

PERSONAL TIME CAPITAL IN THE DIGITAL SOCIETY: AN ALTERNATIVE LOOK AT SOCIAL STRATIFICATION AMONG THREE GENERATIONS OF HIGHLY SKILLED PROFESSIONALS IN ESTONIA

Veronika Kalmus and Signe Opermann

University of Tartu

Abstract. This article aims at analysing how highly educated professionals cope with technological and social acceleration. To explore the emerging patterns of time-based stratification we use an empirical model of personal time-use capability based on the data from a representative survey conducted in 2014 among the Estonian population aged 15–79 (N=1,503) and focus groups conducted in 2017–2018 among three generations of academic professionals (n=24). The mixed-method analysis revealed a multidimensional pattern of socio-demographic, life-course and agency-related factors influencing individual time-use capability and the related set of practices and attitudes. Our findings confirm the assumed importance of age-related factors: the youngest professionals (born 1989–1994) tend to be most flexible, and the middle-aged (born 1969–1974) most efficient, in developing time-use strategies to cope with social acceleration, while the oldest (born 1949–1954) win the least from rapid developments. In general, highly educated professionals collectively serve as agents of social acceleration.

Keywords: personal time capital, time management, social acceleration, digital society, neoliberal academia, social stratification, generations

DOI: <https://doi.org/10.3176/tr.2020.1.01>

1. Introduction

Waves of social transformation and technological innovation have entailed profound changes in various dimensions of temporality, particularly social and personal time. A significant turn in such developments was proposed by theorists of the information society interested in fundamental changes in spatial and temporal

organization of the world induced by the penetration of digital technologies in all spheres of the global network society (e.g. Castells 1996). More recent theoretical elaborations have focused on problems related to acceleration of social time, time-space compression and (de)synchronization, offering models and critical insights concerning social, psychological and political implications of the speeding up of these processes, reaching beyond the capacity of human control and self-regulation (e.g. Mückenberger 2011, Rosa 2013). Specifically, a critical sociological perspective stresses that the increasing pace of technological advancements contributes to a climate of 'social acceleration' (Rosa 2013), from which different social groups may benefit to a different extent (Wajcman 2015). Moreover, individual variation in technological skills, networking capabilities and adaptation to the increasing complexity and pace of life may create new forms of social stratification. For example, Vihalemm and Lauristin (2017) have introduced a time-bound social stratification model based on two dimensions of agency: 1) the capability of converting 'individual time capital' into other types of capital, as conceptualized by Preda (2013); 2) the capability of coping with societal changes and social acceleration. Furthermore, their empirical analysis has demonstrated that 'time-use capability' – the efficiency of converting individual time capital into economic, social, cultural, symbolic and human capital, and vice versa – has implications on individuals' quality of life and well-being, including health (Vihalemm and Lauristin 2017).

We presume, firstly, that the emerging issues of time-based social stratification and 'time justice' (Mückenberger 2011) evoke cultural negotiations of time use and potential power struggles over unequal distribution of time capital, first and foremost, within the institutional contents, which serve as a motor of, while being most affected by, technological and social innovations and the intensification of the speeding-up processes. This paper, therefore, focuses on a particular social segment – highly educated professionals who are often among the first to experience rapid technological changes and the increasing acceleration of work life. We will look more specifically into educational and academic sphere, on which the shifting and often contentious global social and technological changes put ever new demands (Allmer 2018).

Our study, by combining theoretical insights from sociology, media and communication studies and critical university studies, aims to offer a quantitative description of highly educated professionals as more or less successfully coping with technological and social acceleration in terms of time-use capability. Further, we endeavour to provide a qualitative understanding of time and acceleration related subjective experiences and perceptions of professionals employed in the field of research and education.

Secondly, we assume that generational and life-course related features play a significant role in determining how highly educated professionals as social actors deal with new temporal pressures and challenges. Our study takes the point of departure in the generation theory by Mannheim (1952 [1927/1928]) and the concept of 'generational time' introduced by Corsten (1999). According to these conceptual benchmarks, a social generation comes into actuality when the people united by

‘their time’ share certain ‘basic intentions’ and/or ‘principles of construction’, which “serve as a framework of orientation towards their collective opportunity structure of experienced events” (Corsten 1999: 255). Further, according to Mannheim, the young are always the first age cohort to experience new social conditions during their formative years: they have ‘fresh contacts’ with the emerging phenomena, enabling the young generation to negotiate their ways while adjusting to a new social context. To test these theoretical assumptions, we pay special attention to age / generation as a social category both in quantitative and qualitative analysis.

Estonia serves as a highly suitable case for our analytic purposes: technological advancement, particularly digitalization, has been a government priority and one of the central symbols of the rapidly changing society, leading to a widely held perception of the country as one of the leading e-states (Runnel et al. 2009). Paradoxically, however, Estonia still lacks a comprehensive policy perspective on work-related problems brought along by digital technologies. For example, discussions on psychosocial health risks associated with workplace digitalization have only recently been initiated on the policy level.¹ Furthermore, as a post-socialist country in the northeast of Europe, Estonia recently experienced radical political and social changes, and is still undergoing intense and partly conflicting transformational processes (Lauristin and Vihalemm 2009).

2. The speeding-up of social time

Our study focuses on practices and perceptions related to one of the main dimensions of the life-world (Schütz and Luckmann 1974) – *time*; seen in this paper as the individual positioning in the sequence of events, and from the perspective of subjective experiences and social interactions. At the societal level, we understand time as a set of imaginaries that different groups have (Vihalemm et al. forthcoming). For some, time accelerates, for others, not so substantially; some are more eager to initiate changes, others try to slow down any changes of an existing process.

A suitable conceptual connection between different approaches to temporal changes is Rosa’s (2013) interpretation of modernity. Rosa defines the contemporary reality by increasing speed, high rates of innovation, and perpetual movement towards ‘progress’. He and co-authors (2017) state that the normal mode of any modern society is active and changing: “*it needs (material) growth, (technological) augmentation and high rates of (cultural) innovation in order to reproduce its structure and to preserve the socioeconomic and political status quo* in terms of its

¹ On January 1, 2019, significant amendments to the Occupational Health and Safety Act came into force in Estonia (Act 1999), defining and naming psychosocial risk factors at work instead of narrowly psychological factors of work injuries. Until the current times, the wider policy debate (e.g. the Estonian National Health Plan 2009–2020) only briefly covered the topic of mental health and burnout, although according to the European Union statistics on work-related stress the situation in Estonia has been considerably worse compared to the averages of the majority of European countries (Milczarek et al. 2009).

functionality and its basic institutional and distributional order” (Rosa et al. 2017: 54, emphasis in original). Their critique signals that such dynamic stability is rather shaky, involving constant expansion and accumulation to maintain competitiveness. The so-called escalatory logic thus stands on economic, cultural, and social acceleration, feeding these ‘self-propelling processes’ of change. The consequences, according to Rosa (2013: 71–80) are technical acceleration (the advancement and adoption of new technologies) and the general speeding-up of the pace of life. Rosa (2013: 152) points out a paradox: it is expected that technological development favours faster and smoother completion of tasks and frees time for other activities. The result is often the opposite: the norm of acceleration urges people to take the maximum out of every opportunity in life, to do more things in a faster way – often simultaneously. Taking the advantage of the increased place-and-time flexibility may lead to fragmentation and shortage of time (Zherebin et al. 2015). Therefore, from the cultural and social perspective, acceleration manifests itself in the ever-growing complexity of relationships and processes, creating contradictory effects in society.

3. Acceleration in neoliberal academia

The implications of social acceleration are visible in different institutional contexts. Academia, usually seen “as intellectual space and community of scholars, rather than workplace” (Allmer 2018: 49), has, under the current logic of global capitalism, become driven by the idea of market efficiency. Such developments, ascribed to the neoliberal rationality, have evoked a new wave of academic criticism – critical university studies (Williams 2012). In this counter-discourse, various causes and effects are explored: globalization, innovation, corporatization, academic labour, structural inequalities, and professional values. In particular, the primacy of the project-based operational logic has charged academics with consistent individual responsibility to struggle for research funds, being as productive as possible. Such a phenomenon has been conceptualised as ‘projectification’ (Cicmil et al. 2016, Hodgson and Cicmil 2006), referring to the logic of dividing large tasks into smaller units – short-term projects – to control, measure and evaluate the results and worthwhileness of the whole endeavour more effectively. Lindgren and Packendorff (2006: 112) define projectification as a multi-faceted concept under the management discourse legitimating project-based work as “a task-specific and time-limited form of working”. The dominance of marketization under the prevailing conditions of capitalism (Nies and Sauer 2018: 60), closely and causally linked to projectification, create new forms of power governed by measuring and audits, indicators and algorithms (Shore and Wright 2015) as well as the subjective feeling of the accelerating life on a personal as well as professional level. When discussing the changing situation in the field of education and science, Davies and Petersen (2005: 77) even state that “universities and individual academics are made into entrepreneurs”, generating a “risk of undermining the very source of knowledge production that they are intended to promote”.

The changing structures of time in academia (Vostal 2016) have a complex relationship with the knowledge production that takes place in the context of digitalization, making work processes to be largely mediated through the digital media and transforming academic work into ‘digital labour’ (Fuchs and Sevignani 2013). The increasing importance of online research and virtual learning environments raises the question: how has the digital university (via libraries, laboratories and digital platforms) shaped and framed the working conditions of academics, as well as practices and relations within universities (Allmer 2018: 56-7). From the changing time and space perspectives, Allmer (2018: 63) emphasises two main developments: firstly, digital technologies have helped to create ‘academia without walls’ (an analogue of the ‘factory without walls’, Gill 2010) with a fluid work space and a blurred border between working and spare time that have intensified and extended work. Secondly, he criticises the ‘always-on’ culture (being constantly connected and networked to ‘keep up’ and ‘stay on top’) as contributing to acceleration in academia. As a counterbalance to acceleration, Maggie Berg and Barbara Seeber (2017) operationalize the principles of ‘slow’ movement in academia. They focus explicitly on occupational stress among university scholars, caused by the culture of speed. While discussing how to change the relationship with time, Berg and Seeber acknowledge that the idea of ‘slow professor’ comes from a privileged position and sheds light also on the power relations between, for example, senior and junior academic staff.

4. Digitalization, multitasking and media generations

A rapid advancement and diffusion of digital technologies in all societal realms is considered as an evolution and intensification of the speeding-up processes. Theoretical literature (e.g. Agger 2011) has explored the importance of digital media and mobile technologies in shaping people’s perception of personal and social time, and in moulding the patterns and rhythms of their everyday lives and individual practices. Online technology enables and expects from individuals to be available for communication and interactions anytime and anywhere. Moreover, the simultaneous (interlinked and combined) performance of a number of different activities and work processes – multitasking – is favoured in a constructed ‘iLife’, as described by Agger (2011). He, furthermore, envisions a huge generational divide in social perceptions of ‘iTime’: while elders view it as a nightmare of ‘limitless accessibility and manic connectivity’, kids of today – the ‘iPhone generation’ in Agger’s terminology – experience this time as normal.

Agger’s postulate shares, undoubtedly, the reasoning behind the conceptualizations of ‘media generations’: the media technology and its dominant uses which individuals get used to during their childhood and youth can be expected to be things that “one keeps a special relation with for the balance of one’s life” (Bolin and Westlund 2009: 109). Empirical research has, indeed, demonstrated that age and/or generational identity are major explanatory variables of the uses of media technologies (Hepp

et al. 2017, Kalmus et al. 2018), as well as media multitasking (Székely 2015). Specifically, multitasking lifestyle has been ascribed to young people as members of a ‘digital media generation’ (van der Schuur et al. 2015). Furthermore, younger generations tend to have more enthusiastic perceptions of the use of new technology (such as smartphones) and a higher level of habitual ability of practising different activities simultaneously (Kalmus et al. 2018).

5. Time capital as a convertible resource

To operationalise coping with social acceleration on the individual level, we use Preda’s (2013) approach to time capital. His conceptualization is based on economic, cultural, social and symbolic capitals defined earlier by Bourdieu (1986), Portes (1998) and Putnam (2000). In addition to these, Preda includes Becker’s (1964) perspective on human capital that focuses on creativity, personal qualities and social skills.

Preda divides physical time capital that every individual is born with into chronological time capital (personal life expectancy) and psycho-sociological time capital. The latter relates to the quality of time spent on performing various activities, predominantly those that influence mood and health and, thereby, have a potential to increase or decrease chronological time capital (Preda 2013: 31–32).

At the core of his concept, Preda sees the conversion of capitals: individual time capital can be converted into economic capital (e.g. salaries), cultural capital (e.g. education) and social capital (e.g. networking time). The ‘transaction’ also works the other way round: people who are more ‘capitalised’ in terms of money or social relations can buy various services that help to save time and provide comfort, or ask for others’ help to win extra time.

Vihalemm and Lauristin (2017) (see also Vihalemm et al. forthcoming) raise a question about the relationship between individuals’ wealth and social status, and capitalization in terms of more rewarding time as well as basic goods such as health, well-being, love, dignity. By elaborating and operationalising their own model (based on Preda’s concept and reviewed in the next chapters), Vihalemm and Lauristin demonstrate empirically that relations between those categories are much more complex; also, at the structural level, new appearances of stratification manifest and time-related power struggles arise.

6. Methods and data

The paper employs a mixed-method approach, in which a quantitative population survey is complemented with qualitative focus group interviews (see Kalmus and Opermann 2019, Vihalemm et al. forthcoming, for a detailed description of the methodological approach). This research design enables us to combine researchers’ and participants’ perspectives on time-use capability and social acceleration, and thus enhances the validity of the instrument and the integrity and credibility of findings

(cf. Bryman 2006). Quantitative data derive from the 5th round of the representative population survey “Me. The World. The Media”. The survey was carried out by the Institute of Social Studies, University of Tartu, and Saar Poll market research company at the end of 2014. A self-administered questionnaire, combined with an interview, was used. The survey covered the Estonian population aged between 15 and 79 with a total sample size of 1,503 (1,028 respondents completed the questionnaire in Estonian and 475 in Russian). A proportional model of the general population and multi-step probability random sampling was used.

This paper uses the model of empirical measurement of the concept of ‘capability of using individual time capital’, and the resulting typology, developed and validated by the research team of the institutional project “Acceleration of Social and Personal Time in the Information Society: Practices and Effects of Mediated Communication” (see Vihalemm and Lauristin 2017, Vihalemm et al. forthcoming, for methodological and statistical details). The model includes four groups of aggregated index variables:

1. Indices of personal time spent on various activities (5): work and education; housework; media use; reading books; and hobbies;
2. Indices of practices and social relationships enabling to convert time capital into other forms of capital (7): participation in civic organizations; participation in civic actions; functional diversity of social media use; diversity of friends on Facebook; work and business contacts in other countries; mobility in Estonia; consumerism (buying welfare products and services to increase quality time);
3. Indices of people’s relations to changes that require adaptation and increase time pressure and/or entail new opportunities (4): openness to changes; resistance to changes; being bothered by changes; and perception of work-related changes;
4. Indices of time perception and time-use strategies (8): surplus time; perceived lack of time; overwork; difficulties in finding common time for family activities; multitasking; efforts to manage time differently; changing the family’s rhythm of life on holidays and important days; participation in public holiday events.

These index variables (24 in total) were standardized (to 5-point scales based on symmetric distribution) and used as input variables for K-means cluster analysis run on the total sample. A six-cluster solution turned out to be the clearest and the best for interpretation.

This paper focuses on the sub-sample of highly skilled professionals ($n = 253$) who were selected from the total sample based on self-reported education (higher) and occupational status (entrepreneurs, members of the board, executives, farmers, creative workers, freelancers, intellectuals, and specialists). We seek to answer two main research questions:

1. How are Estonian highly educated professionals distributed between time-use capability types?
2. What factors determine type membership? What kind of patterns of time-based stratification emerge?

Second, the paper uses focus groups, conducted in winter 2017 and spring 2018, to examine the qualitative experiences and reflections of highly skilled professionals working in the field of research and education: researchers, associate professors, lecturers, doctoral students, teachers, school principals, and specialists. The focus group participants were selected by convenience and snowball sampling method.

The groups consisted of people born between the following years: 1949–1954, 1969–1974, 1989–1994. While, in a strict meaning, these groups represent age cohorts rather than social generations in Mannheim’s (1952 [1927/1928]) sense, they carry several generational features. The oldest group came of age after the war and the establishment of the Soviet power. The middle group was socialised during the Soviet period, although they reached adulthood within the turbulent flow of the Singing Revolution (1987–1991), the restoration of Estonian independence and radical reforms in all main societal areas. The formative years of the youngest group coincided with the transition period of Estonia, including ongoing democratization, marketization and digitalization. Furthermore, according to our previous research (Kalmus 2016), the distinctive characteristics of media use in these age groups refer to ‘media generations’. The youngest cohort displays several media use features attributed to the ‘digital generation’ (Papert 1996, Siibak 2009), such as using the Internet extensively for social networking, self-expression and communication. The oldest group has remained faithful to the traditional media they consumed during their childhood or youth, and demonstrate a certain reluctance to adopt new media forms, thus possessing several traits characteristic to the ‘radio/print generation’ and the ‘TV generation’ (Bolin and Westlund 2009), seen together as the ‘mass-media generation’ (Hepp 2019). As the middle age cohort displays – compared to the youngest group – a greater inclination towards traditional news media and lesser intensity and versatility of social media use, they form an ‘intermediary or buffer generation’ (cf. Pilcher 1994), also labelled the ‘secondary digital media generation’ (Hepp 2019: 30).

Three focus groups included participants exclusively from each of the three generations, and one was held within a mixed age setting. The total number of participants was 24 (17 females, 7 males). A direct conceptual link between the survey and the focus groups was created by introducing the survey-based time-use capability types as a stimulus for discussion to the participants and by covering and extending the survey topics (e.g. perception of time and social changes, time-use strategies, media use, etc.) in interview questions. The discussions were held in Estonian, although the groups included some individuals with other ethnic background. The focus groups lasted on average 120 minutes. The interviews were recorded and transcribed. MAXQDA software (2016, 2018) was used for the inductive content analysis (Elo et al. 2014).

The next chapters present the survey results and the key findings from the focus groups.

7. Survey findings

7.1. Time-use capability types

First, we give an overview of the six time-use capability types (see also Vihalemm and Lauristin 2017, Vihalemm et al. forthcoming) and their representation among highly skilled professionals.

The first type is characterised by high values of most of the input variables. Particularly, the index of multitasking peaks in this group; thus, we have labelled the group as *successful multitaskers*. In a nutshell, *successful multitaskers*' personal time-use capability is very high: members of this group are highly active in many fields, spending a lot of time on work and education, hobbies and reading books. They are very eager social media users, and they participate actively in civic organizations and actions. While facing difficulties in finding common time for family activities, *successful multitaskers* practice pause-taking to celebrate holidays and important days with family and to participate in public events. They possess higher than average economic, social, cultural and symbolic capital. The only exception is human capital: they sleep less than average and work for long hours, which has obvious health risks. *Successful multitaskers* perceive acceleration of social time as normal, and they have acquired various strategies for coping with increased pace of life.

Members of the second cluster, *discontent multitaskers*, are, similarly to the first group, characterised by intensive time use, constantly perceived lack of time and prevalent multitasking. While frequently participating in civic actions, being highly active on social media and possessing quality time dedicated to hobbies, they spend a lot of time on housework and caretaking. Unlike *successful multitaskers*, they are dissatisfied with the speedy pace of life and refuse to take it for granted. Despite frequent attempts of reorganising their time use, *discontent multitaskers* face the greatest difficulties in finding common time for family activities. Even though they possess average or higher amounts of various capitals, *discontent multitaskers* suffer from social acceleration.

The third type is characterised by above average levels of social media use, consumerism and multitasking, while time spent on work and education and housework remains below average. Multitasking, thus, probably stems from habituated use of new technology rather than an objective need in this group – therefore we have labelled the cluster as *virtual multitaskers*. The levels of civic participation are relatively low in this group, and the index of surplus time is the second highest across the sample. *Virtual multitaskers* do not experience time stress or difficulties in synchronising family activities, and they rather waste than increase their personal time capital. In this group, social acceleration and multitasking are perceived as normal, and technological affordances for flexible use of time and space as enjoyable.

The name of the fourth type, *time-stress-free hobbyists*, derives from the low levels of lack of time and synchronization difficulties, combined with a great amount of time they can spend on hobbies, reading books, media use and civic participation. Members of this cluster have very high levels of time capital they can convert into social and human capital by contributing to community life, educating themselves and changing their habits to follow a healthy lifestyle. They practice pause-taking and resist multitasking and rapid changes; thus, *time-stress-free hobbyists* rather function as reflexive 'brakes' to social acceleration.

Members of the fifth cluster have to spend a great deal of their time on working (often having an extra job) to make the ends meet. They lack time for hobbies, reading, or family activities, and this causes stress and dissatisfaction. Thus, we have named the type as *time-stressed hard-workers*. For most of them, working is not enjoyable; the indexes of overwork and perceived lack of time peak in this cluster. Working, according to Preda's conception (2013), is wasted time capital for members of this type. *Time-stressed hard-workers* face the greatest difficulties in synchronising family activities, they are disturbed by fast changes, fear burnout, and are longing for a more restful pace of life; in being forced to cope with economy-driven changes, they are victims of social acceleration.

The sixth cluster is characterised by low levels of all input variables, except for surplus time and resistance to changes. Most of them are retired and/or very passive in terms of civic participation, hobbies and media use; therefore, we have labelled the type as the *withdrawn*. Many of them concede that they have often nothing to do; thus, they are wasting their time capital, and may feel the stress of being left behind in the process of social acceleration.

By and large, the first four types are characterised by higher time-use capability compared to the two last clusters. Another dimension, however, crosses our typology: while *successful multitaskers*, *virtual multitaskers* and *time-stress-free hobbyists* have developed specific strategies to thrive within social acceleration, *discontent multitaskers*, *time-stressed hard-workers* and the *withdrawn* suffer from it to a smaller or greater degree.

Highly educated professionals fall, with the greatest probability, into the group of *successful multitaskers*: this cluster is predominant (with 40%) among professionals (Table 1), while embracing only 19% of the total population. *Discontent multitaskers* (15%) and *time-stressed hard-workers* (18%) are also slightly overrepresented among educated professionals, compared to their proportion in the total sample. *Time-stress-free hobbyists*, whilst forming the third largest group among skilled professionals (with 17%), are slightly underrepresented, and *virtual multitaskers* (7%) and the *withdrawn* (3%) are marginal types in the professionals' sub-sample. In general, thus, highly skilled professionals are much more likely to face the challenge of constantly perceived lack of time and synchronization difficulties in the conditions of social acceleration.

Table 1. Highly educated professionals by time-use capability clusters

	Successful multitasker		Discontent multitasker		Virtual multitasker		Time-stress-free hobbyist		Time-stressed hard-worker		Withdrawn		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total sample (aged 15–74)	266	19	181	13	204	14	279	19	199	14	303	21	1431	100
All professionals	101	40	37	15	19	7	43	17	47	18	7	3	253	100
Age***														
22–34	29	29	17	46	9	50	1	2	5	11	1	14	62	24
35–54	55	55	15	41	6	33	15	35	19	40	3	43	113	45
55–74	17	17	5	14	3	17	27	63	23	49	3	43	78	31
Language***														
Estonian	76	76	37	97	11	61	38	88	29	63	3	43	194	77
Russian	24	24	1	3	7	39	5	12	17	37	4	57	58	23
Gender**														
Male	29	29	12	32	6	33	19	44	27	57	4	57	97	38
Female	72	71	26	68	12	67	24	56	20	43	3	43	157	62
Children**														
No	57	56	15	40	12	63	32	76	33	70	5	63	154	61
Yes	44	44	22	60	7	37	10	24	14	30	3	37	100	39
Status*														
Owner/executive	32	32	7	19	7	37	10	24	22	48	3	43	81	32
Specialist/intellectual	69	68	30	81	12	63	32	76	24	52	4	57	171	68
Settlement*														
Urban	82	81	21	57	14	74	31	74	38	83	5	71	191	76
Rural	19	19	16	43	5	26	11	26	8	17	2	29	61	24

* p<.1; ** p<.05; *** p<.001 (based on Cramer's V)

7.2. Patterns of time-based stratification among educated professionals

Table 1 demonstrates that age is one of the most significant factors in determining membership in time-use capability clusters: the youngest group is overrepresented among all three clusters of multitaskers, particularly in the type of *virtual multitaskers*; the middle-aged group predominates among *successful multitaskers*; and the oldest group is strongly overrepresented among three groups with lower time-use capability. Thus, younger generations, as a tendency, are more flexible in developing time-use strategies to cope with social acceleration; the middle-aged professionals, however, are most efficient in this task.

Ethnicity, operationalised through one's preferred language of interviewing, is also strongly correlated with time-use capability types; the pattern, however, is more varied, displaying no systematic ethnic inequality. For instance, ethnicity plays no role in determining membership among *successful multitaskers*.

Interestingly, gender and parenting under-age child(ren) form rather similar patterns with minor variations. Females are overrepresented among all three types of multitaskers, especially in the most successful one. Professionals with one or more under-age children most probably fall into two first clusters, being strongly overrepresented among *discontent multitaskers*.

Other background variables are less significantly correlated with time-use capability clusters. The status of owner or executive increases the likelihood of belonging in the type of *virtual multitaskers* and, somewhat surprisingly, in the cluster of *time-stressed hard-workers* or the *withdrawn*. Income and self-estimated social status were not statistically significant background variables.

All in all, the most successful and efficient drivers of social acceleration among Estonian educated professionals are, with a higher probability, middle-aged (or young), female, and parenting under-age children. The general pattern of socio-demographic and life-course factors determining type membership is, nevertheless, varied and multidimensional, displaying no relief structural inequalities. Qualitative data enable us to delve into more specific and dynamic aspects of personal and social time as perceived by professionals employed in academy or educational institutions.

8. Self-identification with time-use capability types: social norms versus lived reality

To link the quantitative and qualitative approaches and to stimulate discussions on personal time capital, we introduced the survey-based types in the focus groups. First, participants read brief descriptions of the sociological portraits (without socio-demographic characteristics). Then they were asked to discuss which type would best describe their lifestyle and opportunities.

The interviewees found it quite difficult to identify themselves with one portrait; rather, they recognised features characteristic to their life in several types. We also witnessed some discrepancies between participants' real practices and the ideal way of life.

In general, members of the youngest generation found more similarities with the types of *successful* and *discontent multitaskers* as well as *virtual multitaskers*, while representatives of two older generations tended to identify themselves with *time-stressed hard-workers* and *time-stress-free hobbyists*. Quite exceptionally, some older participants recognised themselves in the *successful multitasker* – ‘at least in my best days’, as an older male stated (2018). No participants identified themselves with the *withdrawn*.

8.1. Successful multitasker

The type of *successful multitaskers* was considered a benchmark for our era – a role model for every well-adjusted and self-respecting person. At the same time, being consistently ‘successful’ seemed too optimistic or even unrealistic. Some participants found that the degree of their actual civic engagement did not match the expectations the profile creates – ‘that’s one of those activities I’ve deliberately given up, in order to save time’, as a female PhD student put it (2017).

Some participants referred to a perceived conflict between different norms and values: they recognised a socially constructed ideal that contradicted their personal understanding of what they felt to be ‘natural’ and desirable for themselves.

- (1) Well, a successful multitasker seems to be the type that would be the ideal role model in the current society. It’s as if all people should be successful multitaskers. At a certain period of time, I was also influenced by such things and thought that was what I should go after, until I realised that I *was not* that type of person *at all*. That’s the point where you say ‘to hell with everything’ and decide: “I have to do things differently!” [---] I’ve had to make such a shift in order to avoid all of this struggle, because I’m personally not capable of multitasking. [---] The type called ‘time-stress-free hobbyist’ is a natural condition and somewhere near what I’d like to achieve (PhD student, born 1989–1994, male, 2017).²

8.2. Discontent multitasker

Several young and middle-aged participants with under-age children felt themselves under double pressure: in addition to job responsibilities, they had to fulfil their multiple duties at home – primarily unpaid care work for family. For a young mother of a toddler, one of the greatest challenges is balancing the increasing workload and family life and finding time only for herself.

- (2) I think I do represent the type called ‘discontent multitasker’, since all my time, from early morning till late evening, is usually tightly planned, both at work and at home. And thus, I can carve out about one hour within a day for myself to do what I want to do ... at home ... I cannot go out easily (Administrative staff, born 1989–1994, female, 2018).

² Underline – our emphasis; italics – participants’ emphasis (by intonation).

8.3. *Virtual multitasker*

Focus groups added a significant aspect to our model of time-use capability – lived combinations of different types. For example, no pure *virtual multitaskers* existed; they were identified in combination with some other option.

(3) I think that I'm a combo of 'successful multitasker' and... what was it... 'virtual multitasker'. I spend a tremendous amount of time on working and self-development. My free time for hobbies and reading books has decreased significantly. I've made a conscious decision. I'm an active user of social networking media but don't participate often in civic activities and associations. [...] My time schedule is extremely tight, and I multitask a lot on my personal and work projects (PhD student, born 1989–1994, female, 2017).

(4) I seem to be a mix of 'virtual multitasker' and "time-stress-free hobbyist". [...] I do spend a significant amount of time in virtual environments, but not much in social media, networking and chatting. For me, there's no need to tweet every half hour or post every single thing on Instagram. [...] for the 'stress-free' lifestyle, I'd love to invest more time into self-development and different activities (University librarian, born 1989–1994, female, 2018).

While many young participants seemed to be adapted to the inevitability of multitasking, middle-aged professionals voiced predominantly critical opinions on any advantages of that practice. For instance, a psychologist provided insights into recent studies that confirm the inefficiency of multitasking, particularly for complex tasks.

Discussions on multitasking, however, shed light on the complexity of inter- and intra-generational differences. The young generation's experience of growing up with interactive technologies that foster multitasking skills and habits may be outweighed by the older generations' time-proof professional know-how. The PhD student quoted above (1) described his experience of being socialised into working at university:

(5) I got a lot of tips on how to organise teaching and ways of working – what is or isn't worth the time and effort [...] At some point I noticed that they [middle-aged colleagues] are much better and skilful multitaskers or whatsoever, and I just cannot catch up.

8.4. *Time-stressed hard-worker versus time-stress-free hobbyist*

The *time-stressed hard-worker* was also a type that participants could identify with in combination with some other. Several middle-aged and older professionals described their lives as highly stressful, while conceding that intense periods vary in length and alternate with more relaxing phases. Somewhat surprisingly, one participant characterised her lifestyle as influenced by two contrary types:

(6) Well, in my case, there's an interplay of the 'time-stressed hard-worker' and the 'time-stress-free' type. [---] *I haven't given up* my hobbies and favourite things. Truly! I do go to a sports club, although often something intervenes so that I can't go. [---] I love reading, and I do read books – crime fiction especially – and *nothing holds me back* from finding out who the murderer is! [---] So, I'd love to identify myself with the stress-free actor. Yet, it's difficult to get away from the stressful periods that come, you know (Docent, born 1949–1954, female, 2017).

Although middle-aged and older generations had predominantly internalised the norm of intense and hard work, some representatives loudly voiced their disapproval of the practice of accelerated time use, stating that sometimes one *must* make a conscious choice to have breaks from responsibilities:

(7) We're stupidly feeding a sort of default assumption as if we should do more and more with the existing resource we have. In my opinion, this is a very bad starting point! Why should we compress more and more into less and less time?! Instead, sometimes one might simply dawdle, you know (Lecturer, born 1969–1974, male, 2017).

In a similar vein, another participant opposed to the idea of extreme workload, ironically describing her 'deviation' from the prevalent social norm:

(8) It's kind of embarrassing but I think I'm the 'time-stress-free hobbyist', which is totally opposite to the Protestant work ethic and mentality that has been instilled in us... In any case, I'm not the most hard-working person (Chronicle, born 1969–1974, female, 2018).

9. Accelerating academia: changes and challenges

We also explored how academic professionals perceived the tempo and character of the changes that had taken place roughly over the last ten years. For the majority, the general pace of life had quickened. This was caused by intensifying work life and a greater focus on productivity, the bureaucratization of academia, rapid changes in research topics and priorities, and a shift from in-depth to surface approaches to subject matters: “[I]t's horribly unpleasant to approach time from a purely economic logic. [---] However, the current logic of research funding says: give us output, give us any product!” (Lecturer, born 1969–1974, male, 2017).

9.1. Neoliberal uncertainties and projectification

The above-described tendencies can be interpreted within the wider context of neoliberal transformation in education and research. A significant part of the

interviewees felt a great uncertainty about their future. They complained that academic work had become more and more project-based; furthermore, the competitive funding, combined with insufficient investments in research and development in Estonia, steadily decreases the probability of success. Such developments have serious implications for material security and well-being of academic professionals.

(9) The post of researcher is something very insecure. I have to make more and more efforts just for having this work done, for public or private money. I give 150% of myself all the time, in order ‘to stay on a horse’, so to say – but still no guarantees (Senior researcher, born 1969–1974, male, 2017).

Technological innovations and research policy related developments, however, do not affect every aspect of all academic fields. The focus groups demonstrated that disciplines were not ‘accelerating’ at the same pace. Instead, we may speak about *fast* versus *slow disciplines* with their distinct histories and approaches. Representatives of ‘slower’ fields came from history, religion, and culture: “for a theologian, a two thousand years period is nothing...” (male, born 1969–1974, 2017). He and his female colleague claimed that they did not suffer from overwork, rather the other way around.

In contrast, psychology, communication studies and data science dealt with rapidly changing phenomena that brought along fast changes in the nature of work in these fields. For instance, interviewees from social studies and psychology admitted that burnout had become a noteworthy issue at work. Furthermore, they described themselves and their colleagues as bearing individual responsibility for a better performance in these situations instead of relying on their institutions in balancing workload. Older academics in social studies and science and technology, however, expressed their agency through quite a strong counter-discourse to acceleration, saying that they were not willing to go along with the ‘worship’ of fast changes and constant ‘new’ developments.

9.2. *New media technologies and the growth of information*

The use of new media and communication technologies emerged as a dominant issue in group discussions. Participants acknowledged or criticised technology not merely as ‘saving’ or ‘wasting’ time – they discussed controversial aspects and affordances of various platforms (e.g. social networks). In this regard, significant generational differences emerged. PhD students identified themselves as having grown up with new media and digital technologies, and therefore, having adopted the respective practices naturally, though not losing critical stance towards risky issues such as datafication, privacy and transparency. Senior participants’ attitudes reflected rather conservative inertia regarding new solutions (mainly education and administrative software), especially when seemingly promising innovations offered nothing better compared to previous versions.

Participants expressed slightly contradictory views when it came to the usefulness of communication channels such as e-mail, phone and social media. Some, despite

age, found these, especially social networks, to be distracting and intrusive, making them busy; others emphasised professional usefulness of Facebook – for collecting and sharing relevant information or for interacting with students and colleagues:

(10) Participant 1: I've got extra time after stopping using Facebook. I redirected all messages from Facebook to my mailbox...

Participant 2: [---] Firstly, I use Messenger to speak with my friends, of whom many live abroad. [---] And secondly, I've began to follow many research teams and, for example, some niche publications in my field. Thus, I've trained the algorithm well – Facebook lets me know quickly when something [new] is out (PhD student, born 1989–1994, male and female, 2017).

(11) [I] find it much easier to communicate with my students via Facebook Messenger than deal with anachronistic e-mails (Lecturer, born 1969–1974, male, 2017).

One of the relevant questions was: *to what extent and how is technology beneficial for time management and organization of life?* Participants from all generation groups had experiences with various digital tools and networks. Some young people used *Toggl* for measuring the time spent on working. They also mentioned the concept of *agility* that some had applied to their work processes. We could observe that the fast-paced reality of today had made academic professionals value time as a resource more than ever.

As another example of using new media technology for time management, some participants described their ways of filling the moments of 'dead' time (e.g. during workout or commuting) meaningfully. Audiobooks and podcasts served as a popular means to this end. One PhD student had trained herself to get the maximum effect by listening to audiobooks at almost double speed, thus literally giving extra impetus to acceleration:

(11) I'm positive about technology, it has eased our lives. [---] I can approximately spend about 40 minutes or an hour a day listening to an audiobook. [---] I'm able to increase the listening speed to 1.7x. [---] My brother-in-law has increased it to 2.2x, which is pretty unintelligible for someone, however, you get used to that, too (PhD student, born 1989–1994, female, 2017).

A further issue, related to media and communication technology and symptomatic to the 'high-speed' era, was *information overload*. Participants argued that besides the general growth of information production and distribution, scholarly publishing is experiencing explosive growth, and digitalization has quickened this process. Thus, the amount of information one must deal with daily is remarkable:

(12) In a paradoxical way, access to materials has never been easier; yet [processing] all this takes more time, in general, because *a lot of junk* is getting published these days (Lecturer, born 1969–1974, male, 2017).

10. Conclusions

Our mixed-method analysis of highly educated professionals as more or less successfully coping with technological and social acceleration revealed, firstly, a multidimensional and complex pattern of socio-demographic, life-course and agency-related factors influencing individual time-use capability and the related set of practices and attitudes. Interestingly, no relief structural inequalities were notable in determining membership in time-use capability types. Nevertheless, our findings refer to the existence of certain tendencies and field lines that shape time-based social stratification among highly educated professionals.

First and foremost, age-related factors rose to the fore both in quantitative and qualitative analysis. Findings suggested that the youngest group of professionals was, as a tendency, more flexible in developing time-use strategies, particularly multitasking, to cope with social acceleration; representatives of the middle-aged group, however, were often most efficient in this endeavour. The oldest group tended to belong into, or find common features with, the types characterised by lower time-use capability.

These tendencies can be explained, firstly, with a phenomenon that may be called generational *habitus* – a set of dispositions, manners and practices that are characteristic to the people born around the same time, and influenced by the social or cultural epoch in which they were socialised (Edmunds and Turner 2002). Generational features, in particular, came to light in connection with the varying willingness and ability of going along with the demands and affordances of multitasking, new media platforms and technological innovations. Representatives of younger generation predominantly recognised themselves as having grown up with new media technologies and adopting them with ease and being taken for granted. Young professionals, at the same time, demonstrated critical awareness of the distracting and intrusive potential of social media, as well as pragmatic selectivity in using new platforms for academic work. Senior participants, in contrast, mostly embodied conservative inertia towards new technological solutions. These trends are in line with the conceptualizations of ‘media generations’: young specialists, indeed, have welcomed their ‘fresh contacts’ (Mannheim 1952 [1927/1928]) with new media as professional tools more enthusiastically, displaying several features attributed to the ‘digital media generation’ (cf. van der Schuur et al. 2015), while developing a nuanced and critical recognition of the pros and cons of using new platforms and devices as outlined also in recent studies (e.g. Kalmus et al. 2018).

Besides generational features, biological and professional life cycle and the interaction between the two played a considerable role in shaping time-based social stratification among the highly educated. Professionals with under-age children were, according to the survey data, strongly over-represented among *discontent multitaskers*. Similarly, the focus groups revealed insurmountable difficulties faced by several young and middle-aged participants with small children (particularly mothers) in balancing the increasing workload, family duties and the ‘right to one’s own time’ (Mückenberger 2011), highlighting the fact that the unsolved and often

gendered issues of 'time justice' (ibid.; cf. Bianchi et al. 2012, Bryson 2007) are not uncommon to academia.

In addition to generational and life-cycle factors, the focus groups manifested signs of differentiation in terms of time and acceleration related experiences along disciplinary lines, allowing us to speak about 'fast' *versus* 'slow' disciplines (cf. Lindquist 2012) and, thus, horizontal stratification within the institutional field of academy. The limited sample size, however, calls to caution in making far-reaching generalizations in this regard; rather, we suggest the problem of disciplinary inequality in time capital as a potential direction for further research.

Besides internal differentiation, highly educated professionals as a social group share essential commonalities. The predominance of *successful multitaskers* among the survey sub-sample of skilled professionals undoubtedly characterises them as one of the most efficient and thriving drivers of social acceleration in the Estonian society. At the same time, educated professionals were more likely to face the challenge of constant time deficiency and synchronization difficulties. Further, the focus group discussions spotlighted commonly perceived problems: information overload, projectification, insufficient funding, and increasing competitiveness, uncertainty and job insecurity.

Despite socially shared critical awareness of the challenges and shortcomings of the accelerating academia, several focus group participants demonstrated signs of internalization of the hegemonic neoliberal ideology and the respective norms and ideals. In this respect, a considerable part of intellectuals resembled schoolteachers in post-socialist Estonia who, in contrast with their colleagues in Finland and Germany, expressed no strong opposition to neoliberal ideas in schools (Erss et al. 2016). Exceptionally, some middle-aged and older academics represented a counter-discourse to the accelerating pace of work; still, no collective resistance to the increasing institutional time pressures manifested in group discussions. To cope with difficulties and strive for a more fulfilling use of personal time, educated professionals rather used individual strategies, such as giving up (or sticking to) some activities, helping a colleague, and using new media platforms or technologies in a rational and appropriated way.

Our study offered some insights into the ambivalent role of the new media and digitalization in framing the work life of academics (cf. Allmer 2018, Berg and Seeber 2017). On the one hand, as the focus groups manifested, digitalization and social media have contributed to the information overload, distraction and the increasing time deficiency that continuously force individuals to make efforts in choosing and neglecting sources and platforms. On the other hand, new media technologies facilitate or hasten the execution of some tasks; adopting the latter as a habituated practice, however, means adding further impetus to acceleration (cf. Rosa 2013).

As a general conclusion we maintain that highly educated professionals, despite individual and generational variation in time-use capability and subjective perceptions of the speed of life, collectively serve as agents of social acceleration. By routinely working under the conditions of neoliberal and digitalized knowledge production they, more or less deliberately and often uncritically, reproduce the very social reality

(cf. *The SIGJ2* 2012) and its ideological foundation. Developing individual rather than collective strategies to thrive within this overarching institutional structure helps to explain the observed scarcity of social negotiations, not to mention power struggles, over unequal distribution of time capital among academic professionals in Estonia. A practical implication of this conclusion, rather obviously, renders to the long-term sustainability of knowledge-production institutions as social systems.

Acknowledgements

The preparation of this article was supported by the grants from the Estonian Research Council (PUTJD570) and the Estonian Ministry of Education and Research (IUT 20-38).

Addresses:

Veronika Kalmus

Signe Opermann

Institute of Social Studies

University of Tartu

Lossi 36

51003 Tartu, Estonia

Tel.: +372 5662 3583

E-mail: veronika.kalmus@ut.ee

References

- Agger, Ben (2011) “iTime: labor and life in a smartphone era”. *Time & Society* 20, 1, 119–136.
- Allmer, Thomas (2018) “Theorising and analysing academic labour”. *tripleC: Communication, Capitalism & Critique* 16, 1, 49–77.
- Becker, Gary S. (1964) *Human capital: a theoretical and empirical analysis, with special reference to education*. Chicago: University of Chicago Press.
- Berg, Maggie and Barbara K. Seeber (2017) *The slow professor: challenging the culture of speed in the academy*. Toronto: University of Toronto Press.
- Bianchi, Suzanne M., Liana C. Sayer, Melissa A. Milkie, and John P. Robinson (2012) “Housework: who did, does or will do it, and how much does it matter?”. *Social Forces* 91, 1, 55–63.
- Bolin, Göran and Oscar Westlund (2009) “Mobile generations: the role of mobile technology in the shaping of Swedish media generations”. *International Journal of Communication* 3, 108–124.
- Bourdieu, Pierre (1986) “The forms of capital”. In John Richardson, ed. *Handbook of theory and research for the sociology of education*, 241–258. New York: Greenwood.
- Bryman, Alan (2006) “Integrating quantitative and qualitative research: how is it done?”. *Qualitative Research* 6, 1, 97–113.
- Bryson, Valerie (2007) *Gender and the politics of time: feminist theory and contemporary debates*. Bristol, UK: The Policy Press.
- Castells, Manuel (1996) *The rise of the network society*. Oxford and Malden, Mass.: Blackwell Publishers.

- Cicmil, Svetlana, Monica Lindgren, and Johann Packendorff (2016) "The project (management) discourse and its consequences: on vulnerability and unsustainability in project-based work". *The Politics of Projects in Technology-Intensive Work* 31, 1, 58–76.
- Corsten, Michael (1999) "The time of generations". *Time & Society* 8, 2-3, 249–272.
- Davies, Bronwyn and Eva Bendix Petersen (2005) "Neo-liberal discourse in the academy: the forestalling of (collective) resistance". *Learning & Teaching in the Social Sciences* 2, 2, 77–98.
- Edmunds, June and Bryan S. Turner (2002) *Generations, culture and society*. Philadelphia: Open University Press.
- Elo, Satu, Maria Kääriäinen, Outi Kanste, Tarja Pölkki, Kati Utriainen, and Helvi Kyngäs (2014) "Qualitative content analysis: a focus on trustworthiness". *SAGE Open* 4, 1, 1–10.
- Erss, Maria, Veronika Kalmus, and Tero Henrik Autio (2016) "'Walking a fine line': teachers' perception of curricular autonomy in Estonia, Finland and Germany". *Journal of Curriculum Studies* 48, 5, 589–609.
- Fuchs, Christian and Sebastian Sevignani (2013) "What is digital labour? What is digital work? What's their difference? And why do these questions matter for understanding social media?" *tripleC: Communication, Capitalism & Critique* 11, 2, 237–293.
- Gill, Rosalind (2010) "Breaking the silence: the hidden injuries of the neoliberal university". In Roisin Ryan-Flood R and Rosalind Gill, eds. *Secrecy and silence in the research process: feminist reflections*, 228–244. London: Routledge.
- Hepp, Andreas (2019) "A deep generational shift? Some remarks on media generations and deep mediatization". In Peter Jakobsson and Fredrik Stiernstedt, eds. *Fritt från fältet: om medier, generationer och värden. Festskrift till Göran Bolin*, 21–36, Stockholm: Södertörns högskola.
- Hepp, Andreas, Matthias Berg, and Cindy Roitsch (2017) "A processual concept of media generation: the media-generational positioning of elderly people". *Nordicom Review* 38, 1, 109–122.
- Hodgson, Damian and Svetlana Cicmil, eds. (2006) *Making projects critical*. Houndmills, New York: Palgrave Macmillan.
- Kalmus, Veronika (2016) "The emergence of the 'digital generation' in Estonia's transition period". In Raili Nugin, Anu Kannike and Maaris Raudsepp, eds. *Generations in Estonia: contemporary perspectives on turbulent times*, 319–341, Tartu: University of Tartu Press.
- Kalmus, Veronika, Anu Masso, Signe Opermann, and Karin Täht (2018) "Mobile time as a blessing or a curse: perceptions of smartphone use and personal time among generation groups in Estonia". *Trames* 22, 1, 45–62.
- Kalmus, Veronika and Signe Opermann (2019) "Operationalising Mannheim: empirical building blocks of generational identity". In Göran Bolin and Fausto Colombo, eds. *Generations, Time, and Media. Comunicazioni sociali* 2, 232–246.
- Lauristin, Marju and Peeter Vihalemm (2009) "The political agenda during different periods of Estonian transformation: external and internal factors". *Journal of Baltic Studies* 40, 1, 1–28.
- Lindquist, Julie (2012) "Time to grow them: practicing slow research in a fast field". *Economies of Writing* 32, 3-4, 645–666.
- Lindgren, Monica and Johann Packendorff (2006) "Projects and prisons". In Damian Hodgson and Svetlana Cicmil, eds. *Making projects critical*, 111–131. Houndmills, New York: Palgrave.
- Mannheim, Karl (1952 [1927/1928]) "The problem of generations". In Paul Kecskemeti (ed.), *Karl Mannheim. Essays in the sociology of knowledge*, 276–320. London: Routledge & Kegan Paul.
- Milczarek, Malgorzata, Elke Schneider, and Eusebio Rial González (2009) *European Risk Observatory Report. OSH in Figures: stress at work – facts and figures*. European Agency for Safety and

- Health at Work. Luxembourg: European Communities. Available online at <https://osha.europa.eu/en/tools-and-publications/publications/reports/TE-81-08-478-EN-C_OSH_in_figures_stress_at_work>. Accessed on 12.09.2019.
- Mückenberger, Ulrich (2011) "Time abstraction, temporal policy and the right to one's own time". *KronoScope* 11, 1-2, 66–97.
- Nies, Sarah and Dieter Sauer (2018) "Work – more than employment? critique of capitalism and the sociology of work". In Klaus Dörre, Nicole Mayer-Ahuja, Dieter Sauer and Volker Wittke, eds. *Capitalism and labor: towards critical perspectives*, 44–70. Frankfurt, New York: Campus Verlag.
- Tervishoiu ja tööohutuse seadus [Occupational health and safety act] (1999) *Riigi Teataja*. Available online at <<https://www.riigiteataja.ee/akt/112122018074?leiaKehtiv>>. Accessed on 12.09.2019.
- Papert, Seymour (1996) *The connected family: bridging the digital generation gap*. Atlanta: Longstreet Press.
- Pilcher, Jane (1994) "Mannheim's sociology of generations: an undervalued legacy". *British Journal of Sociology* 45, 3, 481–495.
- Portes, Alejandro (1998) "Social capital: its origins and applications in modern sociology". *Annual Review of Sociology* 24, 1–24.
- Preda, Marian (2013) "Time capital and social gravity: two new concepts for sociology of time". In Bianca Maria Pirani and Thomas S. Smith, eds. *Body and time: bodily rhythms and social synchronization in the digital media society*, 21–38. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Putnam, Robert D. (2000) *Bowling alone: the collapse and revival of American community*. New York: Simon & Schuster.
- Rosa, Hartmut (2013) *Social acceleration: a new theory of modernity*. New York: Columbia University Press.
- Rosa, Hartmut, Klaus Dörre, and Stephan Lessenich (2017) "Appropriation, activation and acceleration: the escalatory logics of capitalist modernity and the crises of dynamic stabilization". *Theory, Culture & Society* 34, 1, 53–73.
- Runnel, Pille, Pille Pruulmann-Vengerfeldt, and Kristina Reinsalu (2009) "The Estonian Tiger leap from post-communism to the information society: from policy to practices". *Journal of Baltic Studies* 40, 1, 29–51.
- Schütz, Alfred and Thomas Luckmann (1974) *The structures of the life-world*. London: Heinemann.
- Shore, Cris and Susan Wright (2015) "Governing by numbers: audit culture, rankings and the new world order". *Social Anthropology* 23, 1, 22–28.
- Siibak, Andra (2009) *Self-presentation of the 'digital generation' in Estonia*. PhD Thesis, University of Tartu, Estonia.
- Székely, Levente (2015) "The typology of multitasking activity". *European Journal of Communication* 30, 2, 209–225.
- The SIGJ2 Writing Collective* (2012) "What can we do? The challenge of being new academics in neoliberal universities". *Antipode* 44, 4, 1055–1058.
- van der Schuur, Winneke A., Susanne E. Baumgartner, Sindy R. Sumter, and Patti M. Valkenburg (2015) "The consequences of media multitasking for youth". *Computers in Human Behavior* 53, 204–215.

- Vihalemm, Triin and Marju Lauristin (2017) “Ajakasutussuutlikkus ja kihistumine Eesti ühiskonnas”. [Personal time capital and social stratification in Estonian society.] In Peeter Vihalemm, Marju Lauristin, Veronika Kalmus, and Triin Vihalemm, eds. *Eesti ühiskond kiirenevas ajas: Uuringu ‘Mina. Maailm. Meedia’ 2002–2014 tulemused*, 437–454. [Estonian society in an accelerating time: findings of the survey ‘Me. The World. The Media’ 2002–2014.] Tartu: University of Tartu Press.
- Vihalemm, Triin, Signe Opermann and Veronika Kalmus (forthcoming) “Personal time use capability as a social transformation mechanism”. In Veronika Kalmus, Marju Lauristin, Signe Opermann and Triin Vihalemm, eds. *Researching Estonian transformation: morphogenetic reflections*. Tartu: University of Tartu Press.
- Vostal, Filip (2016) *Accelerating academia: the changing structure of academic time*. New York: Palgrave Macmillan.
- Wajcman, Judy (2015) *Pressed for time: the acceleration of life in digital Capitalism*. Chicago: University of Chicago Press.
- Williams, Jeffrey J. (2012) “Deconstructing Academe”. *The Chronicle of Higher Education* 19 February. Available online at <<https://www.chronicle.com/article/An-Emerging-Field-Deconstructs/130791>>. Accessed on 10.06.2019.
- Zherebin, Vsevolod, Olga Vershinskaia, and Olga Makhrova (2015) “The modern perception of time and acceleration of the pace of life”. *Sociological Research* 54, 3, 189–202.