. In a networked society, based on the division of labor – and more generally as an empirical being –, we are inevitably heteronomous to some extent.

For instance, if I am employed, I am systematically influenced by specific (organizational) expectations. Or, when using digital devices for work, I am dependent on the functionality of these devices in order to use them for my work. In addition, these circumstances are only possible because other humans worked on them in earlier time periods.

My actions are based on conditions which I may want to preserve (cf. Suchanek, 2017b). All these dependencies provide us with new choices. Acknowledging temporal embeddedness includes one's origins as well as one's future.

Organizational members have to acknowledge the dependence of their own freedom (to choose) on the freedom of others. It is about embedding one's direct needs in a broader (organizational) context.

This implies an intersubjective understanding: An organizational member interprets its own freedom by recognizing the freedom of others, i.e., what do others want and expect? Hegel (1977, p. 110) describes it as follows: "'I' that is 'We' and 'We' that is 'I'.'

If we realize this, we are 'with ourselves in others', more specifically, we are free when we are performing our duties (cf. Hegel, 1977, pp. 145–146; Wood, 1995, p. 50). A key point of enlightened heteronomy as embedded freedom is that duties – and with that organizational expectations – are not seen as restrictions; instead, these duties liberate me (cf. Hegel, 1986, pp. 302–305, 1991, pp. 195–197; Wood, 1995, p. 50).

Rights, rules and duties are what enable us to approach actual freedom (cf. Wood, 1995, p. 50). Nonetheless, the liberation through duties and rules is only possible if two conditions are met:

1. Duties and rules need to be arranged in a way that organizational members as empirical beings and their right to actual freedom are considered. At the same time, duties and rules need to be designed in a way that the freedom of all actors is considered and coordinated, since the freedom of one organizational member is to be interpreted in relation to the freedom of other organizational members. This can be described as the functional facilitation of freedom.

2. This functional facilitation of freedom needs to be understood by the respective actors. Actors also need to be able to identify with this concept of freedom. If that is the case, an organizational member is able to identify with rules and duties. Rules and duties need to be incentive compatible (cf. Homann, 2014; Suchanek, 2015). That implies that organizational members subjectively perceive an adequate reflection of their own interests within these duties and rules in order to comply with them. This can be described as the subjectively perceived identification with duties and rules.

However, it is hard and often impossible to uphold these conditions. Especially regarding the second one, it is difficult to realize that everybody who is subject to duties and rules can also identify with them. Hence, these two requirements should be understood as ideals which are to be upheld, but which cannot necessarily be realized, strictly speaking.

If both requirements are to be upheld (the functional facilitation of duties and the subjective identification with duties), the randomness of capricious impulses ('Willkür') can be avoided and actual freedom can be approached. Otherwise, we would only act according to our natural desires, which is tantamount to short-term decision making (cf. Wood, 1995, p. 50).

Duties regarding our social and organizational roles are indispensable to the fulfillment of ourselves. Fulfilling duties makes us free. Only through the fulfillment of duties do we actualize ourselves as part of our system of cooperation and the division of labor (Wood, 1995, p. 50). In other words, consciously complying with (organizational) expectations enables us to approach actual freedom. Again, this should be interpreted as an ideal which is to be upheld, but which cannot necessarily be realized, strictly speaking. Nonetheless, actual freedom requires commitment (cf. Suchanek, 2011).

Further, we do not approach actual freedom if we are forced to comply with duties in the form of organizational expectations (whether through a boss' power or more subtly through social pressure) (cf. Wood, 1995, p. 51). It needs to be one's reflective decision based on one's (moral) conviction.

Organizational members are empirically embedded in diverse cause and effect relationships of their organizational world. An understanding of one's dependencies and constraints is a basic part of actual freedom. Hegel's claim in his philosophy of right is to provide sufficient knowledge to understand what we do (cf. Hegel, 1986, pp. 245–250, 1991, pp. 158–161; Wood, 1995, p. 51). Transferring this to organizations, it is a necessary condition that organizational members have sufficient knowledge in order to understand their organizational dependencies.

First, organizations need to provide sufficient knowledge. Second, organizational structures need to account for subjective interests sufficiently (subjective identification). Otherwise, the organization is doomed to failure. If organizational members are not able to identify with organizational structures, they will not act in the interest of the organization.

So, enlightened heteronomy is only possible if organizational members are able to understand their dependencies and if their interests (subjective freedom) are sufficiently mirrored in these dependencies. If that is the case, organizational members are able to reconcile with the dependencies of their organizational reality (cf. Hegel, 1986, 1991). Émile Durkheim (1972, 1984) confirms this with his concept of ‘enlightened consent’ (‘aufgeklärte Zustimmung’, own translation). Organizational members become free if they are able to understand their embeddedness by self-reflection (cf. Durkheim, 1972, pp. 108–109, 1984, pp. 161–163).[43] This means to understand and assess possible choices with regard to social and temporal restrictions.

It is about committing oneself in relation to others, while being aware of one’s interests (cf. Hegel, 1986, p. 57, 1991, p. 42). Therefore, in distinction from subjective freedom, self-commitment does not only take one’s interest and desires into account but also the interests and desires of others.

This thought can also be found by Marx and Engels (1972, p. 83) who underline the necessity of ‘others’ for actual freedom. Actual freedom can be understood as viable co-existence (cf. Han, 2016, p. 12, own translation), or the reciprocal acknowledgement of the interests of and dependencies on others.

At the same time, future conditions of action are taken into account when deciding on choices. Actual freedom does not always mean doing as one pleases in the current time unit. It rather means investing into social relationships and future time units (cf. Suchanek,

[43] It may seem that Hegel (1986, 1991) and Durkheim (1972, 1984) adopt a rather unreflective position, since their priority is the sufficient understanding and acknowledgement of the status quo. However, it is their aim to warn one from making hasty conclusions, which may lead to a destruction of the social structure. Durkheim (1972, p. 110, 1984, p. 161) points out that it is not about passively accepting. Enlightened consent implies sufficient knowledge of the situation. This is imperative for an organizational member to be able to acknowledge their position in the organizational structure. Instead of making hasty conclusions about social changes, the reality, and thus the function of duties and rules, should be sufficiently understood (cf. Hegel, 1986, pp. 26–27, 1991, pp. 21–22). Otherwise, one runs the risk of undermining essential social assets, e.g., the reliability of mutual expectations - a fundamental function of rules – may be compromised. Reconciliation with reality and enlightened consent do not exclude constructively reflecting on organizational rules. However, they distance themselves from premature conclusions, which seeks to simply overthrow the social system.

2017b). This may also involve abstaining from an attractive choice in the short-term in order to maintain attractive choices in the long-term (cf. Schwartz, 2007, pp. 222–224).

To summarize, abstract freedom implies that I am able to do whatever I want. Subjective freedom implies that I do whatever I want to do. As explained, this view needs to be ascended: I do what I want to do based on reflection of what others want to do; my freedom is relativized where the freedom of others starts.

Let me illustrate this with a simple, unrelated example: smoking. Abstract freedom means being able to do as one pleases. Hence, I have the ability to smoke anywhere at any time. Following subjective freedom implies doing as one pleases. Hence, if I want to smoke, I do so here and now. Nobody should restrict me. I do not think about how my actions affect others (embeddedness).

First of all, I am neglecting the right of other humans to breathe fresh air. These humans are not free to exercise their subjective freedom because I force them to breathe the polluted air through my smoke. Also, I am neglecting potential negative consequences of my subjective freedom in later time periods.

Following embedded freedom implies that I am aware of the potential consequences when choosing to smoke. This is enabled through education with regard to the topic (e.g., warning signals on the cigarette package imposed by the state). Also, I am acknowledging restrictions set by authorities protecting non-smokers from my smoke. Through this, I become free through committing myself with regard to my own interest (having a cigarette) while also committing myself with regard to the interests of others (having a cigarette in a designated smoking area).

3. Digital Communication and Freedom

3.1 New Freedom through Digital Communication

The third section is dedicated to illustratively clarify new freedom through digital communication. The three theoretical forms of freedom are transferred to the example of working from anywhere at any time. In that regard, freedom often refers to more independence and choice (cf. Hampton, 2016; Hewlett, Sherbin, & Sumberg, 2009, p. 73; Rosa, 2014, pp. 126–127; Schmidt & Cohen, 2014, pp. 3, 16).[44]

Digital communication technologies allow organizational members to work with fewer restrictions from time and space (cf. Khan & Agha, 2013, p. 16). It is possible to work 24 hours per day from anywhere. Indeed, new forms of independence are offered through being able to choose where, when, and how to work. Based on that, organizational members may subjectively choose to (this is not an exhaustive list):

- work from home (or in a café, park, library, train, plane, etc.).
- work and go on holiday simultaneously (e.g., switching one's home office or mobile office to a rented house that is equipped with internet)
- work and travel simultaneously (digital nomads[45]).

A study on value orientation of Generation Y[46] regarding the ideal workplace in the German-speaking area gives further indication of what is understood by freedom (cf. Lewe & Pfeil, 2014a, p. 3, 2014b, p. 5): 92.5 percent of the students surveyed indicated that self-determination is important to them. The understanding of self-determination is described as follows: 'It is important to me to decide by myself what I want to do. I want to be free and independent from others' (Lewe & Pfeil, 2014a, p. 3, 2014b, p. 5, own translation).

A second understanding of self-determination (75 percent of the students surveyed indicated that this is also important to them) is described as being able to develop own ideas

[44] Certainly, there are other forms of freedom, e.g., free movement of information (cf. Schmidt & Cohen, 2014, pp. 39–47). Indeed, humans have access to diverse search engines and social media platforms enabling access to global information. However, since individualized, nontransparent algorithms (cf. Hamilton, Karahalios, Sandvig, & Eslami, 2014) influence the results of an Internet search as well as the news feeds on social media platforms, the access to information is determined according to one's interests and opinions. This leads to the problem of self-referentiality: the reproduction of own opinions and interests (cf. Luhmann, 1995, pp. 37–38, 1989, p. 145; Böldicke & Erfurt Sandhu, 2017, p. 57). These phenomena are worth mentioning based on their influence on human communication. However, analyzing those would go beyond the scope of this article.

[45] Digital nomads pursue freedom; they are independent from time and space regarding their work (cf. Makimoto & Manners, 1997). They are freelancers and mainly work as consultants, bloggers or marketing experts while travelling to different locations around the globe.

[46] Generation Y is characterized as the workforce that was born after 1980; they grew up with the internet and digitalization. Organizations increasingly report challenges in adequately addressing this generation as organizational members (cf. Lewe & Pfeil, 2014b, p. 2).

as well as to work in one's own way (cf. Lewe & Pfeil, 2014b, p. 5). When imagining the perfect work situation, 62 percent indicate that self-determined working is important instead of getting clear-cut work instructions (cf. Lewe & Pfeil, 2014a, p. 12, 2014b, pp. 22–23,). All these understandings of self-determination refer to 'having the choice'.

The study of Hewlett, Sherbin, and Sumberg (2009, p. 73) on Generation Y confirms the focus on 'having the choice'. 'Having the freedom to choose when and where to work is very powerful' (Hewlett, Sherbin, & Sumberg, 2009, p. 73). 83 percent of the respondents clarify that this freedom motivates them to give 110 percent effort (cf. Hewlett, Sherbin, & Sumberg, 2009, p. 73).

The previously introduced forms of freedom are transferred to this contemporary understanding of freedom and related to freedom through digital communication. The figure below provides an overview of the three forms of freedom and the relevant examples regarding digital communication.

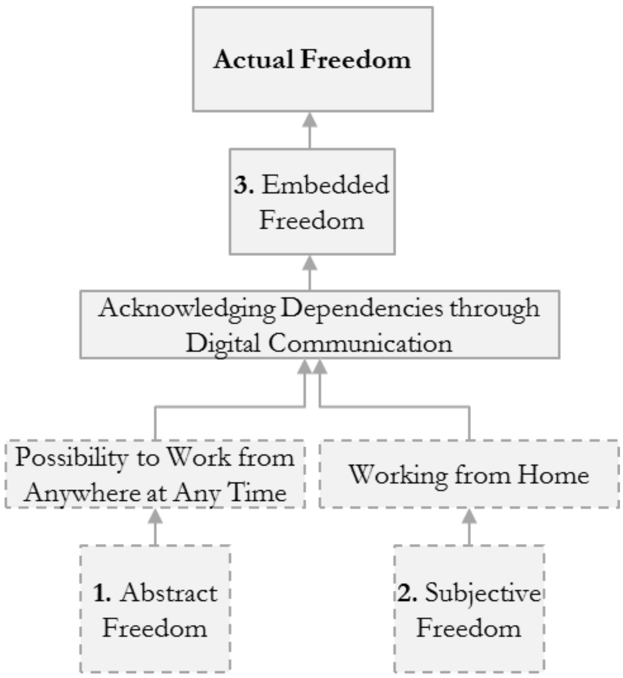

Figure 6: Actual Freedom with Regard to Digital Communication (Source: Own illustration based on Hegel, 1986, 1991)

3.2 Abstract Freedom: Possibility to Work from Anywhere at Any Time

As has just been delineated, especially young organizational members value freedom in the form of 'having the choice'. This can be classified as abstract freedom as was explained in section 2.2. Abstract freedom is the ability to choose either one thing or another (cf. Wood, 1995, p. 37). Though our empirical conditions influence what we in fact do, they do not restrict what we are able to do (cf. Wood, 1995, p. 37). In other words, 'everything is possible'. In particular, organizational members are theoretically able to choose almost every conceivable location (with an internet connection) as their workplace (cf. figure 6).

This perspective remains theoretical. Actual decision-making cannot be based on this perspective. Any form of dependence or heteronomy would be rejected if abstract freedom guides decision-making. However, it is conceivable that young organizational members who value independence and 'having the choice' are well aware that this is a purely abstract notion; a process of reflection on possibilities. Surely, in professional relationships dependence on others is an inherent empirical condition. It can be assumed that this is widely accepted among a majority of organizational members.

Recapping, 'having the choice' remains on the theoretical level; it is a process of reflection. Only through choosing do organizational members leave the world of pure abstraction and enter reality (cf. Hegel, 1986, p. 65, 1991, p. 47).

3.3 Subjective Freedom: Working from Home

Subjective freedom refers to realized choices which are conscious, reflective and explicitly chosen (cf. Hegel, 1986, pp. 341–342, 1991, p. 222; Wood, 1995, p. 38). Although the previously delineated understandings of self-determination mainly referred to 'having the choice', the actual self-determination happens through making specific choices. An example of a realized choice may be the (reflective) decision of an organizational member to work from home (cf. figure 6) or from a holiday resort. Subjective freedom allows organizational members to do what they want (cf. Schwartz, 2007, p. 99).

Via choice, organizational members communicate their professional identity including who they are and what they care about (cf. Schwartz, 2007, p. 100). For instance, if an organizational member freely chooses to work from home and to directly react to digital messages, she[47] is rather a productive organizational member.[48] According to Hegel (1986, p. 341, 1991, p. 222), subjective freedom means that self-commitment is mainly determined by the (subjective) ego (e.g., doing everything possible in order to fulfill one's desires, even at the expense of others). Hence, the self-commitment of working from home and being available almost permanently is mainly based on one's own desires like aiming at a productive professional identity.

Further, identifying one's actual desires becomes challenging: Subtle social controls through digital communication may influence an organizational member's desires in a latent way (cf. Entschew & Suchanek, 2017, pp. 352–355, 359–361). Social controls, which are often based on social norms or conventions, are understood as implicit agreements among organizational members about what constitutes adequate behavior. While assuming that the choice of being available at home is reflective, it may be influenced through social control forces, which were not reflected upon. With social control, organizational members perceive great freedom, while they actually comply to a high degree to organizational expectations (cf. O'Reilly, 2008, p. 88).

The next section is dedicated to discuss possible consequences of focusing on abstract and subjective freedom while not acknowledging one's organizational dependencies through digital communication.

3.4 Embedded Freedom: Acknowledging Dependencies

3.4.1 The Risk of Overcommitment

Subjective or abstract freedom should never be interpreted as actual freedom on their own. If organizational dependencies are not acknowledged by focusing on abstract and subjective freedom, organizational members may 'overcommit'[49] to their professional role based

[47] For reasons of readability, I omit gender differentiations. Corresponding designations always apply to all genders for the sake of equal treatment.

[48] I am referring to organizational cultures acknowledging and incentivizing such behavior.

[49] There may be cases of 'undercommitting' which are relevant for organizations too. However, this goes beyond the scope of this paper.

on a growing sense of responsibility within that organization. When 'having the choice' where and when to work, organizational members have to manage valuable choices (e.g., 'When exactly should I work?' 'Shall I respond immediately to digital messages?' 'Should I be (digitally) available during weekends?' 'Should I check my email account after the end of the work day?' In general, 'What is the right thing to do?').

'Things could always be otherwise, if only we choose otherwise' (Cederström & Spicer, 2015, p. 22). According to organizational researchers and sociologists, organizational members tend to think like free entrepreneurs[50] (cf. Cederström & Spicer, 2015, p. 22; Ehrenberg, 2010, pp. 7–9; Salecl, 2011, p. 5). Thinking like free entrepreneurs involves a growing responsibility of organizational members (cf. Cederström & Spicer, 2015, p. 22; Han, 2016, p. 18; Ehrenberg, 2010, pp. 7–9).

While this growing responsibility may be perceived as an increase in (abstract and subjective) freedom, organizational members have to learn to deal with it. If no rules and no training exist, the risk of 'overcommitting' occurs (cf. Sullivan, 2014, pp. 1, 7).[51] A typical example of 'overcommitting' is to be available for organizational purposes 24 hours a day (cf. section 3.4.2). This implies an 'overcommittment' regarding the professional role, because other private roles are pushed into the background (cf. section 3.4.3).

'[...] the availability of many attractive options means that there is no longer any excuse for failure' (Schwartz, 2007, pp. 136–137). Even if (or especially if) this might not be recognized, this is accompanied by high social pressure for organizational members (cf. Cederström & Spicer, 2015; Ehrenberg, 2010; Schwartz, 2007).

The French sociologist Alain Ehrenberg (2010, p. 9) suggests a connection between the societal expectation of being free entrepreneurs and the increasing number of depression cases. Also Rosa (2016, p. 14) sees a connection between the increasing number of stress

[50] Agile ways of managing organizations reflect this perspective of being free entrepreneurs. Organizational members self-organize their projects and carry more responsibility. Self-determination increases. By this, processes are accelerated and more flexible; an intended consequence of the organization (cf. Atkinson & Moffat, 2007).

[51] There may be cases of 'undercommitting' which are relevant for organizations too. However, this goes beyond the scope of this paper.

disorders like burnout or depression and the pressure for continuous optimization of one's choices.

Between 2004 and 2016, the number of sick days in Germany due to burnout increased from 4.6 days to 75 days (cf. BKK Dachverband, 2017). Although there seems to be a connection between stress disorders and the permanent demand of optimizing available choices, the assertion of a causal relationship needs further evidence.

However, if organizational members perceive an overload of choices, they may unintentionally remain on the level of abstract freedom. Choices may increase in a way that organizational members feel overwhelmed and not able to cope with deciding between them anymore (cf. Schwartz, 2007, p. 104). Instead of 'everything is possible' a state of 'nothing is possible' may develop (cf. Ehrenberg, 2010, p. 9).

That is why organizational members may be trained to deal with the responsibility of 'having the choice', in order to not get stuck on the level of abstract freedom (cf. section 4). For instance, it can be trained to be selective to prevent escalations of this type of burden. Sometimes, this also means not realizing an attractive choice (writing emails on weekends) today in order to maintain attractive choices in future time units (unavailability on weekends) (cf. Schwartz, 2007, p. 104). However, this necessitates acknowledging one's temporal and social dependencies (cf. figure 6, e.g., increased expectations or social pressure due to increasing abstract and subjective freedom).

3.4.2 A Scenario with respect to Permanent Availability

Seemingly, subjective or abstract freedom should never be interpreted as actual freedom on their own. Otherwise, unintended consequences are highly probable. Both perspectives need to be considered and aimed towards actual freedom. The ascent towards actual freedom is possible through acknowledging one's organizational embeddedness. This is neither part of abstract nor subjective freedom. However, it is important in order to deal with the new freedom which digital communication offers responsibly.

When organizational members more or less freely choose to work from home and directly respond to digital messages regularly, they are embedded in the organizational context, including dependencies in the form of expectations. Expectations may rise: 'Like the mechanical rabbit at the dog-racing track that speeds along just ahead of the dogs no matter how fast they run, aspirations and expectations […] speed ahead of their realization, no matter how liberating the realization [of choice] becomes' (Schwartz, 2007, p. 104). A similar metaphor is used by Gronemeyer (2014, p. 104) by referring to a racing dog with a sausage attached in front of the nose in order to be motivated for best performance.

If I freely decide to work from home, it potentially changes the expectations towards my availability, as well as the availability of other organizational members in later time units (cf. Entschew & Suchanek, 2017, pp. 352–355). This new possibility should be used reasonably, since new expectations on availability are built interactively (cf. Entschew & Suchanek, 2017, p. 354; Sydow, Schreyögg, & Koch, 2009, p. 700). Especially managers need to use it reasonably, as they are acting as role models and (partially implicitly) influence the expectations on availability.

If – for instance – a manager is sending emails after the end of the working day on a regular basis, pressure develops on the side of the employees to directly work on these emails.[52] In some situations, it might be reasonable to abstain from an email outside office hours (abstaining from an attractive choice in order to avoid the development of an availability demand in future time units).

In fact, organizational members tend to reply to work-related digital messages at night or on holidays (cf. Derks, Brummelhuis, Zecic, & Bakker, 2012, p. 82; Middleton & Cukier, 2006, p. 256). Relating thereto, using communication devices encourages working overtime (cf. Derks, Brummelhuis, Zecic, & Bakker, 2012, p. 82; Galinsky, Kim, & Bond, 2001, p. 8). Part of the problem is that quickly answering some emails outside office hours seems rather trivial and therefore, unintended consequences may not be identified (cf. Derks,

[52] I am not referring to exceptional behavior. There are conditions in which an email or a slack ping after working hours is necessary or adequate, especially in management positions. I am focusing on the subtle development to the normal state (a new social norm) as a potential risk.

Brummelhuis, Zecic, & Bakker, 2012, p. 82). Such subtle changes through digital communication often stay unnoticed.

At the beginning, working from home is a more or less subjectively free choice; but, it can lead to an implicit availability demand (cf. Entschew & Suchanek, 2017, pp. 354–355; Menz, 2017, p. 22). Hence, the choice to be available might subtly lead to an availability norm as an adapted expectation (cf. figure 7).

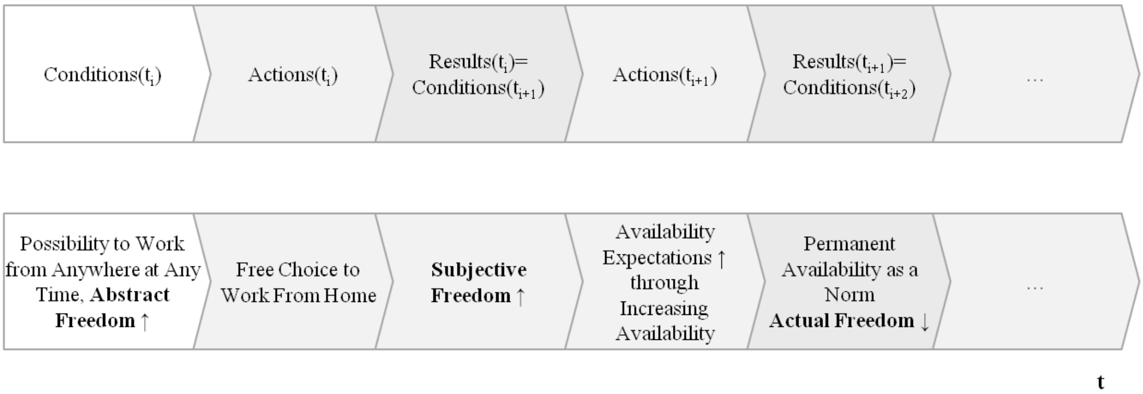

Figure 7: Permanent Availability as a New Organizational Norm (Source: Own illustration based on Suchanek, 2015, pp. 132, 220)

Figure 7 shows a general concept of temporal embeddedness (cf. the upper part of figure 7). Time is one of the fundamental conditions that are shaping human actions (cf. Suchanek, 2015, p. 132). Today's conditions of actions are the result of the past. These conditions enable and restrict our today's actions. Simultaneously these actions lead to specific results. Inevitably this also frames the conditions of future actions.

The lower part of figure 7 provides the potential development of an availability norm as an adapted expectation based on a strong focus on abstract and subjective freedom. If only abstract freedom and subjective freedom are taken into account, organizational members focus on possibilities and direct desires. This implies a reductionist perspective based on a finite concept of time. As a result, the development of future conditions like an organizational norm of permanent availability goes unnoticed. Hence, organizational expectations are changing, and organizational members who are not committing to the behavior are rather exposing themselves to the risk of falling behind as stigmatized outsiders (cf. Kulik, Bainbridge, & Cregan, 2008; Luhmann, 2007, p. 156; Rosa, 2003, p. 11).

An availability norm would relativize the values of abstract freedom, since an availability demand would decrease the number of possibilities respectively ‘having the choice’. It would also relativize the values of subjective freedom, since an availability demand is not a ‘subjectively free’ choice anymore. The choice to be available or not gets out of control for organizational members (cf. Derks, Brummelhuis, Zecic, & Bakker, 2012, p. 82). They may still ‘freely’ decide where they work, but they increasingly lose the power to decide when they work; they are ‘always on’. Hence, actual freedom (including abstract, subjective and embedded freedom) potentially decreases.

That is why approaching actual freedom through embedded freedom also comprises of not always doing what one pleases on the first glance. We need to be aware that our actions today influence our conditions tomorrow. Indeed, the choice to immediately answer on emails implies productivity. However, this decision needs to be embedded into the temporal and social context in order to consider potential unintended consequences like permanent availability. Embedding one’s direct impulse in a broader context is an important part of actual freedom.

3.4.3 Permanent Availability: Permanent Inter-Role Conflicts

For some organizational members, it is difficult or impossible to be available permanently as it conflicts with other commitments such as family responsibilities or community work. Such inter-role conflicts (organizational role versus family role versus community role) occur if there are role expectations placed upon a human, such that compliance with one role expectation (permanent availability) makes compliance with the other role expectation (quality time within family or community) difficult (cf. Greenhaus & Beutell, 1985, pp. 76–78; Katz & Kahn, 1978, p. 204).

This becomes a decisive problem if an organization becomes greedy. An organization is greedy if it (implicitly) requests undivided commitment of its organizational members (cf.

Coser, 1974, pp. 4–7).[53] Sullivan (2014, pp. 3–7) argues that permanent connectivity drives such organizational greediness because one is always available. This can be driven by powerful managers: '[...] if the leader gets greedy, demanding the same level of urgency every day, the energy will fizzle and performance will sink, despite employees' heroics' (Bruch & Menges, 2010, p. 6). Further, high-ambition organizational members may also 'freely' decide to signal their loyalty and productivity by being available.

If an availability norm leads to the demand of undivided commitment, it is difficult to approach actual freedom. Enlightened heteronomy is hardly possible if individual interests are not taken into account and if organizational members are rather exploited based on greedy expectations. Enlightened heteronomy respectively acknowledging one's dependencies is only possible if the understanding of one's dependencies as well as if one's interests are sufficiently mirrored within organizational conditions (cf. section 2.4).

Organizational members need to learn how to deal with new freedoms in order to not undermine actual freedom (cf. section 4.1). In addition, the organization as an entity needs to learn how to deal with it and set up suitable training and rules on digital communication by also incorporating individual interests (cf. section 4.2).

3.4.4 Rules and Sanctions for the Sake of Freedom

In the study of Lewe and Pfeil (2014a, p. 3, 2014b, p. 5), only 33 percent of the students surveyed consider compliance with rules to be important. This may become problematic since functioning rules enable stable expectations and a responsible approach towards digital communication. Especially in times of permanent connectivity, functioning rules are necessary in order to enable breathing room for organizational members outside of their organizational role.

[53] Modern societies are characterized by partial inclusion. Based on our system of functional differentiation, humans are included in diverse sub-systems like family, healthcare, community work, sports as well as organizations. If one of these sub-systems become greedy and requests undivided commitment, it is difficult to meet the requirements of the other sub-systems.

Understanding and acknowledging the purpose of organizational rules is an important part of enlightened heteronomy. Dependencies like rules and duties are what enable us to approach actual freedom. Early on, Cicero (Pro Cluentio, 53, 146, own translation) formulated this thought as follows: 'We all are servants of the law in order to be free.' At first glance, this is a restriction of subjective freedom. However, it is an investment in the resulting actual freedom within the organizational order. Hence, it is important to understand direct restrictions in the form of rules as an enabler of one's own freedom.

The fact that subjective freedom cannot be unlimited is a key message in the book of James M. Buchanan (2000) 'The Limits of Liberty'. The functioning of any social order is based on limits of subjective freedom in order to enable actual freedom (cf. Buchanan, 2000, pp. 22–24, 149–152). A stable social order is based on the mutual agreement of a majority (of organizational members) on formal and informal rules and rights as well as their enforcement through sanctions. That is why it may be dangerous if only a minority of organizational members thinks that compliance with rules is important.

The validity of rules and rights is determined through the social consequences of deviant behavior (cf. Luhmann, 1986, pp. 22–23). Deviance is a normal phenomenon (cf. Durkheim, 1979, pp. 3–5). However, deviant behavior needs to be sanctioned through an authority respectively through social rejection (cf. Durkheim, 1979, p. 6). If a majority does not value compliance with rules, social rejection is absent; organizational order is at risk.

The freedom of the organizational members is limited through the freedom of others and must be regulated by the organization. However, this needs to be understood and accepted. Hegel (1986, pp. 190–192, 1991, pp. 126–127) even goes so far as to say that a criminal should feel honored if her crime was sanctioned. Sanctions need to be understood as rights. It was the freedom of the acting human to take the action under current law. So, it is also one's right to receive corresponding sanctions. Otherwise, we would approach a state of what Thomas Hobbes (1976) has called a 'war by all against all'.

The same counts for organizational orders in times of permanent connectivity. That is why abstract freedom (interpreting any form of commitment including rules as a threat) as well as subjective freedom (doing as one pleases) cannot be deemed as actual freedom on their own.

The question is now if all organizational members need to start reflecting on freedom from a philosophical perspective. My answer is: 'No.' It is conceivably sufficient to be aware that new forms of freedom (ability to choose where to work or the choice to work from home) are inevitably connected to unintended consequences like permanent availability. Such awareness also includes that focusing on the new advantages of digital communication does not eliminate potential unintended consequences. Mostly, it even exacerbates them. What we need are moral heuristics that are suitable for everyday business. Such heuristics encourage considering one's embeddedness. Thereby, moral discernment should be trained in order to enable responsible decision-making and to approach actual freedom.

4. What Should Organizations Do?

4.1 Institutionalize Moral Discernment

It should be clear for the reader that communication technologies are not a neutral topic; their (moral) value is a question of how they are used (cf. Litschka & Karmasin, 2012, p. 231). Litschka and Karmasin (2012, pp. 231–233) make clear that moral and ethics needs a place in organizations; examples could be an ethics commission, an ethics hotline or an ethics officer.[54] In addition, they also recommend installing ethics training: '[...] teaching some basic reflection models on ethics and solving typical dilemma situations. Awareness raising, discursive abilities, moral competences, intersubjective agreements, and personnel development are in the center of such programmes'.

My recommendation focuses exactly on such training. However, training on moral discernment needs to be supplemented by educating digital literacy. Digital literacy presents the

[54] I use the term 'moral' comprehensively and abstain from a differentiation to the term 'ethical' for simplification purposes. Hence, on the one hand 'moral' refers to decisions that are related to values. On the other hand, the term is used to describe decisions that are normatively adequate (cf. Gunia, Wang, Huang, Wang, & Murnighan, 2012, p. 14).

pre-requisite of understanding new conditions of digital communication (cf. Entschew & Suchanek, 2017, pp. 363–365). This two-level-approach allows organizational members to reflect on relevant questions like 'What is the right thing to do if one is perceiving an overload of digital information?' (Entschew & Suchanek, 2017, p. 364), 'When shall I abstain from an attractive choice?' or 'When shall I be digitally available?'. Thereby, new freedom should be reflected on with regard to its different forms (e.g., realizing choices like working from home within a specific time frame as well as abstaining from choices like writing emails on Sundays).

Moral discernment aims at 'good' decision-making, whereby a moral evaluation of actions and expectations is made which considers both the temporal and the social dimension. Hence, it is assumed that this is the right competence to learn that it is not only about direct consequences (freedom through working from anywhere at any time), but also about unintended consequences (organizational norms requiring permanent availability).

Through the combination of digital literacy and moral discernment, organizational members are trained to deal with situational conflicts that are typically a part of working life with increasing digital communication. This can be trained by applying moral heuristics (helpful heuristics can be found in Suchanek, 2015). '[...] it is all the more important that not only firms, but also their stakeholders [including organizational members], invest in the ability of moral discernment as the most elementary prerequisite for sustainable social cooperation for mutual advantage' (Suchanek, 2017a, p. 88).

If no education concerning ethical reasoning is offered to organizational members – with a special focus on managers – imprudent decision-making, especially with regard to ethical matters (e.g., exploiting availability of organizational members), would potentially create and increase ethical risks (cf. Litschka & Karmasin, 2012, p. 230). In 14 expert interviews with researchers and managers in Austria, Litschka and Karmasin (2012, pp. 229–231) identified different impediments to ethical decision-making, among others a lack of education for managers to acquire ethical reasoning.

Especially in times of permanent connectivity, moral discernment is a competence that needs to be trained in organizations, with a focus on managers. As a result, managers are better equipped to encourage a conducive, sustainable work culture. Organizational researchers underline the power of organizational culture to encourage moral behavior in digital environments instead of focusing on improved individual behaviors and judgement (Al-Saggaf, Burmeister, & Weckert, 2015; Burmeister, 2017). It is derived that both, culture and individual judgement necessitate each other.

4.2 Institutionalize Availability Rules

Since moral discernment is about evaluating one's social and temporal dimension, it also supports understanding, acknowledging and developing organizational rules. Functioning rules enable stable expectations and better judgment. 'Everyday life is structured by reciprocal expectations' (Luhmann, 1977, p. 46). As a result, organizational routines develop.

According to Gehlen (2004, p. 20), sufficiently stable routines form the foundation for organizations and their members. Due to the predictability character of routines, organizational members can take a known action sequence for granted in the future, which is accompanied by the development of reliable expectations enabling the derivation of adequate judgments (cf. Misztal, 1996, pp. 102–111).

Although organizational members rely on sufficiently stable expectations and routines, this cannot be guaranteed in times of digital communication. As was explained in section 3.4.4, only a minority of young organizational members think compliance with rules is important. When 'having the choice' based on abstract freedom and 'realizing choices' based on subjective freedom become an increasing principle in organizations, expectations and routines regarding availability may change frequently. Nonetheless, also in times of permanent connectivity, functioning rules need to enable reliable expectations and breathing room for organizational members outside of their organizational role.

This is confirmed in the study of Derks, Brummelhuis, Zecic, and Bakker (2012). The findings emphasize the importance of a clear organizational policy regarding work-related smartphone use outside of work hours (e.g., a policy stating that organizational members are not expected to be available in their leisure time as well as clarifying what counts as leisure time) (cf. Derks, Brummelhuis, Zecic, & Bakker, 2012, pp. 88–89).

Hence, to some extent, subjective freedom may be restricted in order to enable actual freedom. An example presented by Bruch and Menges (2010, p. 6) refers to feedback systems. Contrary to what one would expect, in this case, feedback is supposed to notify too much work instead of too little work. An organization deploying such feedback culture is Serview; a small, but highly productive German IT consulting firm:

'Serview, [...] asks employees to watch out for colleagues who may be working too hard. Workers receive monthly feedback from managers about (among other things) whether they are taking adequate measures to rest and recharge. Workers also fill out a monthly self-assessment on the same issues. The feedback system caused a pronounced behavioral change. Employees look for symptoms of excessive labor and over-acceleration in themselves and their colleagues, and they strive to develop solutions as problems arise' (Bruch & Menges, 2010, p. 6).

However, it necessitates moral discernment of managers and employees in order to successfully implement such policies and rules. Other rules which should be considered refer to the interruption of organizational interdependence (cf. Luhmann, 2013). In an interview, the former vice president of growth at Facebook Chamath Palihapitiya warns against the usage of social media technologies:

'The short-term, dopamine-driven feedback loops that we have created are destroying how society works: no civil discourse, no cooperation, misinformation, mistruth,' he says. 'It is eroding the core foundations of how people behave by and between each other. I don't have a good solution. My solution is I just don't use these tools anymore' (Snyder, 2017).

Not using a certain technology anymore is an absolute form of interruption of interdependence. I do not recommend abandoning social communication tools completely.[55] It should

[55] Please note that Chamath Palihapitiya is talking about Facebook as a social media platform for private use, while this paper is about social communication technologies in professional relationships. However, his assessment on this platform provides an interesting insight on the potential risks of extensively using digital communication tools.

suffice to build up organizational structures that allow for temporary interruption of organizational interdependence. As soon as a norm of permanent availability manifested, it is hardly possible to interrupt interdependence.

Hence, interruption of organizational interdependence needs to be coordinated by organizational structures and managers. Simons (2005, pp. 157–158) is addressing this form of coordinated self-commitment by pointing out the responsibility of managers to protect employees e.g., from excessively using the possibility of a home office.

Commitments like these are necessary for enabling open spaces for reflection and an 'outside perspective'. Based on this, a so-called 'tunnel-vision' can be avoided. This is highly important for profound moral discernment in times of permanent connectivity (cf. Böldicke & Erfurt Sandhu, 2017, pp. 57–58). Examples are being offline during holidays, activating a cell phone's flight mode during family time or shutting down email servers of an organization, all of which needs to be taught and enabled through the organization.

5. Conclusion

In conclusion, this paper gave an overview of three important forms of freedom in order to approach actual freedom and avoid unintended consequences. (*RQ: In times of permanent connectivity, what are important forms of freedom in order to prevent unintended consequences?*).

Based on that, I analyzed new freedom in terms of independence and realizing choices through digital communication. The key message of the paper is that considering one's temporal and social embeddedness is an indispensable part of actual freedom in order to avoid unintended consequences.

If we mainly focus on the direct advantages of digital communication (like freedom in form of independence and realizing choices) there might be drawbacks, especially in the long-run (cf. Derks, Brummelhuis, Zecic, & Bakker, 2012, p. 89). One of the drawbacks referring to the expectation of permanent availability was analyzed (cf. P1: *When focusing on freedom as* *independence and realizing choices, unintended consequences like expectations of permanent availability may develop*).

In order to take advantage of the great possibilities of digital communication, organizations need to handle potential risks by setting up training of moral discernment and functioning regulations (cf. P2: *Training of moral discernment as well as implementing regulations on availability help to cope with availability expectations responsibly in times of permanent connectivity*). Otherwise, we may lose control of our decision-making, e.g., when do we want to be available and when do we not want to be available.

6. References

Al-Saggaf, Y., Burmeister, O. K., & Weckert, J. (2015). Reasons behind Unethical Behaviour in the Australian ICT Workplace: An Empirical Investigation. *Journal of Information, Communication and Ethics in Society*, *13*(3/4), 235–255.

Arlt, H.-J. (2017). *Arbeit und Freiheit: Eine Paradoxie der Moderne*. Wiesbaden: Springer VS.

Atkinson, S. R., & Moffat, J. (2007). *The Agile Organization: From Informal Networks to Complex Effects and Agility*. Washington DC: CCRP Publications.

BKK Dachverband. (2017). *Krankheitstage durch das Burn-out-Syndrom in Deutschland nach Geschlecht in den Jahren 2004 bis 2016: AU-Tage je 1.000 BKK-Mitglieder*. Retrieved from https://de.statista.com/statistik/daten/studie/189542/umfrage/anzahl-der-krankheitstage-durch-das-burnout-syndrom-seit-2004/

Böldicke, E. M., & Erfurt Sandhu, P. (2017). Ständig erreichbar: Die Entgrenzung von Mensch und Organisation. *Zeitschrift für Unternehmensentwicklung und Change Management*, *36*(4), 56–59.

Boswell, W. R., & Olson-Buchanan, J. B. (2016). The Use of Communication Technologies After Hours: The Role of Work Attitudes and Work-Life Conflict. *Journal of Management*, *33*(4), 592–610.

Bruch, H., & Menges, J. I. (2010). The Acceleration Trap. *Harvard Business Review*, *88*(4), 80–86.

Buchanan, J. M. (2000). *The Limits of Liberty: Between Anarchy and Leviathan* (7th edition). Indianapolis: Liberty Fund.

Burmeister, O. K. (2017). Professional Ethics in the Information Age. *Journal of Information, Communication and Ethics in Society*, *15*(4), 348–356.

Cederström, C., & Spicer, A. (2015). *The Wellness Syndrome*. Cambridge: Polity Press.

Coser, L. A. (1974). *Greedy Institutions: Patterns of Undivided Commitment*. New York: The Free Press.

Crawford, M. B. (2016). *Die Wiedergewinnung des Wirklichen: Eine Philosophie des Ichs im Zeitalter der Zerstreuung*. Berlin: Ullstein.

Derks, D., Brummelhuis, L. L. ten, Zecic, D., & Bakker, A. B. (2012). Switching on and off …: Does Smartphone Use Obstruct the Possibility to Engage in Recovery Activities? *European Journal of Work and Organizational Psychology*, *23*(1), 80–90.

Durkheim, É. (1972). Moral Obligation, Duty and Freedom. In A. Giddens (Ed.), *Émile Durkheim: Selected Writings* (pp. 108–122). Cambridge: Cambridge University Press.

Durkheim, É. (1979). Kriminalität als normales Phänomen. In F. Sack (Ed.), *Kriminalsoziologie* (3rd edition, pp. 3–8). Wiesbaden: Akademische Verlagsgesellschaft.

Durkheim, É. (1984). *Erziehung, Moral und Gesellschaft* (7th edition). Frankfurt am Main: Suhrkamp.

Durkheim, É. (1997). *The Division of Labor in Society* (7th edition). New York: The Free Press.

Ehrenberg, A. (2010). *The Weariness of the Self: Diagnosing the History of Depression in the Contemporary Age*. Quebec: McGill-Queen's University Press.

Entschew, E. M., & Suchanek, A. (2017). Digital Communication: A New Challenge For Moral Discernment. *Journal for Business, Economics and Ethics*, *18*(3), 305–327.

Fenner, G. H., & Renn, R. W. (2004). Technology-Assisted Supplemental Work: Construct Definition and a Research Framework. *Human Resource Management*, *43*(2–3), 179–200.

Foerster, H. von (1993). *Wissen und Gewissen: Versuch einer Brücke*. Frankfurt am Main: Suhrkamp.

Galinsky, E., Kim, S. S., & Bond, J. T. (2001). *Feeling Overworked: When Work Becomes Too Much*. New York: Families and Work Institute.

Gehlen, A. (2004). *Urmensch und Spätkultur: Philosophische Ergebnisse und Aussagen* (6th extended edition). Frankfurt am Main: Klostermann.

Gerecke, U. (1998). *Soziale Ordnung in der modernen Gesellschaft: Ökonomik - Systemtheorie - Ethik*. Tübingen: Mohr Siebeck.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of Conflict Between Work and Family Roles. *Academy of Management Review*, *10*(1), 76–88.

Gronemeyer, M. (2014). *Das Leben als letzte Gelegenheit: Sicherheitsbedürfnisse und Zeitknappheit*. Darmstadt: WBG – Wissenschaftliche Buchgesellschaft.

Gunia, B. C., Wang, L., Huang, L., Wang, J., & Murnighan, J. K. (2012). Contemplation and Conversation: Subtle Influences on Moral Decision Making. *Academy of Management Journal*, *55*(1), 13–33.

Hamilton, K., Karahalios, K., Sandvig, C., & Eslami, M. (2014). A Path to Understanding the Effects of Algorithm Awareness. In M. Jones, P. Palanque, A. Schmidt, & T. Grossman (Eds.), *Extended Abstracts on Human Factors in Computing Systems* (pp. 631–642). New York: ACM.

Hampton, K. N. (2016). Persistent and Pervasive Community: New Communication Technologies and the Future of Community. *American Behavioral Scientist*, *60*(1), 101–124.

Han, B.-C. (2016). *Psychopolitik: Neoliberalismus und die neuen Machttechniken* (2nd edition). Frankfurt am Main: Fischer.

Harvey, D. (1990). *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Cambridge MA & Oxford UK: Blackwell.

Hassan, R. (2016). Network Time and the New Knowledge Epoch. *Time & Society*, *12*(2/3), 225–241.

Hegel, G. W. F. (1977). *Phenomenology of Spirit*. Oxford: Oxford University Press.

Hegel, G. W. F. (1986). *Grundlinien der Philosophie des Rechts oder Naturrecht und Staatswissenschaft im Grundrisse: Mit Hegels eigenhändigen Notizen und den mündlichen Zusätzen*. Frankfurt am Main: Suhrkamp.

Hegel, G. W. F. (1991). *Elements of the Philosophy of Right*. Cambridge: Cambridge University Press.

Hewlett, S., Sherbin, L., & Sumberg, K. (2009). How Gen Y & Boomers will reshape your agenda. *Harvard Business Review*, *87*(7/8), 71–76.

Hobbes, T. (1976). *Leviathan*. Stuttgart: Reclam.

Homann, K. (2014). *Sollen und Können: Grenzen und Bedingungen der Individualmoral* . Wien: Ibera Verlag European University Press.

Katz, D., & Kahn, R. L. (1978). *The Social Psychology of Organizations* (2nd edition). New York: Wiley.

Khan, S. A., & Agha, K. (2013). Dynamics of the Work Life Balance at the Firm Level: Issues and Challenges. *Journal of Management Policy and Practice*, *14*(4), 103–114.

Kulik, C., Bainbridge, H. T. J., & Cregan, C. (2008). Known by the Company we Keep: Stigma-by-Association Effects in the Workplace. *Academy of Management Review*, *33*(1), 216–230.

Lewe, P., & Pfeil, S. (2014a). *Das Arbeitgeberwahlverhalten der Generation Y: Eine werteorientierte Analyse unter besonderer Berücksichtigung des Sinns der Arbeit: Executive Summary*. Köln: Enactus e.V., Leipzig: HHL Leipzig Graduate School of Management.

Lewe, P., & Pfeil, S. (2014b). *Das Arbeitgeberwahlverhalten der Generation Y: Eine werteorientierte Analyse unter besonderer Berücksichtigung des Sinns der Arbeit: Studienbericht*. Köln: Enactus e.V., Leipzig: HHL Leipzig Graduate School of Management.

Litschka, M., & Karmasin, M. (2012). Ethical Implications of the Mediatization of Organizations. *Journal of Information, Communication and Ethics in Society*, *10*(4), 222–239.

Luhmann, N. (1977). Differentiation of Society. *Canadian Journal of Sociology*, *2*(1), 29–53.

Luhmann, N. (1986). *Die soziologische Beobachtung des Rechts*. Frankfurt am Main: Alfred Metzner Verlag.

Luhmann, N. (1989). *Ecological Communication*. Chicago: University of Chicago Press.

Luhmann, N. (1995). *Social Systems*. Stanford: Stanford University Press.

Luhmann, N. (2007). *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung* (5th edition): VS, Verlag für Sozialwissenschaften.

Luhmann, N. (2013). *Introduction to Systems Theory*. Cambridge: Polity Press.

Makimoto, T., & Manners, D. (1997). *Digital Nomad*. Chichester: Wiley.

Marx, K., & Engels, F. (1972). *The German Ideology*. New York: International Publishers.

Menz, W. (2017). *Erweiterte arbeitsbezogene Erreichbarkeit Ausprägungen, Belastungen, Handlungsstrategien: Ergebnisse einer qualitativen Beschäftigtenbefragung des Projekts MASTER – Management ständiger Erreichbarkeit*. München: ISF München. Retrieved from http://www.isf-muenchen.de/pdf/Erweiterte_arbeitsbezogene_Erreichbarkeit.pdf

Middleton, C. A., & Cukier, W. (2006). Is Mobile Email Functional or Dysfunctional? Two Perspectives on Mobile Email Usage. *European Journal of Information Systems*, *15*(3), 252–260.

Misztal, B. A. (1996). *Trust in Modern Societies: The Search for the Bases of Social Order*. Cambridge: Polity Press.

North, D. C. (1991). Institutions. *The Journal of Economic Perspectives*, *5*(1), 97–112.

North, D. C. (2005). *Institutions, Institutional Change and Economic Performance* (18th edition). Cambridge: Cambridge University Press.

O'Reilly, C. (2008). Corporations, Culture, and Commitment: Motivation and Social Control in Organizations. *California Management Review*, *50*(2), 85–101.

PwC. (2014). *Health Wearables: Early Days*. New York: PricewaterhouseCoopers. Retrieved from https://www.pwc.com/us/en/health-industries/top-health-industry-issues/assets/pwc-hri-wearable-devices.pdf

Rosa, H. (2003). Social Acceleration: Ethical and Political Consequences of a Desynchronized High–Speed Society. *Constellations*, *10*(1), 3–33.

Rosa, H. (2014). *Beschleunigung: Die Veränderung der Zeitstrukturen in der Moderne* (10th edition). Frankfurt am Main: Suhrkamp.

Rosa, H. (2016). *Resonanz: Eine Soziologie der Weltbeziehung* (2nd edition). Berlin: Suhrkamp.

Salecl, R. (2011). *The Tyranny of Choice*. London: Profile Books.

Schmid, W. (2008). Mit sich selbst befreundet sein: Von der Lebenskunst im Umgang mit sich selbst. *Aufklärung und Kritik*, *Sonderheft 14*.

Schmidt, E., & Cohen, J. (2014). *The New Digital Age: Reshaping the Future of People, Nations and Business*. London: Murray.

Schwartz, B. (2007). *The Paradox of Choice: Why More is Less* (reissued.). New York: Harper Perennial.

Simons, R. (2005). *Levers of Organization Design: How Managers Use Accountability Systems for Greater Performance and Commitment*. Boston: Harvard Business School Press.

Snyder, B. (2017, December 12). Chamath Palihapitiya: Why Failing Fast Fails: The Social Capital CEO explains where Silicon Valley gets it wrong. *Insights by Stanford Business*. Retrieved from https://www.gsb.stanford.edu/insights/chamath-palihapitiya-why-failing-fast-fails

Suchanek, A. (2011). *Freiheit braucht Bindung*. Lutherstadt Wittenberg: Wittenberg-Zentrum für Globale Ethik.

Suchanek, A. (2015). *Unternehmensethik: In Vertrauen investieren*. Tübingen: Mohr Siebeck.

Suchanek, A. (2017a). Corporate Responsibility as the Avoidance of Relevant Inconsistencies. In R. R. Sharma, M. Csuri, & K. Ogunyemi (Eds.), *Managing for Responsibility: A Sourcebook for an Alternative Paradigm* (pp. 77–89). New York: Business Expert Press.

Suchanek, A. (2017b). Die Bedeutung der Ordnungen des Handelns und der Kommunikation. In W. George, E. U. v. Weizsäcker, & C. Bals (Eds.), *Laudato Si': Wissenschaftler antworten auf die Enzyklika von Papst Franziskus* (pp. 119–128). Gießen: Psychosozial Verlag.

Sullivan, T. A. (2014). Greedy Institutions, Overwork, and Work-Life Balance. *Sociological Inquiry*, *84*(1), 1–15.

Sydow, J., Schreyögg, G., & Koch, J. (2009). Organizational Path Dependence: Opening the Black Box. *Academy of Management Review*, *34*(4), 689–709.

Tapscott, D. (2014). *The Digital Economy: Rethinking Promise and Peril in the Age of Networked Intelligence* (20th anniversary edition). New York: McGraw-Hill.

Wood, A. W. (1995). *Hegel's Ethical Thought*. Cambridge: Cambridge University Press.

4. Digital Communication in Organizations: Acceleration and a Lack of Time

Elisa Maria Entschew, Research Associate, HHL Leipzig Graduate School of Management, Jahnallee 59, 04109 Leipzig, Germany

An adapted version is currently under review at Ethics and Information Technology.

Abstract

Digital communication between humans fundamentally changes the nature of communication. One inherent change is the acceleration of communication as a systematic change in societal life, particularly in the workplace. Often, the aim is to unleash time resources. However, the acceleration of communication also leads to the opposite: a lack of time. To better understand and handle equivocal developments such as these, organizations need to invest in suitable regulations and the competence of moral discernment.

Key Words: Digital Communication, Acceleration, Time, Rebound Effect, Moral Discernment

Table of Contents

1. Introduction

1.1 Digital Communication and Acceleration

The digital revolution of the late 20th century (which is still ongoing) is concentrated on faster communication and information flows (cf. Augier & Mola, 2016, p. 13; Rosa, 2014, p. 246). Still, it seems that we often have not enough time, despite the fact that we are constantly saving time through acceleration with the use of technological innovations (cf. Rosa, 2014, p. 11). The theoretical contribution, which this paper seeks to make, is to systematize and understand this paradox by focusing on digital communication. In particular, I examine digital, accelerated communication between organizational members[56] and why the mentioned paradox may become problematic.

Organizations[57] are increasingly required to operate faster, including their communication processes (cf. Child & McGrath, 2001, pp. 1136–1139; Eisenhardt, 1989). Digital communication enables this intended acceleration. Digital communication encompasses the conversion of analogue information[58] into digital information and the transmission and processing of digital information. In this paper, I mainly refer to communication via email, instant messaging services and social media channels which enable digital correspondence.

Digitalization increasingly allows for 'complete human communication' (Tapscott, 2014, pp. 137–138). This means that the four forms of information (data, text, audio, and video) can be exchanged via one multimedia system: 'Two professionals in different parts of the globe can exchange (at the speed of light) computerized, or 'digital documents,' that contain data, text, audio, and video' (Tapscott, 2014, p. 138).

Such information is exchanged at the speed of light. No space needs to be bridged anymore in order to exchange information, as it is the case when using letters. Hence, digital communication enables increasing independence of space of the interacting organizational

[56] The term 'organizational members' includes managers and employees at non-managerial level.
[57] The article refers to for-profit organizations.
[58] Information is understood as messages received and understood (redundancies are not included).

members (Rosa, 2014, pp. 126–127). This can be generalized as the compression of space through time resulting in time savings[59] (cf. Harvey, 1990, pp. 240–307).

A possible change regarding this development is the acceleration of communication (cf. Brynjolfsson & McAfee, 2014, p. 41; Moore, 1965, p. 115), including an increasing amount of information (cf. Child & McGrath, 2001, p. 1136; Zuboff, 1988, p. 348).

In general, acceleration describes a growing quantity per time unit; the quantity can refer to a distance travelled (e.g., $\frac{km}{h}\uparrow$), to produced goods (e.g., $\frac{x}{d}\uparrow$) or to the communicated amount of information (e.g., $\frac{info}{d}\uparrow$) (cf. Rosa, 2014, pp. 113–118). In organizations, processes like communication are often optimized in order to unleash time resources and to use them 'for more productive activities' (Chui et al., 2012, p. 11). Here, productive activities mean activities increasing productivity. Productivity of one's work is understood as output quantity per invested time unit. Increasing productivity implies growth[60].

Indeed, the logic of acceleration in order to be more productive and grow is nothing new, but rather a functional principle of economic thinking since centuries (cf. Hassan, 2016, p. 234; Schulze, 1997, p. 77). 'Capitalism and speed are indissolubly connected' (Hassan, 2016, p. 234).

1.2 What is the Problem?

'We are living in the most complex and rapid-changing of times. The pace of technological innovation, like never before is challenging the way we operate' (Martin, 2013, p. 33). Surprisingly, this quote is not from the 21st century but it is from a 19th century edition of the Scientific American journal (cf. Martin, 2013, p. 33).

Mintzberg and Martin (cf. Martin, 2013, p. 33) use this comparison in order to show that acceleration is dependent on the perception of humans. Also, acceleration seems to be

[59] In fact, the increasing wages since World War II in developed countries created incentives for time-saving technologies since opportunity costs of time permanently increase (cf. Binswanger, 2001, p. 128).

[60] For the purpose of this paper, it is useful to differentiate between different types of growth like growth of projects or information (organizational member's perspective) as well as market expansion or growth of products/ services (organizational perspective), which may, in turn, require growth from the organizational member's perspective.

relative with regard to the tools available to deal with it: '[O]ur tools are way superior to what they have ever been' (Martin, 2013, p. 33).

Hence, tools and technologies enable humans to better deal with acceleration. However, this claim neglects an inherent problem: These very technologies possibly reinforce acceleration processes, triggering a self-reinforcing cycle that is not easy to stop. This is due to technologies possibly evoking behavioral responses.

For instance, communication technologies enable time savings through more efficient communication (dealing better with acceleration, e.g., through communication via email instead of a conventional letter). Often, incentives of professional work in the context of digital communication lead to implicit expectations of permanent availability implying increasing expectations regarding response times (cf. Entschew & Suchanek, 2017, pp. 352–355; Menz, 2017, p. 22).

A widespread behavioral reaction is to almost permanently process work-related information by using communication technologies, thereby increasing the volume of information (cf. Menz, 2017, pp. 20–21).[61] New technologies (e.g., from email to slack[62]) may help to better deal with the increase in the volume of information by enabling further time savings; and thus, the self-reinforcing acceleration cycle would be complete (cf. section 2). The question remains: 'How can a lack of time develop although we are saving time through acceleration?'

It is often assumed that an increase of efficiency through technological progress by one percent also leads to a decrease in resource use by one percent (cf. Binswanger, 2001, p. 120). In fact, the reduction in resource use is often below one percent and sometimes resource use even increases (cf. Binswanger, 2001, p. 120).

[61] Various technologies allow organizational members to work beyond physical boundaries of the organization (cf. Khan & Agha, 2013, p. 16). This blurring separation of private and professional life is a main challenge of maintaining the focus of the analysis on professional relationships, since a clean separation is not always feasible.

[62] Slack is a cloud-based instant-messaging service enabling more efficient communication. The service facilitates better organized communication in teams, groups or communities, the integration of other online-services as well as joint work on documents.

In the illustration above, the intended time savings (technological progress) may be overcompensated by an increase in information (behavioral response). As a result, a decrease in resource use referring to the resource of time cannot be taken for granted. If efficiency gains (time savings) are overcompensated through growth effects (more information) we can speak of a rebound effect (cf. Berkhout, Muskens, & W. Velthuijsen, 2000, p. 425; Binswanger, 2001, p. 120). A lack of time develops if the rate of technological acceleration is lower than the growth rate (cf. Rosa, 2003, p. 10). A more detailed attempt of explaining such a systematic development of a lack of time can be found in the acceleration cycle (cf. section 2).

A significant part of the problem is that organizational members do not necessarily recognize or understand such subtle changes through digital communication (cf. Derks, Brummelhuis, Zecic, & Bakker, 2012, p. 82; Entschew & Suchanek, 2017, pp. 352–355, 359–361). Further – in many cases – managers base their decisions on a reductionist concept of time: They focus on the direct, intended consequences; this is called managerial myopia (cf. Larwood & Whittaker, 1977; Levitt, 1960). If both are the case, it can be expected that unintended consequences like a chronic lack of time – preventing a sustainable[63] energy level in the organization – stay unnoticed. Identifying consequences like these would require a sufficient understanding of one's (digital) environment. An inherent part of the environment to be understood is acceleration (cf. section 2 and 3). In addition, in case the problem is identified, there needs to be the intention as well as the ability to cope with it in order to adequately regulate the acceleration cycle (cf. section 4).

1.3 Research Question and Procedure

The following research question guides the reader throughout the analysis:

[63] Here, the term 'sustainable' or 'sustainability' mainly relates to the energy level of organizational members based on the consideration of current and future time periods. If future time periods are not taken into account sufficiently, organizational members may 'overcommit' and are not able to maintain a healthy energy level. While sustainable development builds upon the ecological, social and economic dimensions (cf. Winn & Kirchgeorg, 2005), the focus of this paper lies on the social and the economic dimensions.

RQ: Can digital communication systematically lead to organizational members experiencing a lack of time?

I am suggesting the following propositions (P):

P1. *Digital communication leads to the experience of a chronic lack of time if an accelerating communication cycle prevails.*

P2. *If a chronic lack of time prevails, organizations and their members may 'burn out'*[64].

P3. *By investing in moral discernment, organizational members*[65] *may better understand the risks of a chronic lack of time and the suitability of investing in further measures*

The analysis starts with a theoretical examination of Rosa's (2003, 2014) acceleration theory with a particular focus on the acceleration cycle. The acceleration cycle is transferred to digital communication, thereby examining the accelerating communication cycle. On this basis, the examples of communicating via letter, email and slack are analyzed. In this context, possible risks are pointed out.

Subsequently, recommendations of necessary investments are derived. These investments relate to adequate regulations as well as to organizational members' moral discernment in order to understand and handle the possible risks.

Moral discernment describes the competence for reflection regarding 'good' decision-making, whereby a moral evaluation of actions and expectations is made which considers both the temporal and the social embeddedness.[66] I use the term 'moral' comprehensively and abstain from a differentiation to the term 'ethical' for simplification purposes. Hence, on

---

[64] 'Burning out' does not relate to a medical term, rather, the term is understood as the result of a decreasing motivation and energy level of organizational members. The understanding of 'burn out' underlying this article is delineated in section 3.2.3.

[65] Solid moral discernment is a competence which is relevant for all organizational members in order to encourage responsible decision-making. Nonetheless, due to the decision-making power, the overarching scope of responsibilities as well as the role model function of managers, this competence is especially relevant for leadership positions.

[66] Social embeddedness means that one person's actions influence the conditions and actions of others. Further, organizational members are embedded within the temporal dimension, whereby individual or collective actions influence the conditions of action, which apply for future actions (temporal embeddedness).

the one hand 'moral' refers to decisions that are related to values. On the other hand, the term is used to describe decisions that are normatively adequate (cf. Gunia, Wang, Huang, Wang, & Murnighan, 2012, p. 14). While everybody is equipped with moral discernment, the level of training[67] is the decisive factor influencing the ability to do 'the right thing' and avoid doing bad things (cf. Suchanek, 2015). Throughout the analysis, I mainly focus on the micro- (organizational members) and the meso-level (organization). In section 2 and 3, I am examining the acceleration process as well as its external forces like economic forces. Hence, I am required to also refer to the macro-level in order to systematize the problem.

Before jumping into the next section, it is important to note, that the presented acceleration cycle as well as its transfer to digital communication is a (simplifying) model, in the full knowledge that reality is much more complex. Although, some arguments seem to be close to what is understood as reality, the approach of the analysis is to model tendencies; meaning that explained relationships do not necessarily have to be that way. What will be described are not natural laws, but attempted explanations of phenomena which can and do occur, though their occurrence is contingent on innumerable different variables in reality. Nevertheless, reasons are provided to assume that the described forces prevail in specific settings.

2. The Acceleration Cycle

2.1 Technological Acceleration

Since digital devices entered the life of many humans, processes are increasingly accelerating. Moore's law is often referred to as a prediction for technological acceleration. It refers

[67] It has to be noted that, despite the significance of this competence, moral discernment is a rather elusive construct. It can be understood as 'profound intuition' which depends on 'lifelong learning' as well as gathering and reflecting upon personal experiences. For this reason, the theoretical explanation of moral discernment and the recommendation regarding specific training of moral discernment contained in this article are too narrow a scope for reality. Grasping the whole meaning of moral discernment via specific training and concepts does not suffice in order to achieve its ambitious claim of doing 'the right thing' or avoiding bad. However, based on its relevance for organizations in accelerated times, I consider it nonetheless important to introduce this competence and to outline the meaning of it as clearly as possible.

to the component cramming within an integrated circuit: 'The complexity for minimum component costs has increased at a rate of roughly a factor of two per year […]. Certainly, over the short term this rate can be expected to continue, if not to increase' (Moore, 1965, p. 115). With this, Moore (1965) predicted the exponential growth of the performance of digital devices and thereby, technological acceleration. Today, it is prevalent to set 'eighteen months as the doubling period for general computing power' (Brynjolfsson & McAfee, 2014, p. 41).[68] Among other things, technological acceleration also applies to intentional faster communication (cf. Rosa, 2014, p. 124).

Digital communication means exchanging information via digital devices. The speed of communication increased by a factor of 10^{11} within the last 200 years (Heylighen, 2008, pp. 285–286). Innovations such as various internet services (email, skype, slack, etc.) have been particularly relevant in facilitating this intentional acceleration.

Technological acceleration enables people to save time, which can then be used for more productive activities. For instance, time savings are created through the optimization of one-to-one (or one-to-many) communication to many-to-many communication (cf. Chui et al., 2012, pp. 10–11; Leonardi et al., 2013).

For instance, via email (one-to-one or one-to-many communication), time is invested in order to select all relevant addressees or to formulate the right courtesies. Via slack (many-to-many communication) preset target groups and different channels are used in order to instantly chat. Slack encourages informal interactions by focusing on the shared content and on problem solving. As such, faster communication is facilitated.

2.2 Acceleration of Social Change

Acceleration of social change means that the present is shrinking from a cultural and from a structural perspective (cf. Rosa, 2014, p. 133). The present is understood as the period of time in which the base for expectations and decisions remain stable (cf. Luhmann, 1990,

[68] There are studies which predict the end of Moore's law within six to eight years; one reason is the density of transistors, which has already reached the lower nano scale (cf. Waldrop, 2016, p. 144).

pp. 135–136; Rosa, 2014, p. 134). The reduction of these periods refers to accelerated social change or shrinking time horizons (cf. figure 8).

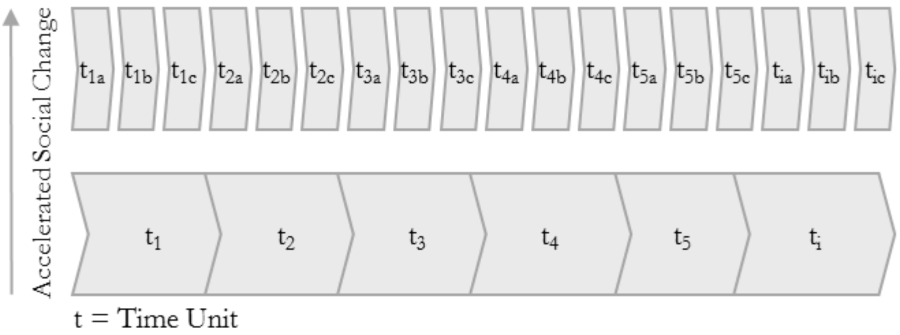

Figure 8: Reduction of Time Units (Source: Own illustration based on Luhmann, 1990, pp. 135–136; Rosa, 2014, pp. 133–134)

As a result, basic conditions like social expectations are in a state of flux implying instability, insecurity and a lack of reliability. Also, the validity of organizational expectations and action patterns would expire faster; expectations would need to be adapted at increasingly shorter intervals (cf. Rosa, 2014, p. 249).

Social change is often induced through new technologies. For instance, while important content in an organization is mainly shared via emails in t_{5a} it may now be mainly shared via slack or social media in t_{5b} creating adapted expectations with regard to communication (e.g., faster responses).

2.3 Acceleration of the Pace of Life

The third form of acceleration refers to the compression of action episodes (cf. Rosa, 2014, pp. 135–137); meaning an increase of action episodes (e.g., performing more projects) per time unit ($\frac{AE}{t}\uparrow$) (cf. figure 9).[69] According to Southerton (2003, p. 12), time is squeezed in order to be utilized and not be wasted.

[69] For more information, refer to Levine (2006)

Figure 9: Increase of Action Episodes per Time Unit (Source: Own illustration based on Rosa, 2014, pp. 135–137)

This increase of action episodes can be realized through

- a direct increase of the speed of an action e.g., eating faster, reduction of sleep[70] or communicating more efficiently;
- a reduction of breaks, idle times or interims, e.g., an increasing number of organizations allows working, doing training, eating, doing laundry, relaxing, sleeping, etc. within the organization, thereby shortening interims;
- the simultaneous execution of more activities, e.g., multi-tasking: working, eating and commuting simultaneously or communicating via multiple means of communication with different colleagues.

2.4 The Self-Reinforcement of the Acceleration Cycle

According to Rosa (2003, p. 9), a quantitative increase of action episodes through an accelerated pace of life possibly influences the 'experience of time: it will cause people to consider time as scarce, to feel hurried and under time pressure and stress'. Luhmann (1977, p. 46) also identifies that accelerated social change (shrinking time horizons), may lead to the feeling of an increasing lack of time since new expectations have to be formed at an increasing pace.

[70] An innovative technique promises to reduce sleeping time by multiphase-sleep instead of one long period of sleep. The aim is to save time in order to be more productive (cf. Stark, 2016, p. 300).

As Rosa (2003, p. 10) points out: 'If free time decreases in spite of technological acceleration, the only possible explanation is that the quantity of activity itself has changed, or more precisely, has risen faster than the corresponding technological rate of acceleration'. In other words, free time[71] is created if the rate of technological acceleration is higher than the growth rate (growth may involve an increasing number of information, projects, markets, etc.) (cf. Rosa, 2003, p. 10):

1. abundance of time:

   growth rates < technological acceleration rates

2. lack of time:

   growth rates > technological acceleration rates

If free time is directly converted into more activities (e.g., more projects or processing more information) – as a reaction to growth requirements – instead of investing time in existing activities, a lack of time develops (cf. Johnson, 1978, p. 55; Rosa, 2003, p. 11)[72]. Rosa (2014, pp. 308–309) suggests that growth and acceleration are complementary, meaning that both necessitate and stimulate each other, possibly leading to a self-reinforcing acceleration cycle.

As delineated in the previous section, organizational members can react to growth requirements via compressing action episodes: More activities are put into one time unit. However, these techniques are naturally limited (cf. Rosa, 2014, p. 244). While goods and services can grow, the resource of time cannot grow; it can only be optimized. Nonetheless, only 24 hours per day, 7 days in a week and so on can be optimized.

Hence, if the only reaction to growth requirements in organizations is an accelerated pace of life, time would become scarce. This problem could be approached by technological

[71] In organizations, free time refers to freedom of action in which organizational members have time for social activities (e.g., analogously or digitally chatting with each other regarding self-chosen content). It also refers to possible time slots used to step back from one's current role or situation for reflecting. In addition, in times of permanent connectivity, it also means actual free time used privately.

[72] It is to be noted that Johnson's (1978) study is based on a small group which is self-sufficient. Indeed, the conditions of organizations on a global market are different. However, the derivations with regard to the interplay of growth and acceleration do apply, since the study is about comparing 'our civilization with the cultures of 'primitive' or 'simpler' peoples' (cf. Johnson, 1978, p. 51).

acceleration (saving time through technologies instead of permanently accelerating one's pace of life) (cf. Rosa, 2014, p. 244) (cf. first arrow in figure 10):

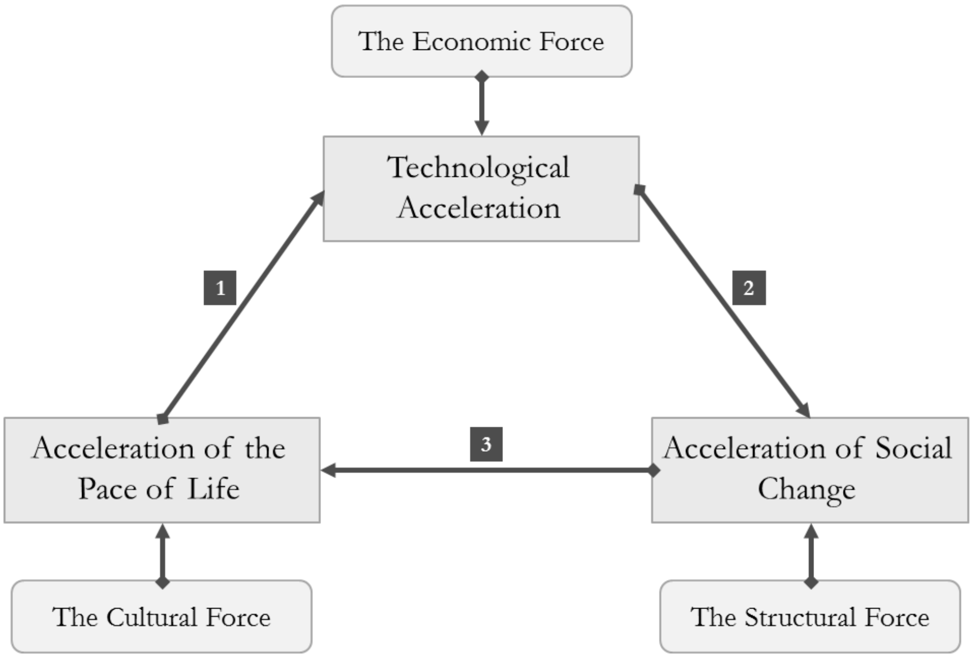

Figure 10: The Acceleration Cycle (Source: Own illustration based on Rosa, 2003, p. 12)

Other plausible reactions to time pressure could be adapting organizational expectations (e.g., regarding organizational response times), regulations or enabling interruption of (organizational) interdependencies (cf. section 4). However, organizations and their members have to understand the necessity of such investments. If that is not the case, it can be assumed that the acceleration cycle takes its course.

Technological acceleration often leads to new norms and action patterns at an accelerated pace (cf. section. 2.2). Hence, without any countermeasures, acceleration of social change results from technological acceleration (cf. Rosa, 2014, p. 248) (cf. second arrow in figure 10).

Frequently changing norms often require organizational members to adapt faster to new expectations in order to remain 'up-to-date'. They can only keep their position if they are updating their conventions and skills. Put differently: Organizational members can only maintain the status quo if they are permanently growing and updating themselves.

If an organizational member takes a longer break, his skills, experiences, even his language may become outdated. If that holds true, there is pressure in order to keep up with the accelerated changes by accelerating one's pace of life (e.g., by reducing breaks and instead, launching new projects). Then, the acceleration of social change encourages the acceleration of the pace of life (cf. Rosa, 2014, p. 250) (cf. third arrow in figure 10).

The call for time saving technologies possibly increases in light of an increasing pace of life due to the limits of the technique of compressing action episodes (cf. Rosa, 2014, pp. 250–251). If technological acceleration is the strategic answer to this problem (instead of adapting expectations, regulations or interruption of interdependence); the self-reinforcing acceleration cycle is complete.

The acceleration cycle is an example of the difference between individual and collective rationality (cf. Rosa, 2014, pp. 251–252): On the micro-level, technological acceleration seems to be a plausible solution for the problem of a lack of time. On the meso-level (or macro-level), technological acceleration may be an element of the problem. The acceleration cycle attempts to explain why organizational members may experience a lack of time, although technologies are saving time.

2.5 External Forces of the Acceleration Cycle

Rosa (2014) suggests three external forces pushing the acceleration cycle forward; namely the economic force, the structural force and the cultural force – each of which primarily drive a specific form of acceleration (cf. figure 10). In the following, I will focus on explaining the economic force. This is not due to the lesser importance of the other two forces, but this is due to the prematurity of the arguments regarding impacts of the structural and the cultural force. Yet, these forces are significant for the acceleration cycle, a discussion on both can be found in appendix I and appendix II.

The first external acceleration force refers to economic activities of organizations in a market economy. For-profit organizations in a market economy have to constantly increase their productivity (cf. Weber, 1978, pp. 64, 203–204). This is due to competition, a functional condition in market economies. Being faster than competitors in order to exploit competitive advantages is desirable for organizations. Every organization in a market economy needs to relentlessly pursue competitive advantages by means of growth (cf. Homann, 2014, pp. 51–52). Hence, permanent processing, fast reactions on work requests and other (time) efficiency boosting activities are highly desirable.

Thus, an organization is systematically relying on growth, acceleration and continuous innovation in order to stabilize the status quo (cf. Luhmann, 2004, p. 245; Rosa, 2016, pp. 13–14, 518–519). In other words, growth is needed in order to maintain one's position within global competition. '[S]tanding still is equivalent to falling behind' (Rosa, 2003, p. 11). Competition is a functional requirement of a market economy, which drives productivity and growth. However, there are desirable and undesirable forms of competition (for the following see Suchanek, 2007, p. 76). Competition is desirable if it incentivizes humans to invest in social cooperation for mutual advantage while not (illegitimately) harming third parties.[73] Seemingly, competition is a functional institutional condition. Rejecting any form of competition rather reflects reductionist discernment, since its functionalities are neglected (cf. Homann, 2014, p. 52; Suchanek, 2007, p. 33).

However, competition – including growth requirements – cannot guide organizational behavior without limitation since they contribute to the self-reinforcing acceleration cycle. The pursuits of (time) efficiency in order to be more productive and to exploit competitive advantages are distinctive organizational paradigms (cf. Rosa, 2014, pp. 257–258). As a result, acceleration and growth spirals develop (cf. Rosa, 2014, p. 260). If organizations' aim is unlimited growth, time scarcity automatically develops. This would, in turn, drive technological acceleration if the strategic answer to time scarcity were technological acceleration. As examined previously, a lack of time develops through higher growth than acceleration rates (cf. section 2.4).

Therefore, rejecting any intervention into quasi-natural competition also reflects reductionist discernment, since any normative foundation is neglected (cf. Suchanek, 2007, p. 34).

[73] From the macro-level, competition led to widespread prosperity making it a desirable condition (cf. Homann, 2014, p. 52).

So, an answer to the acceleration cycle cannot be the rejection of growth and competition, but rather measures in terms of institutional regulations (cf. section 4.2). According to Homann (2014, pp. 61–64), competition without rules is not conceivable. Rules are supposed to encourage moral behavior by sanctioning the violation of these rules (cf. Homann, 2014, p. 62). As a result, sanctions need to be developed so that the violation is not profitable (cf. Homann, 2014, p. 62). The competence of moral discernment (cf. section 4) encourages and enhances the understanding and acceptance, as well as the development of suitable rules and regulations.[74] In the third section, I am applying the acceleration theory to digital communication. Thereby, I am deriving the accelerating communication cycle. The aforementioned external forces are assumed to be present and functioning in the background.

3. The Accelerating Communication Cycle

3.1 Accelerating Communication

Based on the above understanding of the general acceleration cycle, the acceleration theory will be applied to the communication cycle (cf. figure 11).

[74] This should not be equated with an unreflective position. It is rather about avoiding hasty conclusions on how to change or circumvent existing rules, which may lead to a destruction of the social structure. Durkheim (1972, pp. 108–109) points out that one needs sufficient knowledge of a situation and relevant rules. Instead of making hasty conclusions about social changes, the function of rules should be sufficiently understood (cf. Hegel, 1991, pp. 21–23). Otherwise, one runs the risk of undermining essential social assets, e.g., the reliability of mutual expectations – a fundamental function of rules – may be compromised.

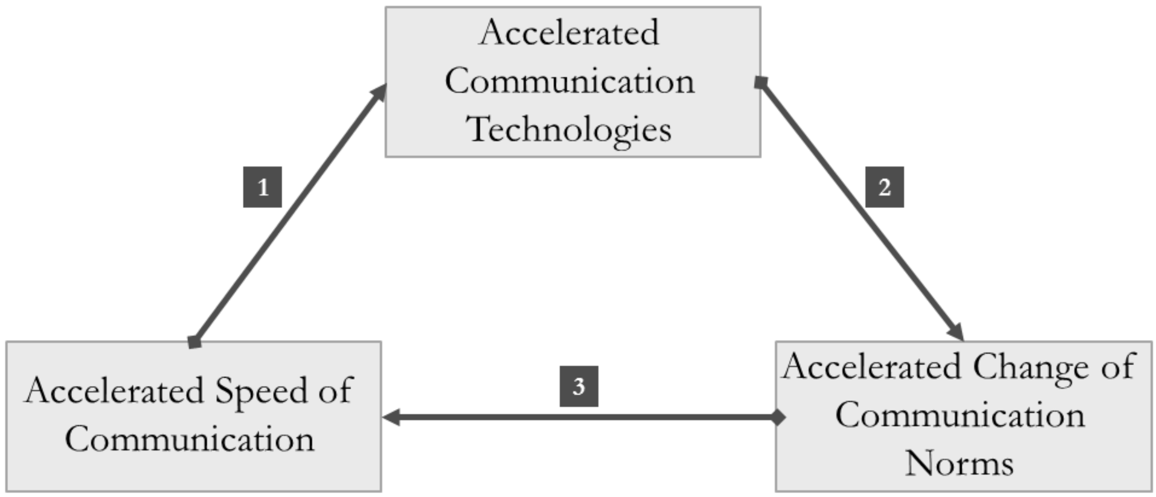

Figure 11: The Accelerating Communication Cycle (Source: Own illustration based on Rosa, 2003, p. 12)

In the communication cycle, the accelerated pace of life could take place through increasing communication speed. As a result, the volume of communicated information increases (cf. Rosa, 2014, pp. 113–118). Growing information per time unit implies that either more information is communicated in the same time period, or the same quantity of information is communicated in less time: $\frac{communicated\ information: q}{time\ unit: t} \uparrow$.

Technological acceleration could happen through communication technologies. This relates to hardware innovations like smartphones, tablets or wearables[75] as well as to internet based services like email[76], instant messaging (e.g., slack) or social media channels.

A faster change of communication norms mirrors the acceleration of social change. The consequences are unstable expectations regarding adequate response times, adequate ways of expressing information or appropriate channels of communication.

[75] Wearables are smart-digital devices that enable written and voice communications as well as continuous monitoring and alerts on personal (health) data while worn on or in the body (cf. PwC, 2014, p. 3; Tapscott, 2014, pp. 123–124).

[76] In fact, the number of received organizational emails per day has grown by approximately 91 percent from 2011 to 2018 in Germany (German Association for Information Technology, Telecommunications and New Media, 2018). Also, it is expected that from 2018 to 2022 the number of sent and received emails per day will further increase worldwide (The Radicati Group, 2018). This shows that even within the same means of communication, an increasing amount of exchanged information can be identified (accelerated speed of communication).

3.2 The Systematic Development of a Lack of Time

3.2.1 An Illustration of the Accelerating Communication Cycle

Accelerated communication technologies enable faster exchange of information between organizational members from different locations, e.g., communication via email or slack, as compared to a conventional letter (for the following cf. Rosa, 2014, pp. 118–120). Writing and sending an email takes approximately only half of the time ($\frac{1}{2}t$) that a conventional letter would do (cf. first arrow in figure 11: accelerated communication technologies saving time instead of accelerating one's speed of communication). That would imply that organizational members are able to communicate twice as much in the same time ($\frac{q}{\frac{1}{2}t} = \frac{2q}{t}$). Hence, the time-efficiency of communication is improved.

Further, an answer being available on the same day (email) instead of within two or more days (letter) triggers an impulse of accelerated communication by answering as soon as possible (behavioral response possibly leading to a rebound effect[77]). This would be accelerated further if digital communication tends to take place in real time by chatting directly (via slack). If an addressee creates a bottleneck while taking too long to reply, one can easily 'ping'[78] her via slack in order to remind her directly and accelerate receiving an answer. This creates a force to directly work on the request.

As soon as this is culturally processed, new organizational norms like the expectation of immediate response times may establish (cf. second arrow in figure 11: accelerated change of communication norms encouraged by accelerated communication technologies). If such expectations are not managed or if no regulations are implemented, a plausible reaction is communicating faster (cf. third arrow in figure 11: accelerated speed of communication through accelerated change of communication norms).

[77] If efficiency gains are overcompensated and negated by changing human behavior, we can speak of a rebound effect (cf. Binswanger, 2001, p. 120; Berkhout, Muskens, & Velthuijsen, 2000, p. 425).

[78] Pinging someone means to get a person's attention by sending a digital signal directly to this person's digital account on a platform. Hence, it is understood as a tool of quick communication.

If we now assume that the number of processed emails is four times higher than the number of written letters (4q); or that the number of processed slack messages is four times higher than the amount of processed messages via email (accelerated speed of communication); the net time consumption for correspondence has increased by 100 percent, since time would only be saved by a factor of two ($\frac{2q}{t} < \frac{4q}{t}$). This is what was described earlier as a rebound effect: Time savings through increasing efficiency are overcompensated through growth effects (cf. Binswanger, 2001, p. 120).

If accelerated communication technologies allow for time savings by a lower rate than the rate of the actual increase of communicated information, a lack of time systematically develops through the cycle of accelerated communication:

growth rate > technological acceleration rate.

The dynamics of the communication cycle show that the technologies, which enable the accelerated communication possibly lead to an accelerated change of communication norms and speed of communication (cf. Rosa, 2014, pp. 292–293).

This connection weakens the previously stated quotation of Martin (2013, p. 33) where he claims that 'our tools are way superior to what they have ever been' as a possible solution to increasing acceleration (cf. section 1.2). Indeed this argument is right, but it needs to be embedded in the empirical context. The preceding analysis on the empirical conditions of the communication cycle shows that the technologies and tools support dealing with a faster pace; at the same time, they possibly reinforce the faster pace. While Martin (2013, p. 33) gives some indication on the phenomenon of an acceleration cycle by mentioning an 'arms race' he is not giving enough attention to the consequences of such an 'arms race' (cf. section 3.2.2 and 3.2.3).

To sum up the potential scenario, while accelerated communication technologies enable time savings, they also reduce the period of validity of communicative structures and patterns of social interaction (accelerated change of communication norms). A widespread reaction is that the amount of information exchanged also increases (accelerated speed of communication). If no organizational regulations are in place to manage this cycle, a frequent attempt to cope with the information increase is using new (time saving) technologies. If that is the case, (time saving) technologies create their own necessity.

This would lead to the identified problem: The intention of accelerated communication is saving time, but the desired time reduction is 'overcompensated' if the communicated amount increases by a higher rate (growth rate through accelerated speed of communication > acceleration rate through accelerated communication technologies).

If these growth rates are systematically exceeding acceleration rates in organizations – based on missing organizational measures for sustainably managing growth requirements – digital communication leads to a chronic lack of time. In the words of the first proposition: *Digital communication leads to the experience of a chronic lack of time if an accelerating communication cycle prevails.*

The next section is dedicated to discussing the potential for the expectation of permanent availability to develop, as a result of a chronic lack of time. The discussion aims to illustrate the risk of organizations and leaders developing excessive expectations, and thereby potentially harming organizational members. If adequate measures are not taken, conditions are created which are not conducive for a sustainable work culture.

3.2.2 Permanent Availability: A Futile Attempt to Cope with a Lack of Time

In economic theory, time is treated as a valuable resource or good (cf. Mankiw, 2004, pp. 4–6); if a resource becomes scarce, its value or price increases (cf. Johnson, 1978, p. 53). A peculiarity of the resource of time is that we can only optimize available time; we cannot unleash new amounts of time. Further, there are no substitutes for time.

'The increase in the value of time (its increasing scarcity) is felt subjectively as an increase in tempo or pace. We are always in danger of being slow on the production line or late to work; and in our leisure we are always in danger of wasting time' (Johnson, 1978, p. 53). A systematic development of a lack of time would influence organizational members in a way that they have to comply with the acceleration pressure. As a result, organizational communication processes tend to take place more often (cf. Hassan, 2010, p. 369; Rosa, 2014, pp. 303–304). The dynamics of accelerated communication potentially lead to an implicit availability demand (cf. Entschew & Suchanek, 2017, pp. 354–355; Menz, 2017, p. 22). This is further driven by the possibility of working any time and everywhere (cf. Boswell & Olson-Buchanan, 2016, p. 593; Fenner & Renn, 2004, p. 184).

Organizational members may try to cope with the acceleration demands by being available permanently as well as by optimizing their way of living (cf. Hassan, 2010, pp. 371–372; Luhmann, 2004, p. 254). This becomes problematic if organizations (implicitly) request undivided commitment (cf. Coser, 1974, pp. 4–7). Coser (1974) calls institutions – that request undivided commitment – greedy institutions. Greedy institutions do not consider sustainable levels of organizational members' energy, but rather exploit their organizational members given that regulations for sustainably managing growth requirements are non-existent.

Facing work cultures of greedy institutions, organizational members increasingly develop the feeling of a lack of time (cf. Rosa, 2014, pp. 304–305). This feeling develops since undivided commitment is not leaving time for other commitments like family responsibilities or community work (cf. Coser, 1974, p. 8).

Such inter-role conflicts – between the professional role, the family role the community role and others – occur if there are role expectations placed upon a human such that compliance with one role expectation makes compliance with the other role expectation difficult (cf. Katz & Kahn, 1978, p. 204). If no rules, no training and no conducive work culture exist, the risk of such 'overcommitting' to one's professional role prevails (cf. Sullivan, 2014, pp. 1, 7).[79]

Sullivan (2014, p. 7) points out that adequate commitment is especially dependent on work culture, since it is often the case that policies and rules get neutralized by strong (greedy) cultures. Reasons for 'overcommitment' are manifold: increased business, pressing deadlines, etc.

[79] There may be cases of 'undercommitting' which are relevant for organizations too but this goes beyond the scope of this paper.

In some industries, it is well known that the job demands to work very long hours and sacrifice time for family and social pleasures for work (cf. Sennett, 2012, p. 149). Indeed, the phenomenon is nothing new. Nevertheless, its overarching scope as well as its subtlety through digital communication makes it an even more common phenomenon, thereby increasing the risk of immoral behavior including leaders having excessive expectations regarding organizational members' availability.

The major problem is that organizational members may lose control of the situation as soon as permanent availability develops into a clear expectation (change of communication norms). Also, organizational members – who more or less freely chose to be available permanently – might experience a loss of control at some point in time.

Schwartz (2007, p. 104) identifies two explanations for this. Firstly, expectations may rise 'excessively' (growing without any threshold): 'Like the mechanical rabbit at the dog-racing track that speeds along just ahead of the dogs no matter how fast they run, aspirations and expectations […] speed ahead of their realization, no matter how liberating the realization becomes.' A similar metaphor is used by Gronemeyer (2014, p. 104) by referring to a racing dog with a sausage attached in front of the nose in order to be motivated for continuous improvements.

Secondly, communication may increase in a way that organizational members feel overwhelmed and not able to cope with it (cf. Schwartz, 2007, p. 104). This may refer to deciding between adequate action patterns (change of communication norms) e.g., 'Should I be (digitally) available during weekends or not?' or 'Should I check my email account after the end of the work day or not?' In general, 'What is the right thing to do?' But, this may also refer to the quantitative increase of information (accelerated speed of communication) encouraging organizational members who are permanently available to work more.

A study on availability showed that permanently available organizational members are working more overtime hours: While permanently available employees work 6 overtime hours, employees of the control group are working 1.35 overtime hours (Hassler & Rau, 2016, p. 30). Also, the perceived workload is higher and the perception of having control is lower for permanently available employees compared to the control group (Hassler & Rau, 2016, p. 31).

In another study of Hassler, Rau, Hupfeld, and Paridon (2016, p. 33), the increased amount of overtime hours is confirmed: While permanently available employees work 7.4 overtime hours, employees of the control group are working only 2.6 overtime hours.

Seemingly, permanent availability may function as a coping mechanism in the short term. However, it only copes with the symptoms of the problem (permanently increasing information) instead of coping with a potential root cause (accelerating communication cycle). A sub problem of the accelerating communication cycle (latently) leading to permanent availability is a means-end-reversal: Accelerated communication (as a means) intends to save time (as the end). This relationship becomes reversed if this cycle takes its course: Organizational members are rather required to be more time efficient (e.g., by optimizing their life and by being available permanently) as a means to keep pace with acceleration (end).[80]

Luhmann (2007, p. 156) identifies that acceleration receives a form of absolute justification. Acceleration becoming an end in itself was already addressed by Nietzsche (2000, p. 216) in 1882: 'Humans start to be ashamed of calmness; long contemplations are almost leading to feelings of regret or remorse. They are thinking with the watch in the hands; having lunch with one eye on the financial newspapers. One is living as somebody who could permanently miss out on an opportunity. Better doing something, than nothing' (own translation). This is similar to the social anxiety called 'FoMO' (fear of missing out) functioning as a motivational force to be as productive as possible (cf. Przybylski, Murayama, DeHaan, & Gladwell, 2013). FoMO refers to permanent worries of missing great choices, often encouraged by content from social media channels (cf. Buglass, Binder, Betts,

[80] The identification of this sub problem builds on Max Weber's (1958, pp. 53, 70–73) argument of a reversal of the means-end-relationship of one's occupation and a good life: One's occupation or the way of earning money was supposed to function as a means to a good life (end). A reversing relationship reveals that one's conduct of life or use of freedom of action (means) is supposed to adjust according to one's occupation (end). In other words, one's occupation becomes an end in itself. According to Weber (1958, p. 72) this phenomenon is constitutive for the ethics of capitalistic cultures, which is the consequence of a long societal education process. In this sense, a similar development is identified referring to the acceleration phenomenon.

Underwood, 2017, pp. 248–249; Przybylski, Murayama, DeHaan, & Gladwell, 2013, p. 1841) (FoMO is also part of the discussion in appendix II).

Luhmann (2004, pp. 278–279) describes a similar perspective implying that no action is lost time. Luhmann (2007, p. 156) characterizes this phenomenon as 'target variable acceleration ideology' which gives a higher priority to increasing acceleration than on the actual goals. As a result, organizational goals may change at a faster pace. This is confirmed by a study of Bruch and Menges (2010, p. 3): 75 percent of the surveyed employees state: 'My company's priorities frequently change'.

In the next section, conditions in over-accelerated organizations are discussed. Over-accelerated organizations[81] can be understood as organizations following the 'target variable acceleration ideology' outlined above, thereby creating a chronic lack of time. The introduction of the conditions in such organizations aims at characterizing particular risks if the reaction to a chronic lack of time is permanent availability and further optimization methods instead of investing in more sustainable measures.

3.2.3 Without Countermeasures, Organizations Will Burn Out

Acceleration can be seen as an arms race (cf. Martin, 2013, p. 33). '[C]ompanies get into the habit of constant change, or perpetual loading. This pattern deprives workers of any hope of retreat for recharging their energy. To compensate, they hold back their efforts whenever they can, even if doing so hampers the company' (Bruch & Menges, 2010, p. 3).

Bruch and Menges (2010, pp. 2–3) studied around 600 companies with regard to their 'frenetic pace'. They identified companies being caught in an acceleration trap, meaning they accelerate without a clear threshold implying a 'target variable acceleration ideology', as well as frequently changing organizational requirements. In such over-accelerated organizations, chronic overloading became the normal state (cf. Bruch & Menges, 2010, p. 2).

[81] A list of questions which may indicate high probability of over-acceleration within an organization can be found in appendix III.

'[I]f the leader gets greedy, demanding the same level of urgency every day, the energy will fizzle and performance will sink, despite employees' heroics' (Bruch & Menges, 2010, p. 6). Yet, 'too often the CEO tries to make this furious pace the new normal' (Bruch & Menges, 2010, p. 2). Time pressure intensifies through such 'excessive' expectations (Luhmann, 2007, p. 149). Yet, Simons (2005, pp. 157–158) is pointing out the responsibility of managers to protect employees e.g., from excessively using the possibility of a home office, instead of having 'excessive' expectations.

If this sort of protection is not developed, possible risks are defection of the best employees or a scattered organization's focus potentially confusing stakeholders (cf. Bruch & Menges, 2010, p. 2). 80 percent of the employees in over-accelerated organizations indicate the following 'I work under constantly elevated time pressure' (cf. Bruch & Menges, 2010, p. 3). This constantly elevated time pressure reflects the possible development of a lack of time through acceleration. In particular, if powerful leaders become too greedy, thus causing a chronic lack of time, employees may 'burn out' (cf. Rosa, Dörre, & Lessenich, 2016, pp. 62–63). The specific focus of this section is to address the second proposition: *If a chronic lack of time prevails, organizations and their members may* 'b*urn out*'.

This article does not refer to 'burn out' in a medical sense; rather the term functions as a collective term for the consequences delineated below. To understand what is meant by 'burning out'; I am deriving three consequences to summarize the previously described conditions. These three consequences are based on concepts from organizational sociology (alienation), from organizational psychology (learned helplessness), as well as from the philosopher Albert Schweitzer (scattering). 'Burning out' is understood as the practical embodiment of the phenomena alienation, learned helplessness as well as scattering which will be delineated subsequently. These three phenomena mainly relate to the problem of not understanding one's conditions or to not having control over the conditions. All three phenomena culminate in organizational members losing their motivation. Their energy level fizzles peaking in 'burning out' which describes a feeling of having no energy left.

According to Bruch and Menges (2010, p. 6), '[r]elentless acceleration leads to loss of focus, an uncontrolled flood of activities, organizational fatigue, and burnout'. An organization's focus becoming scattered is highly probable (cf. Bruch & Menges, 2010, p. 2). Scattering[82] as a possible consequence of acceleration was already discussed by Schweitzer (1923). Although his work refers to an age and culture that is different to our conditions, he describes phenomena, which are recurring and intensifying in the digital age.

According to Schweitzer (1923, pp. 10–12), scattering implies handling ever-increasing quantities of information leading to a degradation of a person's cogitation. The more one is caught in the self-made conditions of action, the less one is able to reflect on these conditions of action (cf. Schweitzer, 1923, p. 9).

As a result, culture declines. Schweitzer (1923, p. 21) defines culture as the educational progress of humans and the collective (e.g., organizational member within the organization). Culture involves the ability of humans to understand the social system as a whole (Schweitzer, 1923, pp. 9–11). A human needs to be able to understand reality in a way that one is able to influence conditions by appropriate means. Schweitzer (1923, p. 11) points out that this ability is frequently undermined due to scattering.

With regard to accelerated communication, humans know about more and more information (accelerated speed of communication), but if they are not able to reflect on it appropriately, understanding and controlling the information becomes difficult.

As implied in the previous section, a feeling of losing control may develop due to this quantitative increase of information (accelerated speed of communication) or due to permanently rising expectations (accelerated change of communication norms). Often, alienation is characterized by the feeling of losing control and a lack of understanding one's conditions (for more details see for example Dahrendorf, 1959, p. 78; Jaeggi, 2016, pp. 20–21, 24, 80; Karger, 1981; Marx & Engels, 2010; May, 1985, p. 54; Paul & Suchanek, 1994; Seeman, 1959). Alienation is a term with diverse definitions and blurring distinctions (cf.

[82] Scattering is understood as a lack of focus as a systematic result of handling more and more information.

Jaeggi, 2016, p. 22). For understanding consequences of a chronic lack of time, I focus on a specific aspect of alienation:

'Conditions (of communication) develop their own autonomy' (cf. Entschew & Suchanek, 2017, p. 362; Jaeggi, 2016, pp. 84–91; Paul & Suchanek, 1994, p. 1). As we saw previously, accelerated communication potentially creates its own necessity based on the acceleration cycle.

Organizational members may not be able to understand this acceleration cycle. Further, they may experience an inability to shape their organizational environment, including the expectations they are faced with. This generates the feeling of losing control. However, organizational members are supposed to largely conform to the corresponding (excessive) organizational expectations, unless they leave the organization or unless they are able to shape organizational expectations.

In other words, they are caught in the (partially self-made) organizational conditions and thereby incrementally become alienated from these conditions. This is also reflected in the study of Bruch and Menges (2010, p. 3): '[If] leaders neglect to call a halt to periods of furious activity, employees feel imprisoned by the debilitating frenzy'.

This form of alienation is linked closely to the concept of learned helplessness. The perception of one's environment as being autonomous and not being avoidable has been coined learned helplessness (Carlson, Miller, Heth, Donahoe, & Martin, 2010, p. 380). Mental stress[83] or disorders[84] can result from such experienced absence of control if the consequences are expected to be bad (Abramson, Seligman, & Teasdale, 1978, pp. 64–70).

When humans experience situations 'in which they are powerless to control the events that happen to them, they may become depressed, and their motivational level may decrease' (Carlson, Miller, Heth, Donahoe, & Martin, 2010, p. 380).[85]

---

[83] According to DIN EN ISO 10075-1 (2000) mental stress is defined as all detectable influences that impact humans from the outside.

[84] Death and permanent disability from overwork are extreme forms of disorder. In Japan, this phenomenon is called 'Karoshi' (cf. Iwasaki, Takahashi, & Nakata, 2006; Kanai, 2009).

[85] The basic experiment regarding learned helplessness was conducted by Seligman and Maier (1967); the results were refined and revised in different subsequent articles such as Maier and Seligman (1976), Abramson, Seligman, and Teasdale

It has been shown that 'burning out' has different consequences, which relate to organizational members like the phenomena of alienation, learned helplessness and scattering. From the organizational perspective, it can be assumed that these phenomena also negatively influence the organizational member's performance, thus creating an organizational risk (cf. Bruch & Menges, 2010, p. 6).

Based on the delineated risk of 'burning out' due to a chronic lack of time, I claim that organizations need to invest in a better understanding of empirical conditions like accelerated communication as well as relevant normative ideals. Based on a better understanding, organizations and their leaders are better equipped to derive adequate measures like investing in regulations and routines.[86]

Both the understanding and the ensuing investments rely on a certain attitude. Put differently: Investments can only be successful if organizational members – especially leaders – actually embody the underlying intention regarding normative ideals (such as sustainable long-term success) and this is often influenced by the work culture (cf. Sullivan, 2014, p. 7). Vice versa, leaders also have the power to influence the work culture based on their intentions and abilities.

The competence of moral discernment requires having an adequate understanding of empirical conditions, as well as normative ideals which include one's intentions, so that reasonable investments can be identified. The analysis showed that organizations and their leaders potentially get caught in acceleration cycles leading to a chronic lack of time, which encourages immoral respectively irresponsible behavior like having excessive expectations. For this reason, the first recommendation to be derived in this paper refers to moral

(1978), Seligman and Nolen-Hoeksema (1987) or Soames Job (2002). For the basic experiment, the researchers put a group of dogs into a box in which they were exposed to inescapable electric shocks. Subsequently, each dog was placed into another box where they went through different trials in which they received a warning signal before the electric shock was triggered. In that situation, escape was possible by just crossing a small barrier to the other side of the box. While dogs of the control group quickly learned to escape the aversive stimulus of the electric shock by just crossing the barrier, the dogs that had perceived the inescapable shocks before, failed to learn this escaping behavior. These dogs just sat in the box and received the shock, as if they learned they cannot influence the consequences of their actions. They have learned to be helpless.

[86] Further, it is important that such rules can be implemented reasonably, e.g., rules need to be embedded into relevant organizational requirements. There may be reasonable exceptions justifying availability after working hours. Hence, new rules should align with the abilities of the organization and its members, and hence not endanger the organizations survival.

discernment. The focus of the subsequent section is to address the third proposition: *By investing in moral discernment, organizational members may better understand the risks of a chronic lack of time and the suitability of investing in further measures.*

4. What Should Organizations Do?

4.1 Invest in Moral Discernment

As implied in various sections of the paper, the prevention of a chronic lack of time due to digital communication is difficult if organizational members and the organization in general are not aware of this issue. That is why the first step organizations need to take is to understand the problem at hand. Hence, organizations have to better understand their empirical conditions as well as relevant normative ideals. Both of which may come into conflict, especially when organizations are faced with the pressure of time and fast deadlines. Being exposed to the pressure of time seems to make it impossible for one to take time to reflect on the fact that it is happening (cf. Luhmann, 2007, p. 143). This conflict intensifies when time pressure leads to a stronger focus on own needs at the expense of others, less cooperation and risky behavior in general (cf. Saraiva & Iglesias, 2015, pp. 9–10).

Training of moral discernment is supposed to enable organizational members to better identify the 'the right thing to do' in a fast-paced environment. Moral discernment describes the reflection competence of 'good' decision-making, based on a moral evaluation of actions and expectations including both the temporal and the social dimension.

It has to be noted that, despite the significance of this competence, moral discernment is a rather elusive construct. It can be understood as 'profound intuition' which depends on 'lifelong learning' as well as gathering and reflecting upon personal experiences. For this reason, the theoretical explanation of moral discernment and the recommendation regarding specific training of moral discernment contained in this thesis are too narrow a scope for reality. Grasping the whole meaning of moral discernment via specific training and concepts does not suffice in order to achieve its ambitious claim of doing 'the right thing' or avoiding bad. However, based on its relevance for organizations in accelerated times, I consider it relevant to introduce this competence and to outline the meaning of it as clearly as possible.

Here, moral decision-making is supposed to enable a sustainable (temporal dimension) energy level of organizational members (social dimension) in order to avoid the aforementioned risks of a chronic lack of time. Hence, training of moral discernment in organizations is an investment in managers and encourages a sustainable culture. Based on moral discernment, organizations and their leaders better understand the relevant normative ideals and empirical conditions, so that they can implement adequate measures.

Facing requirements of over-accelerated organizations, organizations and their leaders tend to neglect normative ideals like sustainability or long-term success, especially when moral discernment is not trained. When judging expectations and actions by mainly including requirements of over-accelerated organizations, leaders may become greedy, short-sighted and have excessive expectations towards their staff. In that case, decision-making is mainly based on direct empirical triggers like competition or growth requirements.

Especially in times of accelerated change of communication norms, organizational requirements change frequently (cf. section 2.2 and section 3). However, this is not a reason for letting organizational requirements dominate decision-making, but rather a reason for spending time on understanding them, questioning and moderating them where necessary, especially in those cases when normative ideals are not considered in decision-making.

Understanding empirical conditions includes understanding potential unintended consequences – like a chronic lack of time – in future time periods. Leaders need to consciously reflect on the fact that future time periods will come into their judgment of expectations and actions. Otherwise, the neglect of future time periods (managerial myopia) may lead to a neglect of sustainability as a normative ideal.

If leaders unquestioningly integrate (frequently changing) requirements into their judgment, their expectations are very likely to become excessive and trigger acceleration cycles instead of fulfilling their responsibility to also protect employees (e.g., from using their home office excessively) (cf. Simons, 2005, pp. 157–158). This is what can be considered as immoral behavior since judgement is primarily derived from specific organizational (often short-term) interests, without giving consideration to generalizable, normative goals like sustainability. In this case, insufficient consideration is given to whether this behavior could harm other organizational members.

Hence, '[...] it is all the more important that not only firms, but also their stakeholders [including organizational members], invest in the ability of moral discernment as the most elementary prerequisite for sustainable social cooperation for mutual advantage' (Suchanek, 2017, p. 88). If no education concerning ethical reasoning is offered to managers, imprudent decision-making is highly probable and this creates ethical risks for the manager and the organization as a whole (cf. Litschka & Karmasin, 2012, p. 230).

Litschka and Karmasin (2012, pp. 231–233) recommend installing training on ethics: '[...] teaching some basic reflection models on ethics and solving typical dilemma situations. Awareness raising, discursive abilities, moral competences, intersubjective agreements, and personnel development are in the center of such programmes'.

My recommendation also focuses on training. It is important to have workshops and other interactive training sessions for developing firm moral discernment. Typical situational conflicts through accelerated communication in working life need to be reflected on and discussed.

The probability of the success of such training very likely depends on the possibility of applying abstract ideas and concepts to specific situations. Hence, the communication of values and other abstract notions like long-term success is important, but it may not suffice to empower organizational members to better understand their environments and derive the 'right thing to do'. The abstract notions have to be discussed by referring to particular situations and critical issues (e.g., 'What should be done if organizational members perceive an overload of information?') or by simulating conflicts via role plays and social experiments.

This sort of training hones the important competence of asking and answering practically relevant questions. This skill is a constitutive condition for a working life that is free of the experience of alienation and helplessness (cf. section 3.2.3; Jaeggi, 2016, p. 89). Reflections and discussions could be systematized by applying ethical heuristics (cf. Suchanek, 2015). It is important that organizational members are educated in the ability to 'draw the line' as well as to mutually agree on things to do and not to do as well as on things to be expected and not to be expected.

This competence of 'good' decision-making is reliant on reciprocal expectations (e.g., through routines) since '[e]veryday life is structured by reciprocal expectations' (Luhmann, 1977, p. 46).

Sufficiently stable routines form the foundation for organizations and their members (cf. Gehlen, 2004, p. 20). Due to the predictable character of routines, organizational members can take a known action sequence for granted in the future, which is accompanied by the development of reliable expectations (cf. Misztal, 1996, pp. 102–111).

Although, organizational members rely on sufficiently stable expectations and routines, this cannot be guaranteed in times of accelerated communication (cf. section 2.2 and section 3). Also, the availability of stable (moral) laws and traditions cannot be taken for granted. Hence, expectations have to frequently adapt in order to enable adequate judgments in terms of legitimate expectations (cf. Luhmann, 1977, p. 46). Given the complexity of the modern day empirical conditions, this is a challenging task. Being able to identify frequently changing expectations is highly demanding (cf. Suchanek, 2017, p. 88).

Organizational members are required to decide autonomously between a variety of possible expectations and orientations. The general maxim to one's behavior is less about compliance and discipline, but more about one's own decisions and personal initiative (cf. Ehrenberg, 2010, pp. 7–8). Organizational members[87] are increasingly being required to rely on

[87] It was stated in the introduction that organizations need to invest into their organizational members' moral discernment. Here, the focus lies on managers due to their overarching responsibilities as well as far-reaching decision-making power. However, the analysis also showed that employees need to sufficiently understand and assess their conditions including the derivation of 'the right thing to do'. Hence, it is recommendable that managers invest in training of moral discernment for their members as well.

their (hopefully well-trained) moral discernment. 'Yesterday, social rules demanded conformists, perhaps even automatons; today, initiative and mental capacities are required' (Ehrenberg, 2010, p. 9).

However, while solid moral discernment is a significant competence when facing accelerated environments, some routines and regulations are necessary in order to provide reliable points of orientation in the fast-paced environment. Based on an understanding of empirical conditions and normative ideals regarding acceleration cycles, moral discernment encourages deriving suitable investments, including the introduction of potential regulations and routines to break through an acceleration cycle and a chronic lack of time.

Hence, the second recommendation refers to institutionalizing measures to counteract the potential development of a chronic lack of time. These measures are supposed to enable organizational members to have breathing room, as well as room for reflection, thus encouraging a more sustainable level of energy and more profound judgments. It should be clear that investments like these will only be effective if organizational members, especially leaders have a certain attitude and certain intentions (cf. Sullivan, 2014, p. 7).

4.2 Invest in Regulations and Routines

In this section, I would like to provide practical examples of possible measures to cope with permanent acceleration. I identified two forms of measures: situational regulations and preventive measures such as regular routines.

1. The first form can be categorized as situational regulations implemented in organizations as soon as a chronic overload of its members is identified. As explained previously, organizations need to understand and reflect on their empirical conditions in order to identify the necessity of such measures.

Some organizations provide helpful practical examples of situational regulations:

- Executives of Phoenix Contact (German producer of industrial electrical and electronic technologies) recognized that employees became overloaded. Executive vice president and board member Gunther Olesch requested managers to categorize all projects (A: necessary, B: important but can be postponed, C: can be delayed for two years or cancelled). Olesch explains: 'We have to cancel activities – otherwise we burn out and we will not come out of the crisis in fit shape' (cf. Bruch & Menges, 2010, p. 4).

- After deep organizational changes, Microsoft announced there won't be any changes for a full year. General manager for Human Resources, Ulrich Holtz explains that this restriction 'helped employees recover from the immense efforts of our restructuring' (cf. Bruch & Menges, 2010, p. 5).

Such interventions do not imply restrictions of progress and innovation. They do imply that breathing room for organizational members should be actively encouraged to enable a sustainable level of energy as well as room for reflection.

In the words of Bruch and Menges (2010, p. 6): 'Be aware of the exertion that underlies every burst of effort, and work toward making sure the firm's energy level is sustainable'. So, even (or especially) if there is time pressure, organizations need to reflect and respond to it.

2. The second form of measures for counteracting the potential for a chronic lack of time can be categorized as preventive measures, namely, regular routines. Luhmann (2007, pp. 158–159) proposed institutionalizing 'non-session weeks' in order to enable open space for reflection. In 'normal' day-to-day-business, such reflections are hardly possible.

A current example is delivered by Microsoft, where the so-called 'think week' became a stable institution within the organization (cf. Bruch & Menges, 2010, p. 6). This week was initiated by Bill Gates who went to a cottage for a 'think week' every spring and fall (cf. Bruch & Menges, 2010, p. 6). There, he focused on reflecting business ideas that were submitted by his employees.

Indeed, he worked intensively during this week, but it allowed him to focus on one particular task, which would not have been possible within 'normal' day-to-day-business (cf. section 3.2.3: scattering). Today, this 'think week' is a Microsoft institution followed by diverse managers. This enables a stable routine to be maintained. It can be relied on and it provides open space for reflection on one crucial aspect.

Furthermore, interruption of organizational interdependence is important in order to embed oneself into the chain of causes and effects of one's different professional and private roles as well as of society as a whole. Simple examples are being offline during holidays, activating a cell phones flight mode during family time as well as clear regulations regarding expectations on availability (e.g., splitting availability responsibilities at weekends among team members).

However, in times of permanent connectivity, such interruption cannot be taken for granted. Hence, interruption of organizational interdependence needs to be coordinated by organizational structures and managers. Commitments like these are necessary for enabling open spaces for reflection and an 'outside perspective'. This is similar to the proposed 'think week' but, while a 'think week' enables a person to concentrate on specific work tasks by interrupting other organizational influences; this form of interruption is supposed to interrupt any organizational influences. In this way, so-called 'tunnel-vision' can be avoided.

Another regular routine introduced by Bruch and Menges (2010, p. 6) refers to feedback systems. Unlike one would expect, feedback is supposed to identify too much work instead of too little work. An example deploying such feedback culture is Serview; a small, but highly productive German IT consulting firm, which generated 25 percent average annual growth within the last four years:

'Serview, [...] asks employees to watch out for colleagues who may be working too hard. Workers receive monthly feedback from managers about (among other things) whether they are taking adequate measures to rest and recharge. Workers also fill out a monthly self-assessment on the same issues. The feedback system caused a pronounced behavioral change. Employees look for symptoms of excessive labor and over-acceleration in themselves and their colleagues, and they strive to develop solutions as problems arise' (Bruch & Menges, 2010, p. 6).

This example nicely shows that organizations indeed have the power to work on a strong cultural ideal, as well as to adapt motivational forces in order to not exploit organizational members, but rather to build up a sustainable energy level.

As indicated earlier, strong moral discernment, which encourages an adequate understanding of acceleration as well as a clear (sustainable) attitude on behalf of the organization and its members, is requisite for the successful implementation of such measures.

5. Conclusion

In conclusion, this paper outlined the acceleration theory of Rosa (2003, 2014) and transferred it to digital communication. An accelerating communication cycle was delineated as well as transferred to the specific example of communicating via letter, email and slack. This led to the derivation of the first proposition: *Digital communication leads to the experience of a chronic lack of time if an accelerating communication cycle prevails.*

The subsequent sections discussed the risks of a chronic lack of time in order to address the second proposition: *If the chronic lack of time prevails, organizations and their members may 'burn out'.* Then, relevant measures in order to cope with the risks were delineated in order to substantiate the third statement: *By investing in moral discernment, organizational members may better understand the risks of a chronic lack of time and the suitability of investing in further measures.* The key message of this paper is that technologies need to be used sustainably and conscious decisions regarding where to draw the line need to be made, instead of allowing self-reinforcing acceleration processes determine where to (not) draw the line. This necessitates well-trained moral discernment.

6. Appendix

6.1 Appendix I: The Structural Force

Accelerated social change is driven through the structural principle of functional differentiation (cf. Rosa, 2003, p. 14, 2014, pp. 295–296). This view is mainly advocated in the context of Luhmann's system theory (cf. Luhmann, 1995, 2013; Rosa, 2014, pp. 95–96, 297–308). Functional differentiation describes the formation of system differences within one system. This differentiation is functional because subsystems receive their identity through the fulfillment of functions for the overall system (cf. Luhmann, 1989, p. 144). Within organizations, the different departments (e.g., marketing, finance or ethics) may function as subsystems aiming to contribute to the organization's purpose.[88]

Functional differentiation implies an autonomization of different closed (sub)systems (cf. Gerecke, 1998, pp. 27–28). This possibly leads to an acceleration of processes since non-functional or non-system factors are excluded[89]; in other words, processes can be more efficient and time is saved (cf. Gerecke, 1998, p. 27; Luhmann, 1977, p. 30). This does not mean that they operate without any influence from their external environment. The subsystems operations are rather encouraged through their environment (cf. Gerecke, 1998, p. 27). At the same time, interdependencies of the subsystems increase: The individual subsystems are dependent on the functioning of the other subsystems (cf. Gerecke, 1998, p. 28).

Seemingly, the direction of the overall impact of functional differentiation is not exactly clear. While processes in subsystems may become more autonomous and faster based on the exclusion of non-system factors; the subsystems are also (inter-)dependent since they may have to adapt if other subsystems change. However, the following discussion focuses

[88] From the macro-level, politics, science, art, the economy and law are subsystems of the overall system 'society' (cf. Gerecke, 1998, p. 19; Rosa, 2003, p. 14).

[89] An insufficient mutual consideration and understanding of the operations of other subsystems may lead to unintended consequences (cf. Gerecke, 1998, p. 28). In this case, this may be the acceleration cycle and the systematic development of a lack of time.

on the effects of the increasing specialization (exclusion of non-system factors) of subsystems as a driver for acceleration.

The inherent specialization and increasing efficiency of subsystems increases complexity in terms of tremendous contingencies and possibilities which are created (cf. Luhmann, 1977, pp. 32, 45; Rosa, 2003, p. 14). An exponential increase of possibilities leads to the 'temporalization of complexity': the attempt to sequentially accumulate possibilities for the upcoming future; in other words, the upcoming future is managed as a reservoir of later choices (cf. Luhmann, 1990, p. 141, 2004, pp. 238–239; Rosa, 2014, p. 297). Time is used as the 'extension of choice'. Hence, time compensates the problem of choosing between possibilities; a problem which is intensified by growth because more and more possibilities are generated (cf. Luhmann, 2004, p. 239).

This temporalization of complexity leads to acceleration pressure (cf. Rosa, 2014, p. 298). Subsystems of organizations (e.g., marketing, finance or ethics) are required to permanently optimize and connect operations within their subsystem as well as with other subsystems in order to realize as many of the accumulated options as possible. Operations tend to take place permanently (cf. Rosa, 2014, pp. 303–304). As soon as we are done with a task, the next task that we chose to work on awaits for us due to the accumulation of possibilities in the form of tasks.

The constant processing of organizational subsystems leads to increasingly unstable expectations because every subsystem creates new conditions at an increasing pace (cf. Rosa, 2014, pp. 301–302). Through the increasingly fast-changing conditions, expectations need to be revised and adapted at increasingly shorter intervals: The force of structural differentiation accelerates social change (cf. figure 10). In earlier societies (with no or less functional differentiation), future time periods could be anticipated without remarkable disappointments (cf. Gerecke, 1998, p. 21; Luhmann, 2012, p. 167; Nassehi, 2008, p. 343). Thus, expectations were more stable. This was (among other things) possible through the continuation of traditions (cf. Nassehi, 2008, p. 343).

Nonetheless, traditions represent the slowness of humans (cf. Marquard, 2015, p. 226). Although traditions enable stable expectations, they are often neutralized in order to accelerate processes (cf. Marquard, 2015, p. 226). In short, functionality (including incentives) replaces traditions. This can be categorized as the power of markets attempting to rationalize anything for the sake of profit opportunities (cf. Weber, 1978, p. 638). The neutralization of traditions is mirrored in the results of the study on value orientation of generation Y[90] in the German-speaking area: Only 42 percent consider 'tradition' something to be treasured (Lewe & Pfeil, 2014a, p. 3, 2014b, p. 5).

The study further reveals that only 33 percent consider 'compliance with rules' to be important. Rules also enable stable expectations (Lewe & Pfeil, 2014a, p. 3, 2014b, p. 5). Non-compliance with rules undermines an important organizational asset: the reliability of mutual expectations. In Luhmann's (1977, p. 45) words: '[...] common assumptions about an enduring present reality have to be replaced by a succession of different events and actions, thus temporalizing complexity'. Seemingly, the logic of functional differentiation leads to a faster expiration of (organizational) expectations. As a result, organizational members encounter problems in assessing what is expected from them/ 'what is the right thing to do'. This provides another argument for investing in moral discernment.

[90] Generation Y is characterized as the workforce that was born after 1980; they grew up with the internet and digitalization. Organizations increasingly report challenges in adequately addressing this generation as organizational members (cf. Lewe & Pfeil, 2014, p. 2).

6.2 Appendix II: The Cultural Force

To understand the third acceleration force, I am reconstructing the cultural forces driving the accelerated pace of life. Concluding that economic growth necessitates increasing social activities like working faster is not sufficient in order to explain this cultural motor (cf. Rosa, 2014, pp. 280–281). Instead, it will be examined that the economic force is not a cause, but rather an effect of acceleration (cf. Rosa, 2014, p. 292). In fact, the cultural self-image is driving the acceleration of the pace of life. The self-image is not about an adaptation to external (economic growth) forces, but rather about increasing autonomy (cf. Rosa, 2014, p. 280). This is confirmed by studies on the value orientation of generation Y in the workforce (cf. Hewlett, Sherbin, & Sumberg, 2009; Lewe & Pfeil, 2014a, 2014b).

Ehrenberg (2010, p. 7) also describes the change from compliant humans to autonomous beings as the modern ideal. According to organizational researchers and sociologists, young generations tend to think like restless entrepreneurs (cf. Cederström & Spicer, 2015, p. 22; Ehrenberg, 2010, pp. 7–9; Salecl, 2011, p. 5). I am summarizing this cultural change as a change from existential fears to optimization fears: While previous generations were busy with hardly realizing a single choice, current generations are busy with optimizing the abundance of choices.

Examining widespread, motivational forces of (generally secular) cultural self-images sheds light on this cultural change. Rosa (2014, pp. 283–286) identifies motivational forces which trigger the acceleration (of one's pace of life):

1. The first force refers to the societal fear of not being able to keep up with the pace. It is about the permanent danger of falling behind because one was not able to keep pace with progress (cf. Rosa, 2014, pp. 284–285). This leads to permanent aspirations of identifying and optimizing available choices while fearing to miss out on valuable choices. This is similar to what is called 'FoMO': fear of missing out (cf. Przybylski, Murayama, DeHaan, & Gladwell, 2013).

   FoMO is a social anxiety referring to a compulsive concern of missing great opportunities, often evoked through input from social media channels (cf. Buglass, Binder, Betts, Underwood, 2017; Przybylski, Murayama, DeHaan, & Gladwell, 2013, p. 1841). FoMo is especially relevant for younger generations (cf. Przybylski, Murayama, DeHaan, & Gladwell, 2013, p. 1841). 'Defined as a pervasive apprehension that others might be having rewarding experiences from which one is absent, FoMO is characterized by the desire to stay continually connected with what others are doing' (Przybylski, Murayama, DeHaan, & Gladwell, 2013, p. 1841).

The internet accelerated information- and communication processes tremendously; it opens up diverse new possibilities and with that, more choices. As a result, the degree of the feeling of 'missing out on something' increases systematically (cf. Gronemeyer, 2014, p. 103; Rosa, 2014, p. 293). The decision for one choice is involuntarily connected to missing out on diverse other choices (cf. Mankiw, 2004, pp. 4–6; Rosa, 2014, p. 293; Schwartz, 2007, p. 123). As a result, organizational members experience the psychological effects of trade-offs or opportunity costs, since these costs increase with the increase in the number of choices (cf. Schwartz, 2007, pp. 119–126). Dissatisfaction increases systematically as more choices come up. At the same time, this may function as a motor to realize as many choices as possible or to be as productive as possible as one way to improve satisfaction. This is possible by accelerating one's pace of life.

Though the literature mainly refers to FoMO in private contexts, the underlying driving force can be transferred to professional contexts as well. A choice or opportunity could be a prestige project, which is assigned to an organizational member.

2. The second force refers to prosperity through paid work (cf. Deutschmann, 2001, p. 99; Rosa, 2014, p. 285). Gaining more and more income is equivalent to increasing the amount of choices (cf. Varian, 1992, p. 104). As just explained, having and realizing choices can be considered as the first motivational force of accelerating (one's pace of life) further and further (cf. Deutschmann, 2001, p. 175). Seemingly, this second force is driven by the first force of the fear of falling behind or missing out on valuable choices.

3. The third force relates to the pursuit of 'eternal life'. Indeed, this force is connected to the fear of the finiteness of life (death). In secular societies, human beings unconsciously look for ways of dealing with their finite nature (cf. Rosa, 2014, p. 289).[91] The question of the meaning of death is implicitly connected to the question of a good life (cf. Rosa, 2014, p. 289). The cultural answer in secular societies refers to a good life as a fulfilled life (cf. Rosa, 2014, p. 290). Life is understood as the opportunity to exploit one's time on earth by seizing all possible choices (cf. Gronemeyer, 2014, pp. 103–105).

   This is especially mirrored in the work of Blumenberg (2013) where he examines the human finiteness of life as the central problem of time: The problem arises through the distinction between objective time (the 'infinite' amount of time in the world) and subjective time (the finite amount of time in one's life). Objective time relates to the whole (objective) world and involves the enormous amount of choices and time of the world which could theoretically be realized (cf. Luhmann, 2007, pp. 149–150). On the other hand, subjective time involves the actual horizon of possibilities based on one's capabilities to realize choices. This means that one's subjective world is limited through individual capabilities and capacities like lifetime or one's degree of optimization.

   A force of accelerating the pace of life arises through the (unconscious) pursuit of matching the objective and the subjective world, which is in fact not possible (cf. Gronemeyer, 2014, p. 103; Marquard, 2015, p. 220). The cultural ideal of realizing as many choices as possible (i.e., attempting to match the objective and the subjective world), functions as a force for increasing the pace of life: The faster we go through respective choices, the more choices we can realize. 'Those who live twice as fast can realize twice as many opportunities' (Rosa, 2014, p. 291, own translation). To

[91] In protestant societies, human beings consciously look for ways of dealing with their finite nature. There is a common promise of 'eternal salvation' after death, which cannot be acquired; but, it is rather a predetermined destiny, (cf. Weber, 1958, pp. 103–104). Still, humans want to gain insight about whether they would be chosen. 'Worldly activity' is seen as the best means of obtaining self-assurance of being chosen for eternal salvation. This makes labor being justified to promote the glory of God (cf. Rosa, 2014, p. 284; Weber, 1958, pp. 106–112).

say it with the words of Gronemeyer (2014, p. 103, own translation): 'What lacks in the length of life is made up by acceleration'.

Based on these motivational forces, the desire for acceleration (and growth) continues to be a constitutive part of the cultural self-image (cf. Rosa, 2014, pp. 285–286). One needs well-trained moral discernment in order to understand and deal with it reasonably. This applies, in particular, to younger generations who have been socialized with this cultural self-image.

6.3 Appendix III: Does Your Company Have An Acceleration Culture?

This list of questions indicates potential over-acceleration of an organization (cf. Bruch & Menges, 2010, p. 5):

'If you answer 'yes' to more than five of the following questions, then chances are good that your company is caught in the acceleration trap. If you answer 'yes' to more than eight, it's extremely likely that you're trapped.'

- 'Are activities started too quickly?'
- 'Is it hard to get the most important things done because too many other activities diffuse focus?'
- 'Is ending activities considered a sign of weakness?'
- 'Are projects carried out pro-forma because people fear ending them publicly?'
- 'Is there a tendency to continually drive the organization to the limits of its capacity?'
- 'Is it impossible for employees to see the light at the end of the tunnel?'
- 'Does the company value attendance at work and meetings more than goal achievement?'
- 'Does it value visibly hard effort over tangible results?'
- 'Do employees talk a lot about how big their workload is?'
- 'Is busyness valued?'
- 'Are managers expected to act as role models by being involved in multiple projects?'
- 'Is 'no' a taboo word, even for people who have already taken on too many projects?'
- 'Is there an expectation in the organization that people must respond to emails within minutes?'

- ‘Do countless people routinely get copied on emails because employees are trying to protect themselves?’
- ‘In their free time, do employees keep their cell phones or messaging devices on because they feel they always need to be reachable?’

7. References

Abramson, L. Y., Seligman, M. E., & Teasdale, J. D. (1978). Learned Helplessness in Humans: Critique and Reformulation. *Journal of Abnormal Psychology*, *87*(1), 49–74.

Augier, M., & Mola, L. (2016). Reshaping Organizations with Social Networks and Collaboration. In F. D'Ascenzo, M. Magni, A. Lazazzara, & S. Za (Eds.), *Blurring the Boundaries through Digital Innovation: Individual, Organizational, and Societal Challenges* (pp. 9–20). Basel: Springer International Publishing.

Berkhout, P. H.G., Muskens, J. C., & Velthuijsen, J. W. (2000). Defining the Rebound Effect. *Energy Policy*, *28*(6-7), 425–432.

Binswanger, M. (2001). Technological Progress and Sustainable Development: What about the Rebound Effect? *Ecological Economics*, *36*(1), 119–132.

Blumenberg, H. (2013). *Lebenszeit und Weltzeit* (4th edition). Frankfurt am Main: Suhrkamp.

Boswell, W. R., & Olson-Buchanan, J. B. (2016). The Use of Communication Technologies After Hours: The Role of Work Attitudes and Work-Life Conflict. *Journal of Management*, 33(4), 592–610.

Bruch, H., & Menges, J. I. (2010). The Acceleration Trap. *Harvard Business Review*, *88*(4), 80–86.

Brynjolfsson, E., & McAfee, A. (2014). *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. New York: Norton.

Buglass, S. L., Binder, J. F., Betts, L. R., & Underwood, J. D. M. (2017). Motivators of online vulnerability: The impact of social network site use and FOMO. *Computers in Human Behavior*, 66, 248-255.

Carlson, N. R., Miller, H., Heth, D. C., Donahoe, J. W., & Martin, N. G. (2010). *Psychology: The Science of Behavior* (7th edition). Boston: Allyn and Bacon.

Cederström, C., & Spicer, A. (2015). *The Wellness Syndrome*. Cambridge: Polity Press.

Child, J., & McGrath, R. G. (2001). Organizations Unfettered: Organizational Form in an Information-Intensive Economy. *Academy of Management Journal*, *44*(6), 1135–1148.

Chui, M., Manyika, J., Bughin, J., Dobbs, R., Roxburgh, C., Sarrazin, H., Sands, G., & Westergren, M. (2012). *The Social Economy: Unlocking Value and Productivity through Social Technologies*: The McKinsey Global Institute.

Coser, L. A. (1974). *Greedy Institutions: Patterns of Undivided Commitment*. New York: The Free Press.

Dahrendorf, R. (1959). *Sozialstruktur des Betriebes*. Wiesbaden: Gabler.

Derks, D., Brummelhuis, L. L. ten, Zecic, D., & Bakker, A. B. (2012). Switching on and off …: Does Smartphone Use Obstruct the Possibility to Engage in Recovery Activities? *European Journal of Work and Organizational Psychology*, *23*(1), 80–90.

Deutschmann, C. (2001). *Die Verheißung des absoluten Reichtums: Zur religiösen Natur des Kapitalismus* (2nd revised edition). Frankfurt am Main: Campus-Verlag.

Durkheim, É. (1972). Moral Obligation, Duty and Freedom. In A. Giddens (Ed.), *Émile Durkheim: Selected Writings* (pp. 108–122). Cambridge: Cambridge University Press.

Ehrenberg, A. (2010). *The Weariness of the Self: Diagnosing the History of Depression in the Contemporary Age*. Quebec: McGill-Queen's University Press.

Eisenhardt, K. M. (1989). Making Fast Strategic Decisions in High-Velocity Environments. *Academy of Management Journal*, *32*(3), 543–576.

Entschew, E. M., & Suchanek, A. (2017). Digital Communication: A New Challenge For Moral Discernment. *Journal for Business, Economics and Ethics*, *18*(3), 305–327.

Fenner, G. H., & Renn, R. W. (2004). Technology-Assisted Supplemental Work: Construct Definition and a Research Framework. *Human Resource Management*, *43*(2–3), 179–200.

Gehlen, A. (2004). *Urmensch und Spätkultur: Philosophische Ergebnisse und Aussagen* (6th extended edition). Frankfurt am Main: Klostermann.

Gerecke, U. (1998). *Soziale Ordnung in der modernen Gesellschaft: Ökonomik - Systemtheorie – Ethik*. Tübingen: Mohr Siebeck.

German Association for Information Technology, Telecommunications and New Media. (2018). *Anzahl empfangener dienstlicher E-Mails pro Tag in den Jahren 2011 und 2018*. Berlin: BITKOM. Retrieved from: http://de.statista.com/statistik/daten/studie/328293/umfrage/anzahl-der-empfangenen-dienstlichen-e-mails-pro-tag-in-deutschland/

Gronemeyer, M. (2014). *Das Leben als letzte Gelegenheit: Sicherheitsbedürfnisse und Zeitknappheit*. Darmstadt: WBG - Wissenschaftliche.

Gunia, B. C., Wang, L., Huang, L., Wang, J., & Murnighan, J. K. (2012). Contemplation and Conversation: Subtle Influences on Moral Decision Making. *Academy of Management Journal*, *55*(1), 13–33.

Harvey, D. (1990). *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Cambridge MA & Oxford UK: Blackwell.

Hassan, R. (2010). Social Acceleration and the Network Effect: A Defence of Social 'Science Fiction' and Network Determinism. *The British Journal of Sociology*, 61(2), 356–374.

Hassan, R. (2016). Network Time and the New Knowledge Epoch. *Time & Society*, 12(2/3), 225–241.

Hassler, M., & Rau, R. (2016). Ständige Erreichbarkeit: Flexibilisierungsanforderung oder Flexibilisierungsmöglichkeit? *Wirtschaftspsychologie*, *18*(2), 25–34.

Hassler, M., Rau, R., Hupfeld, J., & Paridon, H. (2016). *Auswirkungen von ständiger Erreichbarkeit und Präventionsmöglichkeiten: Teil 2: Eine wissenschaftliche Untersuchung zu potentiellen Folgen für Erholung und Gesundheit und Gestaltungsvorschläge für Unternehmen*. Dresden: Initiative Gesundheit und Arbeit.

Hegel, G. W. F. (1991). *Elements of the Philosophy of Right*. Cambridge: Cambridge University Press.

Hewlett, S., Sherbin, L., & Sumberg, K. (2009). How Gen Y & Boomers Will Reshape Your Agenda. *Harvard Business Review*, *87*(7/8), 71–76.

Heylighen, F. (2008). Accelerating Socio-Technological Evolution: From Ephemeralization and Stigmergy to the Global Brain. In G. Modelski, T. C. Devezas, & W. R. Thompson (Eds.), *Globalization as Evolutionary Process: Modeling Global Change* (pp. 284–309). London: Routledge.

Homann, K. (2014). *Sollen und Können: Grenzen und Bedingungen der Individualmoral* . Wien: Ibera Verlag European University Press.

Iwasaki, K., Takahashi, M., & Nakata, A. (2006). Health Problems due to Long Working Hours in Japan: Working Hours, Workers' Compensation (Karoshi), and Preventive Measures. *Industrial Health*, *44*(4), 537–540.

Jaeggi, R. (2016). *Entfremdung: Zur Aktualität eines sozialphilosophischen Problems.* Frankfurt am Main: Suhrkamp.

Johnson, A. (1978). In Search of the Affluent Society. *Human Nature*, *September*, 50–59.

Kanai, A. (2009). 'Karoshi (Work to Death)' in Japan. *Journal of Business Ethics*, *84*(209), 209–216.

Karger, H. J. (1981). Burnout as Alienation. *Social Service Review*, 55(2), 270–283.

Katz, D., & Kahn, R. L. (1978). *The Social Psychology of Organizations* (2nd edition). New York: Wiley.

Khan, S. A., & Agha, K. (2013). Dynamics of the Work Life Balance at the Firm Level: Issues and Challenges. *Journal of Management Policy and Practice*, *14*(4), 103–114.

Larwood, L., & Whittaker, W. (1977). Managerial Myopia: Self-Serving Biases in Organizational Planning. *Journal of Applied Psychology*, *62*(2), 194–198.

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

Levitt, T. (1960). Marketing Myopia. *Harvard Business Review*, *38*(4), 24–47.

Lewe, P., & Pfeil, S. (2014a). *Das Arbeitgeberwahlverhalten der Generation Y: Eine werteorientierte Analyse unter besonderer Berücksichtigung des Sinns der Arbeit: Executive Summary*. Köln: Enactus e.V., Leipzig: HHL Leipzig Graduate School of Management.

Lewe, P., & Pfeil, S. (2014b). *Das Arbeitgeberwahlverhalten der Generation Y: Eine werteorientierte Analyse unter besonderer Berücksichtigung des Sinns der Arbeit: Studienbericht*. Köln: Enactus e.V., Leipzig: HHL Leipzig Graduate School of Management.

Litschka, M., & Karmasin, M. (2012). Ethical Implications of the Mediatization of Organizations. *Journal of Information, Communication and Ethics in Society*, *10*(4), 222–239.

Luhmann, N. (1977). Differentiation of Society. *Canadian Journal of Sociology*, *2*(1), 29–53.

Luhmann, N. (1989). *Ecological Communication*. Chicago: University of Chicago Press.

Luhmann, N. (1990). Die Zukunft kann nicht beginnen: Temporalstrukturen der modernen Gesellschaft. In P. Sloterdijk (Ed.), *Vor der Jahrtausendwende: Berichte zur Lage der Zukunft, Erster Band* (2nd edition, pp. 119–150). Frankfurt am Main: Suhrkamp.

Luhmann, N. (1995). *Social Systems*. Stanford: Stanford University Press.

Luhmann, N. (2004). *Gesellschaftsstruktur und Semantik: Studien zur Wissenssoziologie der modernen Gesellschaft. Band 1*. Frankfurt am Main: Suhrkamp.

Luhmann, N. (2007). *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung* (5th edition): VS, Verlag für Sozialwissenschaften.

Luhmann, N. (2012). *Gesellschaftsstruktur und Semantik: Studien zur Wissenssoziologie der modernen Gesellschaft. Band 3* (4th edition). Frankfurt am Main: Suhrkamp.

Luhmann, N. (2013). *Introduction to Systems Theory*. Cambridge: Polity Press.

Maier, S., & Seligman, M. E. (1976). Learned Helplessness: Theory and Evidence. *Journal of Experimental Psychology: General*, *105*(1), 3–46.

Mankiw, N. G. (2004). *Principles of Economics* (3rd international student edition). Mason: Thomson South-Western.

Marquard, O. (2015). *Zukunft braucht Herkunft: Philosophische Essays* (2nd extended edition). Stuttgart: Reclam.

Martin, R. (2013). Strategy in a VUCA world. *Strategic Direction*, *29*(10), 32–34.

Marx, K., & Engels, F. (2010). *Marx & Engels: Collected Works* (Volume 5). London: Lawrence & Wishart Electric Book.

May, H. (1985). *Arbeitsteilung als Entfremdungssituation in der Industriegesellschaft von Emile Durkheim bis heute*. Baden-Baden: Nomos Verlagsgesellschaft.

Menz, W. (2017). *Erweiterte arbeitsbezogene Erreichbarkeit Ausprägungen, Belastungen, Handlungsstrategien: Ergebnisse einer qualitativen Beschäftigtenbefragung des Projekts MASTER – Management ständiger Erreichbarkeit*. München: ISF München. Retrieved from http://www.isf-muenchen.de/pdf/Erweiterte_arbeitsbezogene_Erreichbarkeit.pdf

Misztal, B. A. (1996). *Trust in Modern Societies: The Search for the Bases of Social Order*. Cambridge: Polity Press.

Moore, G. E. (1965). Cramming More Components onto Integrated Circuits. *Electronics*, *38*(8), 114–117.

Nassehi, A. (2008). *Die Zeit der Gesellschaft: Auf dem Weg zu einer soziologischen Theorie der Zeit* (2nd edition). Wiesbaden: VS Verlag für Sozialwissenschaften / GWV Fachverlage GmbH Wiesbaden.

Nietzsche, F. (2000). *Die fröhliche Wissenschaft*. Stuttgart: Reclam.

Paul, F., & Suchanek, A. (1994). Entfremdung und Institutionen: Diskussionsbeiträge der wirtschaftswissenschaftlichen Fakultät Ingolstadt der Katholischen Universität Eichstätt. No. 44.

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, Emotional, and Behavioral Correlates of Fear of Missing out. *Computers in Human Behavior*, *29*(4), 1841–1848.

PwC. (2014). *Health Wearables: Early Days*. New York: PricewaterhouseCoopers. Retrieved from https://www.pwc.com/us/en/health-industries/top-health-industry-issues/assets/pwc-hri-wearable-devices.pdf

Rosa, H. (2003). Social Acceleration: Ethical and Political Consequences of a Desynchronized High-Speed Society. *Constellations*, *10*(1), 3–33.

Rosa, H. (2014). *Beschleunigung: Die Veränderung der Zeitstrukturen in der Moderne* (10th edition). Frankfurt am Main: Suhrkamp.

Rosa, H. (2016). *Resonanz: Eine Soziologie der Weltbeziehung* (2nd edition). Berlin: Suhrkamp.

Rosa, H., Dörre, K., & Lessenich, S. (2016). Appropriation, Activation and Acceleration: The Escalatory Logics of Capitalist Modernity and the Crises of Dynamic Stabilization. *Theory, Culture & Society*, 34(1), 53–73.

Salecl, R. (2011). *The Tyranny of Choice*. London: Profile Books.

Saraiva, R., & Iglesias, F. (2015). Cooperation under Pressure: Time Urgency and Time Perspective in Social Dilemmas. *Time & Society*, 25(2), 393–405.

Schulze, G. (1997). Steigerungslogik und Erlebnisgesellschaft. *Politische Bildung*, *30*(2), 77–94.

Schwartz, B. (2007). *The Paradox of Choice: Why More is Less* (reissued.). New York: Harper Perennial.

Schweitzer, A. (1923). *Verfall und Wiederaufbau der Kultur: Kulturphilosophie - Erster Teil* (7th edition). München: Beck.

Seeman, M. (1959). On The Meaning of Alienation. *American Sociological Review*, *24*(6), 783–791.

Seligman, M. E., & Maier, S. (1967). Failure to Escape Traumatic Shock. *Journal of Experimental Psychology*, *74*(1), 1–9.

Seligman, M. E., & Nolen-Hoeksema, S. (1987). Explanatory Style and Depression. In D. Magnusson & A. Öhman (Eds.), *Psychopathology: An Interactional Perspective* (pp. 125–139). Orlando: Academic Press.

Sennett, R. (2012). *Together: The Rituals, Pleasures and Politics of Cooperation*. New Haven: Yale University Press.

Simons, R. (2005). *Levers of Organization Design: How Managers Use Accountability Systems for Greater Performance and Commitment*. Boston: Harvard Business School Press.

Soames Job, R. F. (2002). The Effects of Uncontrollable, Unpredictable Aversive and Appetitive Events: Similar Effects Warrant Similar, but not Identical, Explanations? *Integrative Physiological & Behavioral Science*, *37*(1), 59–81.

Southerton, D. (2003). 'Squeezing Time': Allocating Practices, Coordinating Networks and Scheduling Society. *Time & Society*, 12(1), 5–25.

Stark, C. (2016). Der neoliberale Zeitgeist als Nährboden für die digitale Selbstvermessung: Selbstevaluation – allumfassend, 86.400 Sekunden am Tag, 365 Tage im Jahr. In S. Selke (Ed.), *Lifelogging: Digitale Selbstvermessung und Lebensprotokollierung zwischen disruptiver Technologie und kulturellem Wandel* (pp. 287–308). Wiesbaden: Springer VS.

Suchanek, A. (2007). *Ökonomische Ethik* (2nd edition). Stuttgart: UTB.

Suchanek, A. (2015). *Unternehmensethik: In Vertrauen investieren*. Tübingen: Mohr Siebeck.

Suchanek, A. (2017). Organizational Responsibility as the Avoidance of Relevant Inconsistencies. In R. R. Sharma, M. Csuri, & K. Ogunyemi (Eds.), *Managing for Responsibility: A Sourcebook for an Alternative Paradigm* (pp. 77–89). New York: Business Expert Press.

Tapscott, D. (2014). *The Digital Economy: Rethinking Promise and Peril in the Age of Networked Intelligence* (20th anniversary edition). New York: McGraw-Hill.

The Radicati Group. (2018). *Prognose zur Anzahl der täglich versendeten und empfangenen E-Mails weltweit von 2018 bis 2022 (in Milliarden)*. Palo Alto. Retrieved from http://de.statista.com/statistik/daten/studie/252278/umfrage/prognose-zur-zahl-der-taeglich-versendeter-e-mails-weltweit/

Varian, H. R. (1992). *Microeconomic Analysis* (3rd edition). New York: Norton.

Waldrop, M. M. (2016). The Chips are Down for Moore's Law. *Nature*, *530*(7589), 144.

Weber, M. (1958). *The Protestant Ethic and the Spirit of Capitalism*. New York: Charles Scribner's Sons.

Weber, M. (1978). *Economy and Society: An Outline of Interpretive Sociology*. Berkeley: University of California Press.

Zuboff, S. (1988). *In the Age of the Smart Machine: The Future of Work and Power*. New York: Basic Books.

5. Further Articles in the Field of Digital Communication and Acceleration

- Böldicke, E. M., & Erfurt Sandhu, P. (2017). Ständig erreichbar: Die Entgrenzung von Mensch und Organisation. *Zeitschrift für Unternehmensentwicklung und Change Management*, 36(4), 56–59.
- Suchanek, A., & Entschew, E. M. (2018). Ethical Focal Points as a Complement to Accelerated Social Change. *Humanistic Management Journal*, 3(2), 221–232.
- Permanent Availability – A Path to Hyperinclusion (Conference Paper at the conference 'Business Ethics and Digitization' organized by the Peter Löscher Chair of Business Ethics and Global Governance/ Technological Universtiy of Munich in 2018)

LEIPZIG
GRADUATE SCHOOL
OF MANAGEMENT