

Keynotes

Personal Data Practices and Sense Making in a Quantified World

Deborah Lupton (University of Canberra, Australia)

As an increasing range of elements of people's everyday lives become quantified via their interactions and encounters with digital technologies, they must learn how to make sense of and incorporate these details as part of their mundane practices. In this chapter, I draw on examples from several research projects in my Living Digital Data program to examine how people engage in data practices and sense making in response to quantified information about themselves. I discuss what impels people when they decide to collect this information, the types of technologies they adopt to do so, the ways in which they attempt to give meaning to their personal data, how they negotiate quantified details with other non-metricised knowledges derived from their sensory and affective responses to the world, and how these data contribute to concepts and practices of selfhood, embodiment and social relations.

Sex, beauty and surveillance: The gendering of the quantified self

Rosalind Gill (City University London, UK)

This talk takes as its focus contemporary 'beauty apps' and 'sex apps' as two significant genres of self-tracking that have received relatively little attention. I discuss examples of these apps and the novel ways they constitute us as users through a 'pedagogy of defect' (Bordo, 1997) – yet also of possibility - inciting us to look thinner, hotter, younger and to have more sex, better sex and more adventurous sex. I argue that beauty apps and sex apps bring together digital self-monitoring with postfeminist and neoliberal modalities of selfhood to produce an unprecedented regulatory gaze that is focussed disproportionately on women. This 'surveillant imaginary' is 'expanding vertiginously' (Andrejevic, 2015): it is intensifying, extending over more domains and features of life, and progressively moving into 'psychic life'. What are the implications of this? How are self-tracking technologies remaking body image, intimate life and subjectivity more broadly? And to what extent is the quantified self gendered?

Film Screenings

The Quantified Life

Btihaj Ajana (AIAS and King's College London, Denmark and UK)

Directed by Btihaj Ajana in collaboration with Jens Haaning, this portrait documentary film focuses on the self-tracking practices and habits of a dedicated self-quantifier from Denmark, Thomas Blomseth Christiansen. Thomas is no ordinary self-tracker. For the last eight years, he has been meticulously tracking and documenting various aspects of his life and health,

ultimately ridding himself of his severe allergies and improving his overall health, as a result. The film captures some of Thomas' experience while also providing reflections on the wider implications and ethical dimensions of self-tracking and quantification.

My Data My Self

Janet Chan (University of New South Wales, Australia)

Since the last quarter of the 20th Century people have acquired a 'data self' in addition to their phenotypical self and genetic self (Sheila Jasonoff). This 3-minute video explores the ubiquity of sensing and surveillance devices in contemporary life and how such 'big data' makes up data subjects. In a seductive way, this digital ambience has lulled data subjects into being complicit in this performance, as their selves are no longer distinguishable from their 'data doubles' (Matzner).

Panel A: History and genealogy of self-tracking (Auditorium)

Phrenology charts as 19th century self-tracking

Fenneke Sysling (University of Utrecht)

This paper looks at 19th century phrenology in the USA and the UK as an example of how individuals used (pseudo) science as a means of self-tracking and self-making. Phrenologists believed that the human mind could be categorized in different mental faculties, with each particular faculty represented in a different area of the brain and bumps on the head. It was soon considered a pseudo-science by scientists at the universities, but remained popular among the rest of the population. Middle class men and women in the UK and USA visited practical phrenologists to have a 'reading' done of their head, after which they received a chart with their score. This paper is based on my collection of about 150 of these charts, completed for individual clients. Because they consist of tables with numbers (the clients' score on about 40 character traits on a scale of 1 to 6 and their head circumference in inches), I consider this practice as an early form of self-quantification and metric culture. By engaging with their personal numbers, 19th century individuals were able to transform their own self-understanding and were encouraged to work towards self-improvement. I want to suggest that this is an important part of the genealogy of our metric culture and helped making the middle class population quantitatively literate.

A Genealogy of Reason and its Impact on Modern Metric Culture

Jonna Bornemark (Södertörn University)

The history behind the modern metric culture is complex and multifaceted. In this paper I will discuss one aspect in this development: how a series of changes in the concept of reason has prepared the way for a quantifying way of thinking. I will do this by taking a closer look on the philosophies of Nicholas of Cusa and René Descartes. Nicholas of Cusa (15th century) is mostly known for his doctrine of not-knowing, but in this context his two terms for reason are of greater importance. Reason is split into the quantifying capacity (*ratio*), and the ability to experience quality and to reflect (*intellectus*). But Cusa also discusses in detail how these two

are interrelated. If, according to Ernst Cassirer, Nicholas of Cusa was "the first modern human being," René Descartes is the father of modernity. And their discussions on reason are at the center of these epithets. In splitting the world into *res extensa* and *res cogitans*, Descartes can be understood as continuing and developing parts of Cusa's thought patterns, and forgetting about other parts (the ones forgotten in modernity). But in reading Descartes's late work *Passions of the Soul*, we can also read Descartes against Cartesianism—and especially so in late modernity, when *res cogitans* is increasingly reduced into *res extensa*, which also means that *intellectus* becomes marginalized

A transnational spread of an idea: The history of the Quantified-Self movement as a pioneer community

Andreas Hepp (Universität Bremen, Germany)

In the perspective of mediatization research, digitalisation and datafication are a characteristic of the last wave of 'deep mediatization'. However, what has not so far been studied empirically in any detail is that the deepening of mediatization is not a thing in itself, but is instead a process promoted by specific groups that form themselves communities and which are, in respect of these changes, 'pioneers'. A prominent example for such a pioneer community is the Quantified-Self movement. My aim here is to provide a historical account of the engagement of this pioneer community, that is to reconstruct the activities of the Quantified-Self movement from the Bay Area to Europe since 2009. The basis for this is media ethnography in Europe and the US, using qualitative interviews, observations of key events and an analysis of online representations and key texts. To discuss this more in detail, I will argue as follows: First, I will reconstruct the historical developments of the transnational and transcultural Quantified-Self community, the networks of its organisational elite as well as their further activities. On this basis I will consider the extent to which this pioneer community can be treated critically as collective actors of deep mediatization that technologically tries to implement certain 'implicit models of society'.

Taxonomies of the Self: Emergence and social generalization of calculative practices in the field of self-inspection.

Karolin Eva Kappler and Eryk Noji (University of Hagen, Germany)

From its very beginnings modern capitalism has been constitutively linked to the field of calculation. The genesis of modern capitalism depended on the innovation of double-entry bookkeeping. Recently, we observe a third step of quantification that becomes obvious with the development of still very heterogeneous taxonomies and evaluation practices that invade the everyday world, the human body and the subject. We not only analyse such practices of self-assessment and self-optimization that have previously been confined to social circles of self-trackers and self-quantifiers, but also look at the question of social generalization. In the field of self-inspection, we are able to observe taxonomies, evaluation principles, conventions and therefore 'economies of worth' (Boltanski/Thévenot 2007) in the making. The fundamental consideration is that self-quantifiers are above all confronted with two specific problems within contemporary capitalism: economic and cultural uncertainty. Coping with uncertainty in this context means the calculative quest for discovering the very categories by which the plurality of

individual skills and capabilities as well as the plurality of the cultural forms of living can be inscribed into common registers of worth, thereby offering a specific answer to the complexities and ambiguities of life in late modernity.

Panel B: Health and self-tracking data (Room 203)

Self-tracking as health promotion

Erling Jelsøe (Roskilde University, Denmark)

Self-tracking has become widespread in many parts of the world and is understood by many of its proponents as a way to obtain bodily control and through that to improve healthy living. As such self-tracking can be understood as a particular approach to practicing individual health promotion (even though this is not the only incentive for self-tracking). Even though health promotion is often seen as an activity, which resonates with a focus on individual responsibility, such a conception of health promotion contrasts with a broader critical concept of health promotion that emphasize social conditions for improving health and initiatives in social settings (as represented for example by the WHO Ottawa Charter). On the other hand, there is also an element of community orientation among many self-trackers through e.g. sharing and comparison of data via social media. This presentation will provide an analysis of social and community oriented dimensions of self-tracking as a form of health promotion compared to the above mentioned broad critical approach to health promotion in order to identify the contradictions as well as common traits and discuss implications for health promoting initiatives of practices of self-tracking.

The mundane experience of everyday calorie trackers: Beyond the metaphor of Quantified Self

Gabija Didziokaite (Loughborough University, UK)

In this presentation we build on the work of Ruckenstein and Pantzar (2015), who have demonstrated how our understanding of self-tracking has been distorted by the metaphor of the Quantified Self (QS), which provides a very selective picture. We seek to move the conversation from 'innovators,' such as members of the QS communities, to the experiences of the 'early/late majority' (Rogers, 2003). Our participants, who we refer to as 'everyday calorie trackers,' were people who had themselves started using MyFitnessPal calorie counting app and were not part of any tracking community. We identify three main themes – goals, use and effect – in our interviews, which highlight the mundane side of self-tracking, where people pursuing everyday goals engage in uncomplicated self-tracking and achieve temporary changes. These experiences contrast with the account of self-tracking in terms of long-term, experimental analysis of data on the self or 'biohacking,' which dominates the QS metaphor in the academic literature.

Reflections on broken data

Sari Yli-Kauhaluoma (University of Helsinki, Finland)

This study examines situations when people using a self-tracking device face inaccurate, invisible, or meaningless data flows. In these kinds of problematic encounters with personal

data, the data is not lively, i.e. it is not reflected or having any desired meaning for user's everyday life but instead, the data emerges as broken, fragmented or just dead. The study analyzes people's reflections on this type of self-tracking data. It is based on empirical analysis of two rounds of interviews of both experienced and inexperienced self-trackers (in total 29), who participated in a pilot study aiming to promote health and wellness. The paper discusses the potential origins of broken, fragmented, or dead self-tracking data. The results show that users' are actively searching for knowledge and trust in numbers, but the data repeatedly fails them. From users' perspective the data appears so incomplete that it only generates feelings of doubt, confusion, and indifference.

Panel C: Tracking in families and schools (Auditorium)

Negotiating family tracking

Anders Albrechtslund, Ask Risom Bøge and Maja Sonne Damkjær (Aarhus University, Denmark)

This presentation explores the question: What motivates the use of tracking technologies in families, and how does the use transform the relations between parent and child? The purpose is to investigate why tracking technologies are used in families and how these technologies potentially change the relation between parents and children. The use of tracking technologies in families implicate negotiations about the boundaries of trust and intimacy in parent-child relations which can lead to strategies of resistance or modification (Fotel and Thomsen, 2004; Rooney, 2010; Steeves and Jones, 2010). In the presentation, we report from a qualitative study that focuses on intergenerational relations. The study draws on empirical data from workshops with Danish families as well as individual and group interviews. We aim to gain insights about the sharing habits and negotiations in intimate family relations, particularly with regards to location sharing, social media activity and cultural consumption. Furthermore, we aim to use our study to develop postpanoptic surveillance theory (Lyon, 2006) in a more dynamic and relational direction by underscoring the events that lead to active tracking and the co-construction (Oudshoorn & Pinch, 2003) of interpersonal surveillance.

Performing privacy in school

Peter Lauritsen, Ask Risom Bøge and Lars Bo Andersen (Aarhus University, Denmark)

How is privacy perceived, performed and negotiated by school children? School life involves a wide range of technologies, including smartphones, online communication platforms between teachers and parents, and social media. These and other surveillance-enabling services all contribute to the tracking of school children and blur distinctions between public and private information (Monahan and Torres, 2009; Selwyn, 2010; Taylor, 2013; Taylor & Rooney, 2016). Rather than denoting specific spaces, types of information or decisions, privacy is something that must be continuously performed in this environment. This presentation therefore analyzes how school children work to create and negotiate boundaries between what they deem public and private. Drawing on actor-network-theory (Latour, 2005) and findings from ethnographic studies, we demonstrate how children actively work to manipulate socio-technical relations to obfuscate information, but also how their privacy is undermined by other actors who intervene.

Defining privacy is not the purview of children themselves. Rather, privacy is performed by the network.

“It was the Bible of High School” Real-Time Grade Books and the Quantified Student

William G. Staples (University of Kansas, US)

In my book, *Everyday Surveillance* (2014), I focus on the relatively mundane techniques of keeping a close watch of people—what I have dubbed the “Tiny Brothers”—that are increasingly present in the workplace, school, home, and community. Nearly all these kinds of “data sponges” collect quantified measurements regarding an individual’s movements, behaviors, and activities. In some cases, these technologies encourage “self- or “participatory monitoring” so that workers, students, and others may use the information collected to improve their own standing. One example of this phenomenon are internet-based student information systems (SIS) that offer students, parents, teachers, and administrator’s immediate access to detailed student profiles. One feature called “Student View” permits learners to view their teacher’s grade book in real- time. I will report on in-depth interviews with a sample of these school stake-holders focused on how some students engage in intensified “self-tracking” of performance metrics. Interviewees report that the system encourages high performing students to obsessively monitor their grades through smart phones and other devices, frequently comparing their performance metrics with other students, and frequently generating anxiety for themselves and their parents. Consequently, participant narratives suggest these systems intensify both organizational and “participatory monitoring” of student performance and foster micro-level assessments of their everyday lives.

Panel D: Self-tracking, surveillance and privacy (Room 203)

Managing privacy boundaries in Lifelogging and Self-Quantifying

Tally Hatzakis (Open University, UK)

Lifelogging enjoys unprecedented levels of engagement. While for many its benefits are deemed important, its practices challenge how individuals perceive and manage their privacy. This paper applies Communication Privacy Management Theory (CPM) to explore how lifeloggers manage personal boundaries. It also explores the drivers, rules and criteria they apply to decide when, how and how much QS information they disseminate to others in different spheres of social life. Finally, the paper reflects on the usefulness of CPM theory in lifelogging privacy research and informs CPM theory particularly with respect to salient catalyst criteria within QS, and perhaps other techno-social, contexts.

A Quantum of Self: A Study on Self-Quantification and Self-Disclosure

Kateryna Maltseva and Christoph Lutz (BI Norwegian Business School, Norway)

More and more people track themselves with gadgets and apps such as Fitbit, Apple Watch, or Endomondo. Such apps promise a more organized, productive, and healthy self. However, some of the data tracked can be very personal and sensitive. Thus, users make

themselves vulnerable and face the risks of privacy invasions. So far, however, few studies have empirically investigated issues of privacy and self-disclosure in self-tracking. Based on the privacy and self-disclosure literature, we conduct a survey of 475 individuals. Controlling for privacy concerns, trust, and demographic characteristics, we find a significant effect of self-quantification on self-disclosure in the survey context, indicating that individuals who habitually use self-trackers are also more likely to disclose personal data in other contexts. Moreover, we explore the psychological antecedents of self-quantification and find that agreeableness and conscientiousness positively influence the behavior, while emotional stability has a negative effect.

Juxtaposing “pushed” and “private” self-tracking

Nanna Gorm (IT University of Copenhagen, Denmark)

Activity tracking technologies are increasingly introduced in workplace settings, either as part of short-term campaigns or connected to insurance programs. This type of self-tracking can be referred to as “pushed” self-tracking. This is different from “private” self-tracking, where the initial motivation to track is self-initiated (Lupton, 2016). But how exactly do these modes of self-tracking play out, in practice and when seen in relation to each other?

In this paper I analyze two sets of empirical data. The first is an interview-based study of US employees and workplace wellness program managers, from workplaces that offer incentivized tracking. This study was followed up by a survey with more than 500 responses. The second empirical study is a participant driven photo-elicitation study of 22 Danish self-motivated trackers. Participants took photos of their self-tracking practices over the course of 5 months. By juxtaposing these two empirical studies I suggest that we gain valuable insights into both types of practices. I show how time and timing plays a pivotal role in “private” self-tracking practices, which may easily be overlooked in workplace wellness programs. In conclusion, I discuss which consequences the findings of this juxtaposition holds for the future of activity tracking devices in incentivized tracking.

Panel E: Quantified Self and gamification (Hall)

The gamified self: The inevitable psychological marriage of game thinking and self-tracking

Andreas Lieberoth (Aarhus University, Denmark)

Innovations in self tracking technologies gave rise to game-supported applications for scaffolding of e.g. mindfulness, exercise or eating behaviors. Because “gamification” usually adds to existing applications by turning otherwise meaningless data into salient feedback, and setting up intrinsically attractive goalposts, establishing dataflow between real-world activities and the “game rules” is a general challenge, which is continually mitigated by new uses of smartphone sensors and smart appliances. We discuss psychological effect studies, and predictors of attraction to gamification as seen in a recent survey to map market potentials for gamified digital self-help apps in Denmark.

Serious Games for the Young; Beyond quantified and non-quantified approaches

Sirkka Komulainen (Kymenlaakso University of Applied Sciences, Finland)

“Gamification” is an increasingly significant industry to increase individuals’ health (Maturro, 2015). Serious games are designed to entertain players as they educate, train, or change behaviour, often based on cognitive behavioural theoretical assumptions, or the Health Belief Model (Komulainen, 2016). Indeed, digital gaming has an important role in today’s culture and society. In spite of this, game education is still argued to be in its infancy as health related, commercial and academic discourses talk past one another with little constructive dialogue. Typically, games are seen as only good or only bad (Harviainen et al, 2015). The argument in this paper, however, is that social science debates could take a critical step away from dichotomous discourses to gamification. The aim could be an interdisciplinary, constructive dialogue in health and social care services and debates concerning the young. One of the issues is that gamified and other digital applications certainly need not be metric. In Youth work numerous possibilities for game development and playing can be and have been imagined. However, it is also suggested that any new approaches should be supported by coherent social scientific theory. Game culture shapes itself, but also social science approaches could participate in building it (Harviainen et al, 2015).

Games, media archaeology and the quantified health

Brandon Rogers (UNC Chapel Hill, US)

Health and life have long been entangled with concepts of gameplay. Whenever a turn or an attempt is made within a game, the codification results in the quantification of play time, play-life, and ultimately play(er)-death. “I died” and “I need health” are exemplary phrases in the biopolitics of digital and analog games, yet most academic engagements with health and games investigate how games impact behavioral responses or skill acquisition rates. While games rarely enter biomedical discourse outside of these gamified solutionist paradigms, I posit that gaming assemblages participate in a sociotechnical process of (re)defining healthy bodies. This paper therefore provides a media archaeological glimpse into the quantification of health through gamification. Drawing on methodologies created and inspired by scholars such as Thomas Elsaesser, Jussi Parikka, and, in particular, Laine Nooney, I argue that the quantification of health in wargames from Kriegsspiel to Chaimail (re)produced imaginaries of normativity and (bio)citizenship. Furthermore, this genealogy of gamified quantified health recognizes material and ideological transitions of health measurements from drawings to toy soldiers to numbers as distinct ontological moments in the becoming of modern self-tracking.

Panel F: Quantified Self, race and embodiment (Auditorium)

The Wearable Whiteness of Being

Sanjay Sharma (Brunel University London, UK)

This presentation interrogates the quantified self/self-tracking movement as an expression of contemporary, technologically augmented whiteness. In an age of anxiety and risk, globalization, multiculturalism and white fragility, imploding borders and mass migrations, identity

maintenance has become increasingly precarious for white western subjects. Arguably, the quantified self movement desire for self- knowledge, control and mastery is symptomatic of a whiteness in crisis being compelled in remaking the self. The promise of self-determination via technological enhancement is not merely a response to neoliberal demands of becoming a data-driven agent. These practices need to be also grasped through racialized regimes of power-knowledge that utilize self-quantification as means of asserting control in a world in which whiteness is increasingly visible and exposed. By considering whiteness as an assemblage, this presentation opens up an understanding of how self quantification is entangled with race, technology and power.

Self-tracking, embodiment and resistance

Kathryn Lawson (University of Wales Trinity Saint David, UK)

For the first time in human history we are experiencing the convergence of biology with technology at an immense socio-cultural scale, with affordable digital media devices and self-tracking technologies being ubiquitously disseminated, employed en masse by a populous both desirous of bodily data, and confused by conflicting discourses of binary idealised models of healthy subjectivity. While these 'smart technologies' proclaim to endow us with empirical knowledge and control over our own bodies (amassing quantifiable physiological and biological data that asserts to render us knowable to ourselves, through biometric insight into ontological dilemmas of body and identity), this research contests that the constant calibration, analysis and optimisation of the body-through-data, at a subjective level, binds us to a wider ambiguous system of control-through-self-surveillance at play in digitized society; one where our individual subjective worth is measured in terms of narrowing standardized models of *body* and *health capital*. This research will discuss methodologies of resistance, towards utilizing the body as medium for disrupting binary standardization, resisting ambiguous objects of control ('activity-tracking' devices such as fitness trackers and smart watches that serve to contain, in particular the female body, within a growing culture of self-surveillance), by re-writing our own narratives of individual embodiment and experiential identity, through creative strategies of performative praxis that engage the body in process.

The Smart Body: exploring subjective understandings of wearable biotech

Gavin J.D. Smith (Australian National University, Australia)

The widespread availability of attachable sensing devices has given rise to growing numbers of people voluntarily self-tracking their daily experiences through the medium of digital data. As people interact with sensor-enabled technologies that are increasingly mobile, networked and affixed to the body flows of personal data relating to embodied processes and behaviours are created, captured and circulated. The devices themselves are becoming so intelligent that they are progressively able to track interiorised bodily processes such as blood glucose levels and administer the delivery of insulin. In this paper, which draws on insights from interviews with a diverse cohort of wearable tech users, I explore some of the subjective meanings individuals ascribe to the body-worn devices they use in managing chronic health conditions,

which includes analysis of the tactility, aesthetics and political economy of technologies as well as how the exteriorised data they produce comes to mediate experiences of embodiment. I suggest that the accessibility of wearable biotech has established interesting new relationships between data-subjects and their objectified 'host' bodies, dynamics that have a significant effect on how individuals inhabit and present their bodies. I accentuate the way in which bodily intuition and work is being outsourced to, if not displaced by, biotechs and the medium of 'unbodied' data. These tools are increasingly used as a means of orientating and automating decisions as they relate to the management of the body. But they are also situated within complex social relations which shape how they are experienced, understood and conceptualised.

Panel G: Quantified Self, enhancement and optimization (Room 203)

Accelerated sensing Sociological notes on modernity and self-optimisation

Martin Berg (Malmö University, Sweden)

The number of self-tracking devices and apps is growing continuously and there is now a plethora of gadgets available for measuring, interpreting and optimising everything from bodily activities to embodied experiences and emotions. Despite the increased attention paid to the growing field of self-tracking, little is known about the discursive underpinnings of how these devices are designed, and their imagined functionality. Self-tracking devices are often presented as means for users to navigate through the varying temporalities and contingencies of everyday life, and they are often implicitly imagined to solve a series of problems for users. Approaching self-tracking devices through a prism of social theory, this paper advances current understandings within the field of self-tracking studies by drawing attention to how the imagined possibilities of these devices are deeply intertwined with the general characteristics of contemporary late-modern society. In particular, this paper engages with Hartmut Rosa's (2013) concept "social acceleration" in order to understand how the problems that self-tracking devices claim to solve result from the same social processes that make the idea of self-tracking as such meaningful.

Trajectories of computer aided self-optimisation

Agnieszka Krzeminska (Leuphana University of Lüneburg, Germany)

Either with fitness wearables and apps, posture belts or meditation headbands, nowadays there are many digital tools and mediatized ways for the sake of self-improvement and optimization. But is except for medication reasons self-optimization really the obvious cause to use digital self-tracking tools? And what does it mean to optimize oneself? This paper examines the correlations of early human-computer-symbiosis visionaries (Licklider, Engelbart) with now popular practices of digital multipurpose self-tracking. The aim is to identify trajectories of computer aided self optimization, to look at how human agency is co-produced with and by technological materiality (G. Bollmer 2015) and eventually question the goal at issue. About 10 problem-focused ethnographic interviews have been conducted so far — with self-trackers and people who don't use explicitly digital technology for their daily goals and aims but whose actions are also grounded in the desire to self-improve, like professional musicians, physiotherapists or performance athletes. How do they try to gain more control over their lives,

how do they respond to the tracked data and calculate an improvement and how do they imagine themselves in 10 years? I would like to present and discuss my previous findings.

Numbers-Based Narratives. Does self-tracking drive a 'scientific' human enhancement?

Antonio Maturo, Veronica Moretti & Flavia Atzori (Bologna University, Italy)

Self-tracking technologies enable us to collect huge amount of data about our behaviours, feelings and physical activities. Yet, the ways in which we interact with our data are very heterogeneous. This study aims to analyse how some quantified selfers relate to their self-tracking activities, with a special focus on metrics of health and well-being (biometric data and emotional data). The methodology used is the content analysis of 30 videos posted on the Quantified Self website by people who are actively participating in self-tracking activities/data collection (members of the QS community). There are three questions driving this study: Does self-tracking activity foster the adoption of a biomedical cognitive perspective? (In other words, does self-tracking encourage the self-tracker to adopt a medicalized view of him or herself?) Does self-tracking generate a productive conception of the self? Can we consider self-tracking as a practical expression of the transhumanist philosophy of human enhancement?

Panel H: Quantified Self and capitalist value (Auditorium)

Psychic programming and digital self-tracking in the workplace

Chris Till (Leeds Beckett University, UK)

Employers increasingly use digital self-tracking (ST) in corporate wellness (CW) programmes which involve voluntarily tracking of activity through and engagement in self-analysis and team-based competitions. Analysis of interviews and focus groups with managers and employees and related literature demonstrates the principle target of intervention is consciousness not bodies and the aim is an improvement in affect not health. "Employee engagement" discourse claims business success is dependent on workers willingly focusing attention on productive tasks. Management now seek to infuse work with meaning and align the goals of workers with those of the organisation by manipulating desire and channelling attention. ST provides a route into the subjectivity of the worker as they function as "psychotechnologies" (Stiegler, 2010) which manage engagement and attention. Creativity, affect and desire are central to the generation of value today (Lazzarato, 2014) and particular types of consciousness are needed which fit neatly with the productive machinery of digital capitalism. ST CW initiatives are built on principles borrowed from neuroscience and positive psychology to use devices and platforms to maximize levels of productivity, positivity and happiness. Digital devices are thus presented as a tactic for the management of the decline in libidinal energy in digital capitalism (Berardi, 2009).

'A Step is a Step': The Multiple Economies of Bitwalking

Karen McEwen (University of Toronto, Canada)

This paper explores the financial and moral economies of Bitwalking—an emerging platform that "converts human movement to currency." Bitwalking works by channelling users' step-counting data to generate its virtual currency (BW\$), allowing users to earn 1BW\$ per 10,000 steps to a maximum of 3BW\$ per day. The company's co-founders argue that their platform

democratizes the world of virtual currencies by replacing the expensive process of solving complex computational problems (which generates most virtual currencies, such as Bitcoin) with the simple act of walking. They have therefore targeted their platform at the Global South, arguing that “a step is worth the same value for everyone – no matter who you are, or where you are.” This paper does not seek to expose these claims as fraudulent, but to contextualize them in two ways: first, by analyzing Bitwalking as part of the increasingly common practice of deploying self-tracking data in the monetization of daily life; and second, by exploring the generative (but hidden) tension at the heart of Bitwalking’s structure—a tension between the accessibility of Bitwalking’s mechanism of currency generation and the external global economies (both financial and moral) within which BW\$ circulate.

Intimacy without cause: self-tracking and the quantified self in the net-art work of Igor Štromajer

Elena Marchevska (London South Bank University, UK)

Data is money, data is power, data is everything and everything can be data. Yet data is simply a set of information on a world that is messy, irrational, unstable, and emotional. In the V2 catalogue for the show ‘Data in the 21st Century’, the curator states that: ‘The rise of so-called big data and the emergence of technologies that are able to quantify our every move, preference and behaviour, have demonstrated where the friction lies between the unpredictable reality that we live in and the desire to capture it in data.’ (2015). The paper will look into the performative work of Igor Štromajer and his projects ‘Expunction’ (2012) and ‘Multifeminist studies’ (2016) run by/on his Intima Virtual Base production site. Through these projects he is working on simple technological solutions for handling data and emotional strategies. His role of being both performer within the work and simultaneously viewing oneself from an external position (watching yourself on screen to see how you fit in) in order to gauge avenues for proceeding is both disorienting and extremely engaging. As Štromajer summarises: “‘Intimacy without a cause’ today is the most radical resistance to capital. ‘ (2005:149) Both projects raise questions about temporality, duration and availability of net art project that deal with data which change over time and slowly, but persistently lose their utility and, accordingly, their content.

Panel I: Quantified Self, ageing and rehabilitation (Room 203)

Digital Ageing. Digital health practices of the elderly and its effects (Thursday)

Monika Urban (University of Bremen, Germany)

While digital measurements of physical activities are commonly envisioned as practices of young and middle-aged people, digital technologies for the elderly are experiencing a real boom in recent years. Wearables for (regaining) fitness, digital technologies for home-monitoring of long-term chronic conditions and monitoring systems in the setting of ambient assisted living architecture have become popular for people in the third and even fourth life phase. The reasons for this self-responsible effort can both be located in an ageist culture, which idealizes young and abled bodies, and in a progressively deficient and/or unattractive health care infrastructure.

The digital health practices of the elderly are mostly discussed from the perspective of their effectiveness in terms of cost savings and improvements in the health care system. However, my pilot study investigates those practices as sociotechnical interactions with regard to their impact on the self-perception and sentiments of the elderly, their practices of ageing and ideals of '*successful ageing*'. The qualitative analysis shows that on one part the digital technologies enable new practices and embodiments of ageing, on the other we are dealing with a new guidance (and control) of older individuals.

Tracked and Fit: Technologies of Quantified Ageing

Barbara L. Marshall & Stephen Katz (Trent University, Canada)

In the growing body of work on quantification and self-tracking cultures, age still figures mostly as a social division that may be associated with less access, interest or skill in using digital technologies. While the issue of access to technologies is important, we argue that there are also larger questions about how age is produced *through* digital technologies. The focus of this paper is on technologies that track, measure, compare, aggregate and thus quantify, in various ways, age and age-related function. We develop the concept of *quantified aging* to explicate the ways that self-tracking technologies and digital apps create new modes and styles of measuring, calculating, storing and sharing information about the aging self. To illustrate these points, the paper discusses two case studies of current technologies marketed for aging individuals: wearable digital fitness trackers such as the FitBit and associated apps, and digital 'brain-games' and associated notions of cognitive fitness and memory protection. We interrogate the rationalities of these technologies, and explore how they integrate populational surveillance, agential policies (such as 'active aging'), marketable health-products and new risk-averse social strata.

Algorithmic authority revisited: When the physiotherapist goes digital

Nete Schwennesen (Copenhagen University, Denmark)

As human life becomes increasingly entangled with digital technologies, algorithmic systems are becoming a significant part of everyday life. The delegation of tasks to algorithms and their ability to take decisions without (or with little) human intervention has been characterised as a process of algorithmic authority, where algorithms increasingly shape 'who we are and what we see'. This paper engage with the concept of algorithmic authority by way of analysing the affective and material processes through which algorithmic authority is created, maintained and sometimes broken down. The study is based on an ethnographic exploration of the implementation of a smart phone application (ICURA) for the promotion of home-training in the context of physical rehabilitation. By drawing on Despret's notion of authorization as a process of becoming through affective relationships, I illustrate how ICURA (and its embedded algorithms) are authorized to become an authority through processes of trust, attunement and mutual transformation. I argue that centering on the algorithms as the main actor producing authority may overlook the dynamic and affectual relations involved in the process of producing and maintaining authority and the continuous adjustment work, which decides whether algorithms and devices are transformed into entities that require docile bodies or entities, which allows bodies to be articulated in multiple ways.

Panel J: Quantified Self and self-experimentation (Auditorium)

Digital Self-tracking and the “One Person’s Laboratory”.

Dorthe Brogård Kristensen (University of Southern Denmark), Thomas Blomseth (Technical University of Denmark) and Jakob Eg Larsen (TOTTI Labs, Denmark)

The rapid rise of digital self-tracking technologies has created a new way of being for consumers: she or he is able and increasingly willing to track minute and subtle – yet meaningful – changes in mental, emotional and physiological phenomena, ranging from rates of perspiration to the frequency and duration of specific dreams (Pantzar and Ruckenstein 2015; Lupton 2013, 2016). Digital self-tracking entails that the subjects themselves are engaged in their own personal data collection, which serves as a means for improving their lives (Ruckenstein 2014, Sharon & Zanderberg 2015). In this paper we will focus on the phenomenon of self-tracking, data and the use of the methods and instruments of science in the Quantified Self (QS) movement. In the context of self-tracking practices it has been argued that the kind of self-tracking prevalent in the health sector – so-called ‘telemedicine’ – largely reproduces existing power relations within the biomedical paradigm, with a hierarchical relationship between doctor/patient (Lupton 2016). In contrast QS self-trackers put their own subjective observations and experience front and center, by using their own instrumentation and data set as a “personal” laboratory. They design their own research about themselves with the help of new tracking, data processing and sharing technologies. The ideological position that emerges in this case is not a simple adoring relation to the “real scientist” who will be imitated, (Bonney et al. 2009), rather among the experienced self-trackers their interest is fueled by a growing epistemological discontent with biomedicine and skepticism towards institutional scientific authorities.

Living the metric life

Minna Ruckenstein and Mika Pantzar (University of Helsinki, Finland)

The rendering of life in terms of numbers and visualizations is a driving force behind the cultural logic of a ‘metric life’. With new digital tracking tools, life, in all its messiness, is made observable, objective and seemingly manageable. The paper considers this development in relation to two forms of objectivity (Daston & Galison 2007): ‘mechanical objectivity’ (tied to validity, reliability and accuracy of measurement) and ‘trained judgement’, in which knowledge is evaluated in light of the measurement results presented, professional and personal experience and shared cultural understandings. An explorative study, focused on the dialogue between physiological measurement data and subjective interpretations, suggests that the framework of mechanical objectivity tends to fall short when people start evaluating their day to day life. People are creative in deducing causal relations and inducting coherent explanations from the data. Paradoxically, seemingly universal measurement devices afford increasingly personalised theories. This development stands in marked contrast to mechanical objectivity, a framing in which numbers should provide a common frame of reference functioning against subjective forces of knowledge formation. Instead, self-tracking measurement devices are used to experiment and learn, gaining value in relation to the communicative processes that they foster.

QS veterans and the reflexive turn

Vaike Fors (Halmstad University, Sweden) and Minna Ruckenstein (University of Helsinki, Finland)

The Quantified Self movement, advocating self-optimization and behavior change by means of feedback loops, has promoted the idea of 'self knowledge through numbers' by relying on the use of self-monitoring devices to obtain bodily and mental evidence that is 'uncontaminated by interpretation'. However, when interviewing QS veterans from Northern Europe it appears that self knowledge through numbers does not imply to continuously 'live with numbers' but also to 'live without numbers'. In the QS meetings, presentations are structured around three questions: (1) What did you do? (2) How did you do it? (3) What did you learn? This kind of structure emphasizes the nature of the QS as a learning community, loosely tied up around a shared interest in what learning affordances emerge through the use of body monitoring devices. In this presentation, we describe these affordances, the kind of reflexivity and learning they foster, and how QS veterans' engagements in the community has transformed their thinking about measuring and subsequently what they bring with them from these experiences when moving into new contexts. We demonstrate how the QS has been adopted as a new way to connect and learn, gaining value in relation to the social and communicative processes that it promotes.

Panel K: The Quantified Patient I (Room 203)

Quantified patients: transformed through data?

Gemma Hughes (University of Oxford, UK)

Our programme of research goes beyond the quantified self into the realm of the self as quantified by others. [SCALS: Studies in Co-creating Assisted Living Solutions](#) is a linked series of organisational case studies exploring how we can better support 'assisted living', that is, people using technologies to help them live independently despite physical or cognitive impairments. We study these technologies in their organisational, social, political and policy context, collecting qualitative data at individual (micro), organisational (meso) and policy (macro) levels. Emerging findings show that people's activities, including their use of health services, journeys and bodily measurements, are routinely transformed into digitised data. These data are used to track people temporally (showing patterns of health service use), spatially (monitoring their movements) and across space and time (providing care at a distance). We examine, in one case, how 'risk' underpins the rationale for digitising, quantifying and tracking patients. Drawing on Foucault, and asking questions about how risk is constituted, we find that tracking of people by others performs a surveillance function, potentially changing the nature of care and organisational relationships. We conclude with reflections on the ethical issues of this surveillance, in an environment characterised by reducing resources for face-to-face care.

What are clinicians' experiences of the feasibility of using the smartphone application Recovery Record in interdisciplinary eating disorder treatment?

Pil Lindgreen (Aarhus University, Denmark)

In Denmark, more than 60.000 people have an eating disorder, which can be a lethal illness. Recovering is more likely when patients engage in meal self-monitoring. However, this is difficult to maintain. As a digital alternative to pen-and-paper meal diaries, the app Recovery Record may facilitate patient self-monitoring thus improving treatment outcome. Recovery Record enables in-app linking between the patient and clinician. When linked, the clinician may review patient data in-between treatment sessions and provide feedback. In this study, we wanted to explore clinicians' experiences with using the app in interdisciplinary eating disorder outpatient treatment. Clinician experiences were investigated through individual interviews, focus group interviews and participant observations. 23 clinicians of different professions participated. Data was collected and analyzed concurrently according to the applied approach of Interpretive Description. Thus, initial findings informed the subsequent data collection and vice versa, thereby ensuring the validity and relevance of the study. Data is still being analyzed, but preliminary findings include the themes; setting expectations; when support becomes control; turning setbacks into progress; when patient vulnerability becomes commitment; when data overload turns into guilt. Our findings may affect the design of future treatment programs.

“Life often gets in the way”: Constructing users of the iPhone “Bedtime” app

Antoinette Fage-Butler (Aarhus University, Denmark)

Lack of sufficient sleep is associated with a range of health consequences (Hillman & Lack, 2013), and is considered a significant public health issue (WHO, 2004). In response to the problem of poor sleep hygiene (Irish, Kline, Gunn, Buysse, & Hall, 2015), some doctors are now prescribing sleep apps to their patients (So, 2014). Given the rapid pace of citizens' entanglement with these technologies, there is a need for greater focus on the sociocultural implications of these developments, for example, in relation to issues of identity, subjectivity and power (Lupton, 2014, 2015). In this paper, I employ Foucauldian discourse analysis (Foucault, 1972) to analyse the discursive construction of sleep app-users, using as data the “Bedtime” app (iOS 10) for iPhones, pop-up information about using the app on the iPhone, and the app's promotional video. The main findings are that potential “Bedtime” app-users are constructed as self-determining in some areas yet lacking self-control in others, as needing help, as victims in their life circumstances, as sensitive to stimuli and as quantifiable. I argue that the construction of the m-patient evident in the data has more in common with the biomedical patient than the e-patient (Fage-Butler & Anesa, 2016).

Panel L: Quantified Self, performance and flow (Auditorium)

Self-tracking as flow

Nanna Bonde Thylstrup and Stine Lomborg (University of Copenhagen, Denmark)

This paper conceptualises contemporary self-tracking cultures in terms of ‘flow’. Not only do data flow from self-trackers to systems and back, users flow, too, by sifting through everyday life and incorporating self-tracking in their habitual and meaningful practices. In fact the very experience of self-tracking may be conceptualized as flow. In addition, the notion of flow has become a central technique, utilized by digital media companies to “hook” their users. Flow is everywhere, yet is seldom mobilised as a conceptual framework for understanding

contemporary media culture. We develop our framework of self-tracking as flow to explore today's 'metric culture' by bringing into dialogue two classic frameworks of flow from media and psychology studies; Raymond Williams' writings on television as programmed flow (1987) and Mihaly Csikszentmihalyi's psychological notion of flow as pleasurable, immersive experience (1990). Both suggested flow is not only a matter of technique and pleasurable experience, but also raises questions of power, self-surrender, and even addiction. The intricate relations between pleasure and self-surrender in self-tracking are explored through a set of complimentary empirical cases on the uses and experiences of self-tracking based on the In Flow Mood Diary and Endomondo Fitness Tracker apps.

From jogging to running: the role of the quantification of physical activity in the evolution of performance norms

Marina Maestrutti (Paris I, France), Marco Saraceno (Paris I, France) and Mauro Turrini (Institute of Advanced Studies of Nantes, France)

The phenomenon of jogging appeared in the 1960s in the United States as the first « sport for all », i.e. a discipline that any amateur could do as a way to be in shape and healthy, out of any competitive goal. So why, paradoxically, does an activity which is defined by its freedom from the standards of athletic competition (exit the stadium, underestimation of ranking ...) is one of the most important vector and symbol of the Quantified Self? Our paper seeks to examine the relationship between the technical evolution of physical activity monitoring devices and the practice of jogging/running. Monitoring different parameters of physical performance and transforming them into shareable data with the primary goal to motivate the user have many implications on the practice and meaning of jogging/running. First, running either with or without makes a difference for many reasons, in that it is described as two kinds of experiences and its benefits and downsides are a frequent topic of debate. Second, we may speak of gamification: thanks to technology running becomes like a videogame with ranks, maps, graphs and so forth. Third, real-time measures of it tends to reintroduce a sport normativity based on the improvement of performance in this discipline, even for amateurs of any age – to such an extent we speak of a trend from jogging to running. Finally, obtaining "prices" rewarding the constancy and improvement of a practice valued as "healthy" leads to the coincidence of the norm of "good life" with that of the "good training".

Self-tracking and mindfulness

Svetlana Smirnova and Jun Yu (London School of Economics and Political Science, UK)

Our work presents an empirically grounded discussion of how the notion of 'mindfulness', a psychological process understood as an awareness to the unfolding of the moment-by-moment experience (Kabat-Zinn, 2003), is (re)constructed by digital health tracking apps, such as *Headspace*, *Calm*, and *Smiling Mind*. In order to demonstrate how mindfulness is constructed by health tracking apps, we draw on two separate sets of debates. The first is the field of human-computer interaction with a focus on health and wellness, and the second is the literature that explores mindfulness practices from psychological and social perspectives. Methodologically, we combine quantitative content analysis with critical discourse analysis (CDA). We first conduct a content analysis of the 40 most downloaded mindfulness apps available on Apple store and Google Play. Subsequently, we use CDA for analyzing the three

most popular apps. In the literature we reviewed, mindfulness practices are expected to follow evidence-based approaches, meaning that they require a bespoke guidance by clinical experts. At present, such guidance is missing from tracking apps. This heightens the importance of the ways in which the apps present functionalities, objectives, and qualities as pertinent to mindfulness, for they could act as a potential guidance for users.

Panel M: Anonymity, privacy and dataveillance (Room 203)

The Myth of Anonymity

Kyle Curlew (Queen's University, Canada)

Anonymity has never been more difficult to achieve. As users who believe they are anonymous explore the vast expanse of cyberspace, complex forms of discrete data are collected and stored by many corporate and state actors. Anonymous users are constantly being quantified into complex data doubles and surveillant assemblages. The Myth of Anonymity demonstrates how the collision of institutional and vernacular understandings of anonymity and surveillance lead to the creation of opaque consumer profiles with no clear end origin. This has pressing political ramifications for activists who use anonymity to challenge state or corporate bodies. Anonymity is a necessary protection for those who do not align with the cultural or political norms of a society. Using the once anonymous social media platform *Yik Yak* as a case study of the surveilled and quantified anonymous actor, I will explore the logics that guide the emergence of surveillant assemblages in a community founded on principles of anonymity. Further, I will explore what happens when a social media application takes away the ability to be anonymous, revealing that anonymity was a myth all along. I will accomplish this through a document analysis of journalistic and public documents written about *Yik Yak*, as well as a series of interviews concerning the perceptions of anonymity and surveillance while using the application. This project will combine sociological and anthropological theory to construct a folklore of surveillance.

Human quantities: aestheticizing dataveillance in contemporary art practice

Amy Christmas (Qatar University, Qatar)

In a society suffused with surveillance technologies and practices, which persist in their extension across and into all dimensions of human experience, significant contributions to the ontology of the surveillant self have been made by the contemporary art community. Indicating an important conceptual break with the hitherto pessimistic depictions of surveillance in the arts, several prominent multimedia artists have explored the radical potential of dataveillance as a way to bridge the disconnect between quantitative and qualitative representations of self in the information age. This paper will consider the questions raised by three recent art projects: Hasan Elahi's *Tracking Transience* (2002-present); Jill Magid's *Composite* (2005); Heather Dewey-Hagborg's *Stranger Visions* (2012-13). Each artist employs a surveillant aesthetic in order to test the extent to which meaningful subjectivities may be constructed out of decontextualised biometric data. In this way, these artists are directly engaging with the surveillant assemblage as proposed by Haggerty and Ericson, harnessing the discrete flows of data that normally work to depersonalise and thereby negate individual identities, and instead

repurposing these disassembled metrics as a means of examining modern selfhood as it both produces and is produced by surveillance environments.

Quantified Self Report Card

Chelsea Palmer (Human Data Commons Foundation, Canada)

More than ever before, knowledge is power. We can now model and analyze complex network structures of human interaction, using Quantified Self methods in conjunction with machine learning algorithms and data analysis tools. This technological advance must be engaged in ways that enhance the greater social good. It is crucial that we know as much about our own "selves" as the companies and organizations that collect and store our data. In 2017, we'll support this by introducing the Quantified Self Report Card, a yearly evaluation of industry standards surrounding data collection. This Report Card will include comparative analysis of each company's policies and practices, and will provide recommendations for improvement. Using accessible language, we will condense the concepts from legal documents like a company's "Terms and Conditions" into straightforward explanations. The clearly defined rating system will help frame the larger picture, spreading explicit public awareness of best practices in privacy, security, personal data ownership, and value exchange. This awareness empowers citizens to call for more control over how their data is used and who has access to it. Finally, this produces rich, voluntarily contributed datasets for even more innovative in-depth research in the future.

Panel N: The Quantified Patient II (Hall)

Self-monitoring practices of people living with diabetes as forms of embodiment and agency

Giada Danesi (University of Lausanne, Switzerland)

People living with insulin dependent diabetes have to take up diagnostic and therapeutic functions usually reserved to physicians. They have to monitor their glucose and inject insulin consequently. These works of self-monitoring and self-regulation heavily rely on the acquisition of various knowledge and technical skills as well as experience and self-reflexivity. Measuring and calculating carbohydrates, physical activity, insulin and so on characterise the way of living with diabetes. So far, medical and technological devices have strongly supported these activities and enabled "self-knowledge through numbers". As Lupton (2016) stressed, self-tracking involve practices in which people collect information about themselves and then they individually apply them to the conduct of their lives. Diabetics learn to recognise body symptoms of hypo- and hyperglycaemia through self-quantification and act consequently. Self-quantifying strongly reshapes their knowledge of themselves and the relation to their bodies and social life.

This paper aims at shedding light on the ways self-tracking affects various spheres of the life of people living with diabetes and their surroundings. The paper will pay a particular attention to recent medical devices – continuous and flash glucose monitoring – that reconfigure the work of health providers and self-care.

Digital Decision Aids – A participatory design approach

Sarah Maria Rasch (Alexandra Instituttet A/S, Denmark), Loni Ledderer (Aarhus University,

Denmark), Michael Christensen (Alexandra Institutttet A/S, Denmark), and Morten Kyng (Aarhus University and Alexandra Institutttet A/S, Denmark)

Participation is an important part of health promotion and ‘digital decision aids’ are used to support users and professionals in making decisions about healthcare issues. The aim of this presentation is to describe and discuss, how ‘digital decision aids’ is developed together with adolescents with type 1 diabetes, their parents as well as physicians and nurses at an outpatient clinic at Aarhus University Hospital in Denmark. The development of ‘digital decision aids’ uses an action research approach (Participatory Design) as a way of combining healthcare and technology development to facilitate that the adolescents, their parents and the professionals influence its development. PD strives to offer all the involved participants an equal role in a given project by applying participatory methods, which ensures and underpin activity, creativity, making, and interactive enacting with physical mock-ups, prototypes and designed products. The developmental process starts September 2016 and ends September 2017 and the process comprises observation of existing clinical practice at the outpatient clinic, informal talk and 4 workshops, where the participants together with facilitators experienced in healthcare technology develop a “prototype.” We will discuss and critically review the development of the ‘digital decision aids’ and provide new ideas to improving health promotion interventions.

Swiss actors of self-tracking: the struggles of the State

Bastien Passet (University of Lausanne, Switzerland)

Relying on Andrew Abbott’s notion of linked ecologies (Abbott, 2005), my on-going study is focused on how innovations in “self-tracking” influences actions and discourses of the Swiss Federal Office of Public Health (FOPH). As a new social practice, self-tracking is a challenge for FOPH because it impacts the ecosystem in which it interacts. FOHP can’t ignore this innovation, it would otherwise risk being perceived as outdated. It thus tries to stabilize it (Bijker, Hughes, & Pinch, 2012) in order to keep it legitimacy within its own professional ecology. In this process, the FOPF relies on questionable representations about the promises of self-tracking and eHealth (Audétat, 2015; Lupton, 2014), which often reminds the control society described by Deleuze (2003). In January 2013, the FOPH published its goals for 2020 in public health Among the measures concerning “the quality of healthcare” was the objective “3.2. Cyberhealth”, whose broadness opened up a space for self-tracking in medical settings. In 2015 the FOPH assigned eHealth (the confederation’s organ for cyberhealth) to work on mobile health recommendations which include self-tracking (to be published, December 2016). Using ethnographic methods, I followed this project and attended the sessions of the eHealth group in order to understand its activities and the discourse it produces.

Panel O: Self-tracking and mental health (Auditorium)

Dancers to a discordant system: quantifying schizophrenic’s self through rhythmic regularities

Raffaella Scarpa & Beatrice Dema (University of Turin, Italy)

It is well known that one of the main symptoms of schizophrenia is the loss of self-boundaries perception. With regard to this symptom, thought disorders – especially the uncontrolled

acceleration of the flow of thought, often revealed by a linguistic irrepressible force – and temporal-space alteration are strictly linked, being both causes and effects of the phenomenon. The aim of this paper is to provide an initial overview of metric mechanisms that a schizophrenic subject engages against the self's loss, in order to define and quantify her thoughts and, ultimately, herself. In creating these compensatory structures, the schizophrenic subject relies particularly on rhythmic constancies, achieved through body language – i.e. clapping or repeating movements (such as the continuing sway of the head) – or linguistic strategies. In prose writing, for example, she uses strategies such as the repetition of certain key-words and formulas or particular punctuation marks that function as the text's hinges of discourse's organization. In poetry writing, she chooses metric space as a closed container, the measure of the line as a boundary as well as metric and prosodic elements (rhyme, assonance, consonance, etc.) that guide the flow of ideas with their repetitive rhythm. Therefore, if it is true that calculation and quantification techniques are essential for an individual to improve health and well-being in schizophrenic subjects these metric tools are fundamental for the self's individuation – the first step toward new therapeutic perspectives.

Power, knowledge and the big data imaginary in self-tracking and prediction for mental health

Frances Shaw (Black Dog Institute, UK)

This paper considers organisational metric cultures through a discourse analysis on self-tracking, data collection, and prediction technologies for mental health. Mental health researchers are developing ways to collect data including movement, voice data, location, and proximity to others using apps in order to process that data to identify and predict mood disturbance (Burns et al 2011; Torous & Powell 2015). While the evidence base, feasibility and acceptability of this research is presently being researched in a range of international settings, this paper focuses on the way these developing technologies may potentially empower or disempower users, using a framework of anticipatory ethics (Brey 2012; Johnson 2011; Shilton 2015). I consider the mediation of information about mental health, and the agency and self-determination of users, using Foucauldian concepts of power, knowledge, and biopolitics in this context. The research uses documentary material from mental health research (including research papers, grant applications, and other grey literature on mental health organisational websites) to understand the discourses around the uses of personal sensor data within this field, and the way in which users of such apps are positioned within the industry discourse on the development of these technologies.

Me Platforms: Mental Health, Individualisation and the Smartphone (Thursday)

Zeena Feldman (King's College London, UK)

This paper introduces a research project concerned with the relationship between mental health and social media. It explores how repertoires and traditions of mental health self-care function through smartphone apps and social networking sites. How do analogue care practices – for instance, psychoanalysis and cognitive behavioural therapy – map onto the digital devices that often act as our appendages? And what do these digital mappings reveal about our expectations of technology? To begin, this paper reviews the current terrain of mental health apps and social networking platforms. Through this, I suggest a framework for evaluating

products in this crowded 'marketplace' relative to their audience, technological and communicative affordances, business model, and therapeutic philosophy. Platforms discussed include Happier; Track Your Happiness; Optimism; Talkspace; and Lantern. This project is particularly interested in how shifts in consumer hardware usage – from desktops and laptops to tablets and smartphones – are impacting the sort of mental health self-care being practiced through our devices. My analysis suggests that smartphones tap into wider trends in biomedicine and act as technologies of individualisation (Bauman 2001) which frame mental health as an individual endeavor and problem. Social networking sites, by contrast, regard collectivity and group-based solidarity as vital to securing mental wellbeing.

Panel P: Quantified Self and the female body (Room 203)

Tracking the female body – the impact of self-tracking with a smartphone.

Amanda Karlsson (Aarhus University, Denmark)

How are different self-tracking practices embedded in women's everyday lives?

Little research has empirically examined self-tracking practices from a gender perspective and looked at gender specific usage of both non-gendered apps and gender specific apps such as female cycle trackers – and since the Quantified Self Movement originated in a male environment not much focus has been placed on females. To examine different aspects of lived experience in female self-tracking the empirical study draws on the use of a sports-tracker and a period-tracker. Based on interviews with women and by studying their private data streams this presentation examines communicative and bodily patterns in female self-tracking, and in the sharing of more or less sensitive data (Yin 2004). These patterns are used to discuss how self-tracking affects the embodied experience of the women, and the relationship between the datafied body and privacy (Nissenbaum 2010).

Digital Periods – Menstrual Cycle Tracking Apps and Users' Bodies

Johanna Levy and Nuria Romo-Aviles (University of Granada, Spain)

Period tracking applications do not solely represent digital versions of menstrual calendars but support observation, analysis and interpretation of a whole variety of frequently associated physical and mental states such as mood swings, pain, sleeping patterns, sex life, intake of medication and hormonal contraceptives, vaginal discharge, food cravings and exercise. Based on data collected from users, they predict upcoming menstruation dates, fertile windows, premenstrual syndrome symptoms and some provide additional medical information as well as the possibility to share and compare data and experiences with other users.

Employing ethnographic research strategies such as in-depth interviews with users of period trackers in Austria and Spain, we take a closer look at potential shifts concerning users' perceptions, feelings and understandings of their bodies and menstrual cycles. From an intersectional, feminist perspective and drawing on literature from areas such as feminist Science and Technology Studies, Digital Media Studies as well as feminist phenomenology, our aim is to contribute to the understanding of the consequences of user-tracking app interactions as well as to shed light on the interweavings of material and digital bodies.

The Digitalization of Welfare – a Strategy towards improving Citizens' Self-care

Nicole Thualagant and Ditte-Marie From (Roskilde University, Denmark)

Technologies of measurement and self-monitoring of health data have become part of a metric everyday life in Denmark. As part of a Nordic welfare society, Danish citizens are experiencing a digitalization of welfare services. The rationales behind this digitalization are based on neo-liberal minimization of state intervention, and foster a political ambition of more self-care. This paper explores the rationales behind eGovernment strategy of Digital Welfare 2016-2020, and discusses how this strategy encourages self-measurement and self-optimization through discourses of improvement at both state and citizen levels. Thus, the paper introduces how performativity is related to health. These strategies lean on a bio-citizenship, where individuals with poor health capacities become depended, not on a supporting welfare system, but paradoxically on own self-management skills in order to receive health services. Based on a discourse analysis of central documents, this paper scrutinizes the strategy of digital welfare, as well as narratives from pregnant women participating in new initiatives of self-measurements. Exploring the multifaceted implications of living in a metric culture provides critical insights in the current digitalization of Nordic welfare societies, and to a certain extent challenges the understandings of Danish welfare as part of the predominant ideals of the Nordic Welfare Model.

Panel Q: Quantified Self, neoliberalism and academia (Auditorium)

Academic Metrics and the Economy of Attention

Janet Chan and Lyria Bennett Moses (University of New South Wales, Australia)

This paper discusses the politics of performance metrics in the higher education sector and its likely impact on academic practice. Globalisation of the market for higher education in recent decades has led academic institutions to compete for rankings and prestige. This struggle for status in turn leads to the quantification of the performance of academic staff. Universities typically measure research performance not only in terms of quantity of outputs but also the 'attention capital' (Franck 1999; 2002) they receive, e.g. number of citations or awards and prizes. Chosen indicators are often tailored to simplify assessments rather than take into account nuanced differences in quality, a tendency which suits most STEM disciplines but not humanities and social sciences. These metrics and the emphasis on 'attention capital' generally encourage a culture of competition rather than collaboration, while promoting the 'celebrification' of academic life (van Krieken 2012). We argue that this trend has been exacerbated by the proliferation of technologies that facilitate the collection, calculation and dissemination of such metrics.

Control, resistance and the 'Data University': towards a third wave critique

Raksha Pande (Newcastle University, UK)

The term 'neo-liberal University' has become shorthand for a range of contemporary pressures in University life. In one of the *first waves of critiques* of the neo-liberal University, Marilyn Strathern (2000) put the bifurcation point for North American and European Universities around the turn of the new millennium, when neo-liberal metrics and audit culture moved from the worlds of business and accounting into mainstream academic life. However, according to Roger Burrows (2012: 357), universities have in more recent years passed "beyond the audit culture";

towards a different hegemonic project where systems of ‘quantified control’ begin to possess their own specificity beyond mere auditing procedures. In what could be considered a second wave critique, the metrics have become generative and active – constitutive of new forms of subjectivity and freedoms. In this paper, we want to explore the possibilities for a third wave of critique related to the changing nature of academia. More specifically, we argue that we are now witnessing the emergence of the ‘Data University’ where the initial emphasis on the primacy of data collection for auditing and measuring academic work has shifted to *data coding itself as the new exchange value at work* and productive of new subjectivities and freedoms. This third wave critique requires drawing a schematic line that now takes us beyond the intensification of neo-liberalisation, the internalisation of market values and associated affective structures of feeling to understanding our new digital and big data world. Influenced by Deleuze’s (1992) work on new societies of control, we argue that the genesis of the ‘Data University’ lies in our *active* desire for data and its potential to mediate human relations and modulate our *freedoms*.

The Metricized Student: The Rise and Expansion of Economization and Performativity in American Education

Steven C. Ward (Western Connecticut State University, US)

From Value Added Measures (VAMs) to outcomes-based assessments to competency-based education and testing schemes the theoretical assumptions of orthodox economics, the managerial techniques of New Public Management and the governing logic of neoliberalism have converged over the last few decades to reconfigure the educational systems of many countries around the world. One of the outcomes of this convergence has been the production of a “continuously improving student” who, like the products under Total Quality Management, is constantly monitored, metricized and measured in order to improve performance. This paper traces the historical genealogies of these assessment and accountability schemes and how their confluence in the 1980s generated a new ecology that reconfigured the purpose and practice of education in the US and elsewhere. This paper also explores the effects of these changes on students and parents in these reformed education systems who are now expected to become, ironically, both autonomous subjects who are increasingly responsible for self-managing and self-negotiating their educational choices and at the same time the object of continuous monitoring, measuring and “nudging” to make sure these choices are responsible and correct ones as defined by the established metrics.

Metrics, Management and the Audited Self: Quantified Personhood Beyond Neoliberal Governmentality

Susan Wright (Aarhus University, Denmark) and Cris Shore (University of Auckland, New Zealand)

What counts as evidence of good performance, behaviour or character? While quantitative metrics have long been used to measure performance and productivity in schools, factories and workplaces, what is striking today is the extent to which these calculative methods and rationalities are being extended into new areas of life through the global spread of performance indicators (PIs) and performance management systems. What began as part of the neoliberalising projects of the 1980s with a few strategically chosen performance indicators

to give greater state control over the public sector through contract management and mobilizing 'users' has now proliferated to include almost every aspect of professional work. The use of metrics has also expanded from managing professionals and enhancing one's own performance to controlling entire populations. This paper focuses on the rise of these new forms of audit and their effects in three areas: First, the alliance being formed between state-collected data and that collected by commercial companies on their customers through, e.g. loyalty cards and credit checks. Second, the increasing popularity of technologies for measuring and managing one's own activities, epitomized by the Quantified Self movement. And third, China's new social credit system, which allocates individual scores to each citizen and uses rewards of better or privileged service to entice people to volunteer information about themselves, publish their 'ratings' and compete with friends for status points. This is a new development in the use of metrics simultaneously to discipline whole populations and to responsabilise individuals to perform according to new state and commercial norms about the reliable/conforming 'good' citizen.

Panel R: Quantified Self, representation and mediatisation (Room 203)

The Quantified Baby: Discourses of consumption

Donell Holloway (Edith Cowan University, Australia)

The notion of the *quantified baby* stems from the use of wearable smart devices and tracking apps, which monitor and record babies' biometric data either via data entry by caregivers or wearable sensors which detect and automatically enter data. Public discourses around the *quantified baby* tend to conform to the neoliberal ideology that values self-tracking as a means to achieve a more efficient and "authentic" self. Through ludification (self-)tracking apps and wearables constitute the infant body as a consumable, something that parents can and should consume and observe carefully. This work aims to analyse the representations of the *quantified baby* that can be found in public commentaries, mums' blogs and forums, commercials etc. through a critical discourse analysis approach, in order to highlight power relations and conflicting values that inform the social construction of the *quantified baby*. It finds that advertisements and *infomercials* tend to use a 'discourse of risk' to heighten parental anxiety or blame over their babies' health. This neoliberal responsabilisation sits alongside contradictory yet marginal discourses that show concern about the quality of parent-child relationships when mediated by wearables and apps, the implications for the physical safety of babies, and children's privacy rights and data security.

Social Media and Self-Tracking: Representing the 'Health-Self'

Rachael Kent (Kings College London, UK)

Digital health technology and social media platforms enable health self-representation and self-monitoring practices into digitally quantifiable formats (Lupton, 2012). Much of the current literature on digital health technologies celebrates their practices as revolutionising healthcare through increased 'self-knowledge' and sharing of data (Townsend, 2013, Wei, 2013, Parachassi, 2011). Health has become representative of lifestyle choice; an involvement to make the 'right' consumption choices and take ethical decisions for the management of individual health self-care. The functions and affordability of social media and converged digital health technologies

enable such health lifestyles, as well as self-representations of the 'health self'. There is little critical reflection on the process of using these technologies by users and researchers (Swan, 2012). This paper interrogates claims about the technological health revolution promised by digital health technologies by exploring through semi-structured interviews, how digital health technologies and converged social media enable self-tracking practices and data representations of the self, to construct not only an online identity for the user, but also a 'health self'. This paper questions the extent to which surveillance of/by others influences practices of self-presentation, and how this shifts users' behaviors, understandings of the body and what is deemed as 'healthy'.

Anticipatory Methodology: Seeking the Latent Affordances of Self-Tracking

Suneel Jethani (University of Melbourne, Australia)

In this paper, I discuss methodological issues associated with the critical study of metric cultures. I look at how the affordances of self-tracking systems shape the use-contexts in which the collection and sharing of personal data is occurring — particularly in and around, groups such as the Quantified Self. Drawing on research that examines auto-surveillance and the sensor-driven measurement of interpersonal sociality in the workplace, I outline an approach to studying self-tracking that brings together media archaeology, and theories of technical mediation, affordance and subjectivation. I argue that this offers a means of constructing alternative historical trajectories that link techniques of self-tracking to unrecognized antecedents. By situating metrification practices outside frames of reference that suggest novelty and technological determinism, I argue that a pragmatic reassertion of critical distance can be achieved in our analyses of the motivations, benefits, trade-offs, risks and politics of self-tracking. Further, I argue that by studying the materiality of self-tracking through the documentation of processes which see technologies designed, commercialized and appropriated we can anticipate and predict important future techno-political developments.

Panel S: Self-tracking and the Reproductive Body (Auditorium)

The Datafication of Reproduction: Time-lapse Embryo Imaging

Lucy van de Wiel (University of Cambridge, UK)

Recent years have seen an intensification of the datafication of reproduction, as increasingly large and automatically-generated data sets have come to play an instrumental role in the technological reproduction of human life. In this presentation, I zoom in on time-lapse embryo imaging, a new data-intensive method of embryo selection used for deciding which embryos will be implanted in the womb in IVF procedures. This new embryo selection method has been introduced in UK fertility clinics since 2013 and works by continuously filming the embryos in the incubator and comparing the timing of their cell divisions with those of previous embryo populations through predictive analytics. This temporalisation of embryo selection generates new risks and biovalue through the patenting of embryonic ageing, the “packaging up” of IVF procedures and datafication of embryo selection. By situating this technology in the institutional context of consolidating fertility, biotech and pharmaceutical companies, I address how time-lapse embryo imaging brings together self- and automated tracking, data infrastructures and social media in contemporary practices of technologically-assisted

reproduction. In doing so, I argue that this datafied method of embryo selection may not just result in more or less “IVF success,” but also affects the conceptualisation, representation and commercialisation of the beginnings of human life.

Self-tracking pregnancy: The case of participatory involvement of women with complicated pregnancies

Olav Bjørn Petersen (Aarhus University Hospital, Denmark)

At Aarhus University Hospital women with pregnancy complications as PPRM, hypertension or pre-eclampsia, are no longer automatically hospitalized nor seen frequently in the out-patient clinic. Since 2012 they have been offered to monitor themselves and their unborn baby’s wellbeing and development of the (expected) complication following an individual care and monitoring plan from home. Initially the initiative was received with some scepticism from fellow clinicians: They expected that the women would do frequent and unplanned selftests (blood pressure, urinary tests, cardiotocography monitoring) and generally worry about the wellbeing of their baby and themselves, followed by increased use of resources at the Department of Obstetrics and Gynecology. Instead the vast majority of women thrived and experienced an increased self-reflection which led to enlightened consultations with doctors and midwives, as well as the opportunity to maintain a high degree of everyday life for the involved families reducing stress and anxiety among the women. The discussion will critically touch upon the selection criteria for inclusion, how home monitoring affects the lives of the women and the paramount importance of involving clinical staff and women in participatory design activities throughout the project.

Reproductive citizenship: monitoring risk and managing responsibility

Kylie Baldwin (De Montfort University, UK)

Recent shifts towards older-parenthood have contributed to increasing concerns about the risks posed by age-related fertility decline, particularly in women. These concerns have led to the emergence of a growing number of fertility monitoring and extension technologies such as ovarian reserve testing (ORT) and social egg freezing (SEF). Individualised information about fertility is also increasingly accessible to women through self-surveillance and body monitoring such as through the use of fertility ‘apps’ which enable women to record intimate information about cervical mucus, menstrual cycles and basal temperatures (1,2,3). These technologies, along with the development of new ‘pro-fertility clinics’ such as those recently developed in Denmark, reconceptualise women as having ‘personal IDs’ of low-risk, medium-risk or high-risk of unwanted childlessness (4,5). This paper will discuss how fertility monitoring and extension technologies such as ORT and SEF are emerging as new highly-technologized means through which reproductive citizenship (6) can be enacted and experienced and will consider the implications of these new technological developments. This paper will also explore how these new forms of fertility surveillance and extension are contributing to the growing individualisation of risk and shifting the locus of reproductive responsibility from society as a whole to women as individuals.

Panel T: Quantified Self, sociality and Community (Room 203)

Searching for Community: Critical Re-evaluation of the Quantified Self as a Community.

Yuliya Grinberg (Columbia University, US)

A range of qualifiers are regularly invoked when talking about the Quantified Self as an organizing body. The Quantified Self has been variously described as a meeting, as a group, and even as a movement. Though no term has been more salient than the word 'community.' The organizers of the Quantified Self frequently invoke the notion of community and membership to both describe and stage a sense of cohesion within the group. Among those united under the rubric of the Quantified Self, 'community' has helped to rhetorically remove their work and interests from a wider, more mainstream discourse on self-tracking. For media pundits and developers of bio-sensor technologies, Quantified Self as a community offers a confined set of characteristics and practices, a defined space where wider 'consumer' trends can be spied as though in utero. In this paper, I propose to problematize the notion of 'community' as employed by the Quantified Self and in descriptions of the Quantified Self. In particular, this paper reads the notion of 'community' in conversation with anthropological literature that has long critiqued the concept of 'culture' as a similarly segregated and rarified unit of analysis.

Softwarized Experience? Discerning a Community of Interest's Acceptance Criteria

Stephen Fortune (University of Sussex, UK)

Drawing on broader ethnographic fieldwork this paper considers tensions aired during a QS Conference breakout session entitled 'how do we accelerate our technique' to question the extent to which a 'data culture' can today exist outside of processes of softwarization (Manovich, 2013; Berry, 2014). To date the 'experience of measure' distributed among self-trackers varies greatly, without an indexical link to the software availed of. This paper positions this in contrast to the homogeneous tailoring of User Experience (UX) evident among would-be self-tracking platforms: often startups following an established, post 'web 2.0', orthodoxy of what constitutes a software user today. Taking its lead from the aforementioned breakout session this paper considers tools that are part of AGILE software development, particularly the domain-specific languages that scaffold User Stories. User Stories, themselves a component of continuous integration techniques, afford collaboration between developers and non-programming labourers. A close reading of these software frameworks provides a bridge between 'self-tracking' and UX by comparing how 'the act of testing' is mobilised in both. Through acceptance criteria AGILE Practices' measure 'working software' and thus provide us attributes for comparison against 'what works' for a given self-tracker's experience of measure, experience acquired by their data practice.

Metrics, self-branding and the gamification of 'conspicuous consumption'

Alessandro Gandini (King's College London, UK)

This paper explores the way in which users culturally conceive metrics across digital platforms and social media. Building on a set of ad hoc examples from various contexts, mainly consumer culture and marketing, the paper discusses how users develop performative forms of social media activity around metrics, that fulfil the kind of 'network sociality' (Wittel, 2001) that is typical of contexts where interaction is digitally-mediated. The paper argues the purpose of this kind of activity is eminently oriented to self-branding and the construction of a reputation by

users, who shape up their outward-looking self on a given platform by playing with metrics and rankings. This produces a 'gamified' version of the processes of 'conspicuous consumption' evidenced by Thorstein Veblen more than a century ago (1899), that are now visible in new formats and environments. The paper discusses this interpretation and advances the hypothesis that metrics-oriented social media and platform activity induces users to be 'status seekers' (Packard, 1959) in ways that unveil yet-to-be discussed class implications, as metrics enable new kinds of stratification, hierarchies and inequality.

Panel U: Quantified Self and ethics (Auditorium)

The Informational Body: A Sociomedical Theory of Disability and the Ethics of the Brain-Machine Interface

Stella Palikarova (University of Toronto, Canada)

Cybernetic and bionic technologies hold great emancipatory potential for people with disabilities. Yet, scientists and disability scholars are polarized in their views on developing biotechnologies. Different discourses converge upon the brain-machine interface—a link between the central nervous system and an external device—that augments sensory information and mobility for people with disabilities. This study combines philosophical, cultural studies, and social sciences methods to examine perceptions of these technologies held by people with physical, mobility disabilities and those of the researchers who develop them. Participants with acquired disabilities were more open to brain-machine technologies than those with congenital disabilities; scientists focused on patient “quality of life” and the ethics surrounding biotechnologies. I propose a “sociomedical” theory of disability that reconciles opposed medical and social models through an “informational body heuristic” that delineates the disabled body as a functionally-impaired cybernetic system. Ideological reconciliation would facilitate access to biotechnologies, thus improving the quality of life for people with disabilities by allowing for self-tracking and self-regulatory practices. These aims, and my foundational empirical research, help to draw a distinction between biotechnological treatment versus enhancement, and to legitimize access to brain-machine interface technological developments via policy application.

Quantification, Ethics and Literature

Dominic Rainsford (Aarhus University, Denmark)

I begin with the most basic philosophical questions concerning ethics and number: Are two terrible occurrences worse than one? Are two instances of happiness better than one? If so, how? Is suffering, or the Good, always relative, or can it be infinite and unquantifiable? The claim will be made that philosophical uncertainties such as these, however esoteric they may seem, underlie many everyday examples of confusion and inconsistency in the field of quantitative ethics. A selection of examples is presented, drawn from contemporary public and institutional debates – within politics, the media, and military and medical contexts. This is followed by a sketch of the current status of quantitative issues within academic moral philosophy: ranging from artificial ‘trolley problems’ and the continuing legacy of John Taurek’s provocative 1977 paper ‘Should the Numbers Count?’ to specific engagements by contemporary philosophers in the quantitative aspects of fields such as human rights,

development aid and conflict studies. I shall point to the divide between theoretical debates and real-life cases, and then stake and illustrate my primary claim: that ‘the literary’, understood in a sense that includes but exceeds traditional literary genres, is an inevitable expression of this divide and an indispensable means of negotiating it.

Why we need an ethics for eHealth applications

Lars Assen (Aarhus University, Denmark)

The continuously growing popularity of eHealth-applications urges us to consider their ethical implications. Current ethical research is primarily looking at issues surrounding informed consent and whether medically sensitive data is sufficiently protected. Investigating these issues is important, but not sufficient. Rather we should address the constitutive effects of technology and find categories of ethical problems linked to groups of eHealth-applications and contexts of use, where ethics is about considering a suitable interplay of technology and society. The ethical domain should be more broadly investigated for several reasons. First, eHealth-applications fall outside clinical trials and are in turn not examined by ethical commissions. Secondly, management of health moves from professional to patient due to self-tracking-technologies, which affects the medical practice. Thirdly, we need a better understanding of the ethical implications in order to improve eHealth-applications; ethical insights could benefit at the design and implementation stage and prevent possible dilemmas. Hence we need a better understanding of the ethical concerns and how practices, roles and responsibilities change in order to get a better understanding of which direction is desired for implementing and designing specific eHealth-technologies. In order to do so, we need empirical research and include programmers, engineers, medical professionals and patients.

Resonating self-tracking practices? Empirical insights into theoretical reflections on a “sociology of resonance”

Karolin Eva Kappler (University of Hagen, Germany), Eryk Noji (University of Hagen, Germany) and Agnieszka Krzeminska (Leuphana University of Lüneburg, Germany)

Nowadays there are many digital tools and mediatized ways for self-tracking for the sake of gaining self-knowledge through numbers. Interfaces are not simply objects or boundary points, but autonomous zones of activity (Galloway 2012). In his recent book “Resonance”, Hartmut Rosa suggests that artifacts indeed can resonate with people (Rosa 2016: 381pp.), by affecting emotion, intrinsic interests and self efficacy expectation. In contrast, Rosa characterizes self-tracking as an attempt to measure the resource potential of individuals, confounding it with the good life itself (Rosa 2016: 47). That is why we want to challenge Rosa's concept of a good life and enhance assertion on individual and social practices which can generate resonance. In several case studies, we want to study empirically how people ‘resonate’ (or not) with and in self-tracking practices and in which degree Rosa’s hypothesis is verifiable or not. By empirically contrasting the quantifying practices and metric culture of self-tracking with the recently emerging sociological field of “world- relations” and “resonance”, new insights to the embedding of the quantified with the qualified self will be gained.