

# Liquid User Between States and Global Platforms

By  
Rainar Aasrand

B.A. Cultural Theory  
Estonian Institute of Humanities, Tallinn University (2012)

Submitted to the Department of Architecture in partial fulfillment of the requirements for the degree  
of Master of Science in Art, Culture and Technology

June 2017 / © Rainar Aasrand. All rights reserved. / The author hereby grants MIT permission to  
reproduce and distribute publicly paper and electronic copies of this thesis document in whole or in  
part in any medium now known or hereafter created.

Signature redacted

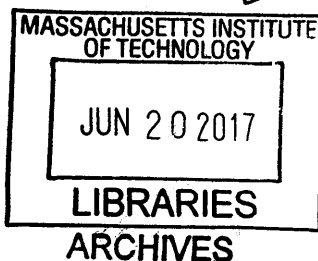
Signature of Author: \_\_\_\_\_  
Department of Architecture  
May 12, 2017

Signature redacted

Certified by: \_\_\_\_\_  
Gediminas Urbonas  
Associate Professor of Art, Culture and Technology  
Director, Program in Art, Culture and Technology  
Thesis Supervisor

Signature redacted,

Accepted by: \_\_\_\_\_  
Sheila Kennedy  
Professor of Architecture  
Chair of the Committee on Graduate Students



**Thesis Supervisor**

Gediminas Urbonas

Associate Professor of Art, Culture and Technology

**Thesis Reader**

Tobias Putrih

Lecturer, MIT Program in Art, Culture and Technology

**Thesis Reader**

Jelena Martinovic

Visiting Post-Doctoral Fellow, Department of the History of Science, Harvard University

**Thesis Reader**

Lars Bang Larsen

# Liquid User Between States and Global Platforms

By  
Rainar Aasrand

Submitted to the Department of Architecture  
on May 12, 2017 in Partial Fulfillment of the Requirements for the Degree of  
Master of Science in Art, Culture and Technology

## Abstract

This thesis explores the contemporary individual, the notion of the user, and technological cultures that stem from states to global digital platforms. Taking its lead from social studies, writings on software, and the artistic practice of the author, the thesis asks where and how does the contemporary individual fit within the digital societies of twenty-first century mediated by the technologies of tracking, listing, and surveillance?

Through reflexive analysis, this thesis takes a form of a comparative manual both to think on previous artistic work and to construct a possible world for new work, as the artistic practice of the author looks to reveal and test some of these new experiences brought on by the technologies of self-tracking and digital mediation. By building a lineage from the individual to global computational structures, this writing becomes a thread through the collection of artistic work that the author has produced while at MIT.

Thesis Supervisor: Gediminas Urbonas  
Title: Associate Professor of Visual Arts

# Table of Contents

<b>Introduction</b>	<b>6</b>
<b>Chapter 1:</b>	
<b>Numbers are Ruining Me: Liquid User Running Towards an Imaginary Finishing Line</b>	<b>12</b>
The Development of the Contemporary Individual	<b>13</b>
Entrepreneurial Self as the Governing Logic	<b>19</b>
Self-tracking Cultures as an Expression for the Entrepreneurial Self	<b>22</b>
The Self Through a Digital Body	<b>29</b>
Artistic Practices for Digital Bodies and Quantified Selves	<b>32</b>
All the Running You Can Do to Keep in the Same Place	<b>38</b>
Serious Amateur and Artist Imposter	<b>42</b>
<b>Chapter 2:</b>	
<b>E-residency Beyond Borders: Liquid User Enters a Changing State</b>	<b>45</b>
Background: the Turn to E-democracy	<b>49</b>
Soft Power and Small States	<b>53</b>

E-residency and 10 million Digital Estonians	56
State of Cloud	60
<b>Chapter 3:</b>	
<b>Providing Good Service: Liquid User Roaming the Planet</b>	65
Infrastructure Beyond Borders	66
The Individual Becomes the User	69
Hope Products: Conflicts in Space	74
<b>Conclusion</b>	79
<b>Acknowledgements</b>	81
<b>Bibliography</b>	82
<b>List of Images</b>	90

## Introduction

We are facing the world with a unique kind of reciprocity today. On the one hand, new digital technologies have brought us an updated version of proximity to other people and information, as time and space are marked with continuous availability. On the other hand, lived realities presented by these digital platforms have become so noticeably different from one another, as almost paradoxically the discrepancies in space are made visible by processing speed of information. In this space and time, the thesis explores the rise of this twenty-first century Western individual and compares it with the changing statuses of states in a world of networked global digital platforms.

While looking at the contemporary subject through artistic practice, the scope of this thesis is both broad and personal. It is speculative and impenitent in mixing social studies and critical theory with my continuing artistic research by the way of writing on software, infrastructure, and contemporary politics. Admittedly, the text is overarching in its ambition, but not conclusive in attempting to look for connections between multiple layers of contemporary life. For this reason the writing here is by no

means a complete study of the current political, cultural, and economical situation, but more of a possible lineage from the individual to the state and on to the planetary scale of infrastructure, fixing certain moments in time through my own artistic work.

Ultimately, this thesis can be seen as a reflexive manual for my own artistic work that brings together layers of interests that can all be grouped under the question: What kind of subjects does this financialized digital society of tracking, monitoring, and mediation produce? No one mode of reasoning can be complete when trying to answer that question, thus the claims presented in this thesis are certainly not absolute, but can be seen more as a flow between layers of research that have informed my artistic practice. If some of the twentieth century social philosophy was looking for the idealized subject within a society, then this thesis makes no such claims – if anything, this is a rejection of a unified and homogenous type, even if simplification for the sake of an argument in some situations cannot be avoided.<sup>1</sup>

The work aims to find answers to the central question considering the contemporary individual by focusing on different levels of organization (digital platforms, tracking technologies, e-states) and offer examples of relevant changes within societies by moving from the individual to the planetary scale. As there is certainly a lot of writing that lapses into a reactionary and oversimplifying argument that neoliberal policies and politics are the source of blame for everything that is wrong with the current world, the aim here is to avoid such devoid value judgments. But as it has become a common knowledge that the implementation of these policies within Western states has also meant the growing rates of inequality, considering both access and material means, it would be hard to avoid the elephant in the room.<sup>2</sup> The individual, the states, the digital platforms, and the financial

---

<sup>1</sup> Herbert Marcuse's "one dimensional man" and Jean Paul Sartre's "serial individual" serve as examples of such attempts to distill an ideal form of individual and citizen within the context of Western societies. See: Marcuse, Herbert. *One Dimensional Man: the Ideology of Industrial Society*. London: Sphere Books, 1968. Sartre, Jean-Paul. *Critique of Dialectical Reason*. London: Verso, 1991.

<sup>2</sup> This rising inequality can certainly be countered with the continuously growing number of people who have been lifted out of poverty outside the traditional rich countries, yet even IMF admits that neoliberal policies have increased the rates of inequality:

markets have certainly become increasingly entwined in ever growing complexity, something that is a source of interest for my research. Writing this thesis at MIT is somewhat paradoxical, considering how Wendy Brown has described the way students in universities know best, how every aspect of life has become more and more about financializing personal time and branding early and well.<sup>3</sup> Framing this text cannot stand outside the same neoliberal systems of education and knowledge production that take place at MIT – an academic and research institution that produces cutting edge knowledge on daily basis next to its equally strong brand value. So in modestly self-reflexive way that implicitly reflects on these past two years at the MIT Program in Art, Culture, and Technology, I intend to explore self-practices through which a very certain kind of expressive managerial being evolves into existence on all these organizational layers. That is a position of the entrepreneurial self, who financializes every aspect of its life or through self-tracking, which in its ideal can be seen to offer hope for a more efficient and controllable life, a form of digital numerical determinism.

Part of this transformation towards the self-tracking entrepreneurial self has happened through the emergence of various new digital technologies that shape interactions between people and environment. There is certainly nothing new in the use of technological tools both to externalize the mind and the body and to augment their capabilities, but the continuously rising importance of data in everyday life, and the availability of various tools to collect and use that data have opened up new frontiers for such a technology to become more present and persistent. This change can be observed both in work and leisure activities with the implicit goal to maximize the levels of efficiency and to automate workflows among other things. And with the growing amount of information required to be processed every day by individuals, technological tools to measure, track, collect, guide, and list become ever more essential in helping to make sense of such a world. It is here that the writing ponders about living within this context of individual liberties and whether these

---

Ostry, Jonathan D, Prakash Loungani, and Davide Furceri. "Neoliberalism: Oversold?" *Finance & Development*, International Monetary Foundation, June 2016.  
<https://www.imf.org/external/pubs/ft/fandd/2016/06/ostry.htm> accessed April 25, 2017.

<sup>3</sup> Brown, Wendy & Graw, Isabelle, "Invest yourself!", *Texte Zur Kunst*, Vol. 26:106, 2016, 38.



technologies that are shaping human lives also come to directly challenge those freedoms in any way.

As a native of Estonia, a country that has gained global recognition over the quick adaptation of new digital technologies, I allow myself to approach this writing from the first hand user's position that is at times certainly critical. Yet, this does not amount to technophobia or a neo-luddite position, nor is it a reactionary move, but a quest to understand the cultural, political, and personal intricacies that come to the forefront when considering how the individual, state, and global structures have changed with the use of these digital technologies. I employ the term liquid user, as liquidity by way of being a material metaphor serves the contemporary subject well, leaving the possibility to porously enter the cracks of diminishing states and rising global platforms and to move around and between them as an artist, citizen, and user. This liquid form leaves the possibility to avoid capture and entrapped of art into fixed categories.

Each chapter takes a different relation into consideration and whether it is between the human and self-tracking technologies, state and branding cultures or citizen-user and loyalty in the global digital economy, the writing is also a reflection on artistic work that is dealing with the stated topic. In my artistic practice I have used exacerbation as a tactic both with humor and delicacy with the aim to reveal some of the less visible layers of the topics discussed here. As my artistic work is not so much interested in the very personal and biographical aspects, the self-reflexive position is certainly somewhat removed and asking relevant questions from further away.

Chapter 1 starts out with exploring the contemporary individual and the rising presence of various digital technologies that are in everyday use by the contemporary subject. The main focus of the chapter is on the self-tracking practices that happen at least partially thanks to the rise of new digital technologies that work with data. By exploring how these technologies are used, the chapter also looks at the construction of the entrepreneurial self. On one hand the subjects of the current political order have more liberties and space for expression, but on the other hand this arrangement has

allowed work to enter parts of the quotidian life that even recently were considered to be something very different to work. The chapter also looks at the body as the vessel for self-expression, be that through technology or other markers of identity. The artistic work considered in this chapter is the endurance performance *Surplus; Numbers are Ruining Me* that took place in December 2016 on a treadmill over the course of 8,5 hours.

Chapter 2 moves from the individual to the state and its changing relations within the digital platforms. The case study considered here focuses on the shifting ideas considering internet in Estonia. When Estonia regained its independence in 1990s, the country started pushing for a more participatory society through the use of internet. Since then, much has changed how people use internet and a lot of the language has shifted from the ideas of inclusion to terms that are calling for a more efficient functioning of the economy. The chapter also explores how states have to take part of the branding and marketing strategies in order to remain relevant in a situation where large corporations have more visibility, loyalty and revenues than some of the traditional Westphalian states. The artistic work in focus in this chapter is a video piece *State of Cloud* that was conceived together with Mikk Madisson in 2014 and that looks at the archetypical image of system administrator running the envisioned state of cloud.

Chapter 3 moves on to the global platforms and standards by exploring how they shape the contemporary individual and the state. In a situation where networked digital platforms aim to work seamlessly over national borders by sometimes shaping these very borders and taking over a central position in user's lives by absorbing some of the state functions, a question rises about the responsibilities and capabilities of the citizen. It is here, that the notion of user-citizen comes into being as suggested by design theorist Benjamin Bratton.<sup>4</sup> As some of the weakened Westphalian states are struggling with everyday politics, the digital platforms on planetary scale become ever more important in shaping the subject in these new forms of geopolitics. Yet, while the self is asked

---

<sup>4</sup> Bratton, Benjamin H. *The Stack: On Software and Sovereignty*. Cambridge, MA: MIT Press, 2016, 13, 36, 110.

to continuously express and reinvent itself, the global platforms are already working towards models of collective intelligence that rejects the model of a lone genius figure. Two works that are considered in this chapter are *Hope Products* and *Barbed State* both made in 2016 that focus on digital, national, and folkloristic borders.

The thesis concludes with some possibilities for engagement as an artist within these systems by offering reflection into the current work in progress named *Liquid User Enters the World of Empty Secrets*. This work looks at the conspiring user in the current media landscape as it aims to bring all these previous layers of research together.

This thesis is first and foremost a guide for my own artistic work through research. Although the writing presented here is mostly historically reflexive, both in looking at previous work and in its comparative mode, it also serves as the basis for any future practice and research that will focus on the changing relations between humans and technology. Additionally, I do not assume that the history described on these pages is a shared history for each and every one who might read this thesis, hence the candid admission of the work being at least partially personal.

## Chapter 1:

# Numbers are Ruining Me: Liquid User Running Towards an Imaginary Finishing Line

We may look back at self-expression as the terrible deadening conformity of our time. It doesn't mean it's bad and it doesn't mean it's a fake thing. It's gotten so that everyone does it – so what's the point? Everyone expresses themselves every day.<sup>5</sup>

Adam Curtis

The opening chapter of this thesis looks at the rise of the contemporary individual in the context of Western societies and global digital platforms. The core focus of this chapter is on the technologies of self-tracking and how these practices help sustain the entrepreneurial, expressive, and quantified selves. Finally it explores the concepts of contemporary statistical self and body through artistic practice, by offering some examples of works that are attempting to challenge these practices. The aim of this chapter is not to offer a complete understanding of contemporary individual (even if such thing were possible), yet some form of historical theorizing becomes a necessity, as it also lays out

---

<sup>5</sup> Curtis, Adam. "From a conversation with Yancey Strickler", *The Creative Independent*, 2017 <https://thecreativeindependent.com/people/adam-curtis-on-the-dangers-of-self-expression/> accessed April 25, 2017.

the groundwork for the following chapters that focus on the capacities and responsibilities of the contemporary state, digital platforms, and the individual liberties to roam these systems. The same applies to the chosen artistic context, as the examples here reflect more of a personal interest in given works over the idea of constructing a coherent art history concerning these practices. The chapter finishes with the description and analysis of my own endurance performance that took place at MIT, in an attempt to thread these theoretical interests together by exacerbation, humor, and self-reflexivity.

### **The Development of the Contemporary Individual**

The emergence of the individual political Western subject of can be seen to have multiple roots. Although this has been contested by some recent writing, established liberal theory posits its rise in opposition to religion in the early modern era, along with other Enlightenment ideas of the eighteenth and nineteenth centuries.<sup>6</sup> Early modern thinkers like John Stuart Mill and Adam Smith saw individual rationality as a moral imperative in opposition to longstanding religious order. As this was also the time when Western societies started moving towards the governing system of industrial capitalism, individuals who held values of moral and material growth became the central subjects of political thought. For Mill, individualism meant liberty, and liberty to express meant the widening of human knowledge.<sup>7</sup> This utilitarian thinking can be seen to promote individuality for progress through knowledge and as a step away from religious norms and traditions.

Adam Smith can be considered to be the first one to come up with the notion of economic individualism. According to Smith, when individuals are left to their own devices, the resulting system holds an essentially self-adjusting quality that ensures the maximum satisfaction of individual

---

<sup>6</sup> Some recent work suggests that the idea of the individual arose and gradually displaced the claims of family, tribe, and caste as the basis of social organization already in early Christian society. See: Siedentop, Larry. *Inventing the Individual: the Origins of Western Liberalism*. UK: Penguin Books, 2015.

<sup>7</sup> Mathias, Michael B. *John Stuart Mill: On Liberty*. New York: Pearson Longman, 2007.

desires.<sup>8</sup> For Smith the individual subject takes part in an economic exchange that posits it as the *homo economicus* within the society.<sup>9</sup> Although it can be contested whether Smith is the first capitalist thinker *per se*, it becomes clear that from the eighteenth century onwards individual in the Western sense of the word came to signify the separateness of the subject. Thus the development of the individual cannot be seen without the rise of power that is exercised through markets that also proliferated around that time.<sup>10</sup> Accordingly, “progressive” individual liberty became the central moral and political imperative, as the rights to freedom and self-realization served as the basic principles for the new kind of individual.

If individualism explains the political division of subjects within a society and offers a way to understand the beginnings of current notions of individuality, then more recently theorists have concentrated on the topic of selfhood or identity while looking at the formulation of the individual. In such instance, selfhood as a term comes to express the quality that constitutes one’s individuality or the state of being an individual. Although the thesis touches on both, it is important to make a distinction between the subject that defines the uniqueness of the experiences and the self that defines the uniqueness of the being. The concept of self has been approached slightly differently in psychology, where there is a division between a core self and the self as an actor with agency.<sup>11</sup> In social studies, which serve as the primary interest for this thesis, the self is the expressed individuality of the subject. Nonetheless, the individual should not be looked at as a fixed category, but as a shifting mode of being for the self that can make itself new according to the form of governance. In short, the self can take different forms and expressions.

---

<sup>8</sup> Smith, Adam. *An Enquiry into the Nature and Causes of the Wealth of Nations*, ed. R. H. Campbell, A. S. Skinner and W. B. Todd. Vol. II in the Glasgow Edition of the Works and Correspondence of Adam Smith. Oxford: Clarendon Press, 1976.

<sup>9</sup> Campbell, T. D. “Adam Smith and Natural Liberty”, *Political Studies*, Vol. 25, 1977, 523–534.

<sup>10</sup> There are writers who argue that for Smith, individual liberty is not the end, but the means, of sustaining social order and property. See: Denis, Andy. “Was Adam Smith an Individualist?” *History of the Human Sciences*, Vol. 12:3, 1999, 71-86.

<sup>11</sup> Glas, Gerit. “Person, Personality, Self, and Identity: A Philosophically Informed Conceptual Analysis”, *Journal of Personality Disorders*, 20:2, 2006, 126-138.

For social theorist Michel Foucault, the self is fashioned through the expression of power and intersections of practices. Looking back at the organization of ancient Greek societies, Foucault demonstrated how different practices of the self are dependent on their cultural and historical setting.<sup>12</sup> Reflecting on Plato's *Alcibiades*, Foucault indicated how phrases like "know yourself" and "taking care of oneself" became the central ethical concerns for the political subjects. For Foucault, the members of society assume their proper position through the practices that focus on the care of the self.<sup>13</sup> The production of self happens through the use of technologies of the self, which allow people to engage in their own practices of selfhood.

The possibilities for the individual to take care of itself as a practice of selfhood have changed with the gradual change of free-market policies that have taken place since the 1970s. These policies are commonly grouped under the term of neoliberalism that serves as basis for the "framework of meaning with which to make sense of the world."<sup>14</sup> Most of these changes have reduced the size of the traditional state and placed the ethical project of taking care of the self in the hands of the individual. Wendy Brown has described the current political order in her book *Undoing the Demos* as follows:

Neoliberalism is most commonly understood as enacting an ensemble of economic policies in accord with its root principle of affirming free markets. These include deregulation of industries and capital flows; radical reduction in welfare state provisions and protections for the vulnerable; privatized and outsourced public goods, ranging from education, parks, postal services, roads, and social welfare to prisons and militaries; replacement of progressive with regressive tax and tariff schemes; the end of wealth redistribution as an economic or social-political policy; the conversion of every human need or desire into a profitable enterprise, from college admissions preparation to human organ transplants, from baby adoptions to pollution rights, from avoiding lines to securing legroom on an airplane; and,

---

<sup>12</sup> Foucault, Michel. *The Care of the Self: The History of Sexuality vol. 3*, New York: Random House Inc., 1986.

<sup>13</sup> Foucault, Michel. *Technologies of the Self* eds. Luther H. Martin, Huck Gutman and Patrick H. Hutton. Amherst: Univ. of Massachusetts Press, 1988, 16-49.

<sup>14</sup> Hall, Stuart and Alan O'Shea. "Common-sense Neoliberalism", 2013.  
[www.lwbooks.co.uk/journals/soundings/manifesto.html](http://www.lwbooks.co.uk/journals/soundings/manifesto.html) accessed April 25, 2017.

most recently, the financialization of everything and the increasing dominance of finance capital over productive capital in the dynamics of the economy and everyday life.<sup>15</sup>

As described, these policies have pushed for a diminished state that is more dependent on the free market ideologies. In this situation the practice of selfhood takes on different forms that are dependent on these changes. The production and the performance of selves can certainly be seen as self-empowering for the individual, when it offers the possibility to act upon its self-interest and ideas of belonging to a larger social group that is in this age less dependent on geographical location. At the same time the technologies that facilitate connection can also bring forth alienation as the differences in lived realities become more and more apparent through the mediation. So what facilitates the practices of selfhood can also constrain and alienate. According to British sociologist Anthony Giddens, clear changes that happened to the governing institutions in the end of twentieth century generated a complex combination of liberties and constraints, where the self became reflexive in the society that is dualistic with its threats and choices.<sup>16</sup>

However this performative task of selfhood can also become burdensome for the alienated individual, causing both personal and societal unrest. Sociologist Zygmunt Bauman has observed how the change of norms and communities has amounted to the lack of security for the individual to find its place within a society.<sup>17</sup> For Bauman the conditions that the current self-production of selves brings forth, amounts to becoming a consumption of prepackaged performances:

Self-realization, presumed to be a DIY job and an inalienable task of the 'self's owner', is, however, much too complex an affair for people trained in the 'nowist' culture (that is, afflicted by a steady shrinking of their attention-span, by shallowing of memory and by fast-growing impatience) to resist the temptation to settle for performances of self-realization instead of the real thing. The job of self-producing is considerably, radically eased by the massive supply of mass-produced assembly kits for currently recommended performances.<sup>18</sup>

---

<sup>15</sup> Brown, Wendy. *Undoing the Demos: Neoliberalism's Stealth Revolution*. Cambridge, MA: MIT Press, 2015, 28.

<sup>16</sup> Giddens, Anthony. *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Stanford: Stanford University Press, 1991.

<sup>17</sup> Bauman, Zygmunt. *Modernity and Its Outcasts*, Cambridge: Polity, 2004.

<sup>18</sup> Bauman, Zygmunt and Rein Raud. *Practices of Selfhood*, Cambridge: Polity, 2015, 69.



Although it can be read as a call for a real or authentic self, something that in itself can be contested, it is important to notice the production of selves as a form of economic transaction. As the practice of selfhood becomes harder to maintain, possibilities of premade identities come to serve such act as a consumer. In addition, Bauman has a pessimistic take on the common practice of the continuous reinvention of the self, which in the end can be seen to have a numbing effect.<sup>19</sup> According to Bauman the process of constructing an identity is packaged as something that is fun and as something that should amount to individual freedom. Nevertheless, he points out that although the individual may think of being free, it is essentially required to take part in this process of continual reinvention, hence rendering the idea of freedom meaningless. So the practicing of selfhood reaches a paradoxical situation here, captured perfectly by Caroline Busta and Anke Dyes in a recent issue of *Texte Zur Kunst* that was dedicated to the contemporary individual:

There is an inherent tragedy to this individuated being that cannot escape itself; however seemingly autonomous, it is nevertheless beholden to, and even constituted by, a program of being in the world that it must internalize at the price of great suffering.<sup>20</sup>

For Busta and Dyes this program is the neoliberal political order mentioned beforehand. Although the individual is purposed to be free in its choices, it is also constrained by the same logics of solitude and lack of community. Comparably, sociologist Deborah Lupton has observed how the ethical project of taking care of the self is not always easy to maintain as the requirement of “self-awareness based on critical and constant reflection and the acquisition of self-knowledge” as part of becoming “a citizen who is responsible, capable, and self-regulated in the pursuit of happiness, health, productivity, and wellbeing” is simply demanding.<sup>21</sup> In addition, media theorist Wendy Chun proposes that the contemporary subject has become a “creature of update” and within this system “to be is to update.”<sup>22</sup> This subject is asked to change its everyday habits with the promise of a more productive and efficient life in anticipation of greater levels of happiness, but at the same time this

---

<sup>19</sup> Bauman, Zygmunt. *Liquid Times: Living in an Age of Uncertainty*. Oxford: Wiley, 2013.

<sup>20</sup> Busta, Caroline & Anne Dyes. “Introduction”, *Texte Zur Kunst*, Vol. 26:106, 2016, 6.

<sup>21</sup> Lupton, Deborah. *The Quantified Self: a Sociology of Self-tracking*. Cambridge, UK: Polity, 2016, 46.

<sup>22</sup> Chun, Wendy Hui Kyong. *Updating to Remain the Same: Habitual New Media*. Cambridge, MA: The MIT Press, 2016, 2.

life is also lived in a constant fear of an impending crisis, whether it is imaginary or real. After time these updates become banal, but the dependency and the drive to update remains as a form of self-practice.

This transformation and call for a constant update can also be observed from the perspective of risk society. Sociologists Ulrich Beck and Anthony Giddens both describe the effects of risk on everyday life.<sup>2324</sup> Beck argues that the contemporary Western society is situated in a culture of risk, which has deep impacts on the functioning of everyday life. For Beck, the individualization of experience and the changes to risk distribution bring forth the construction of contemporary self-identities that are transient and that take into consideration the precarious position of the individual, who has to face the risks alone, as some of the collective support structures are diminishing. As the risk society is always geared towards future, managing probabilities and uncertainties becomes an incessant necessity. For Giddens risks are hazards that are linked to the future outcomes, so the management of risk is an attempt to predict and control the future. But without the collective support, the individual has to become the expert in shaping its own lived experience. Yet, as Beck himself notes, the notion of risk is a complex collection of interests that are not always easily explainable:

The concept refers to those practices and methods by which the future consequences of individual and institutional decisions are controlled in the present. In this respect, risks are a form of institutionalized reflexivity and they are fundamentally ambivalent. On the one hand, they give expression to the adventure principle; on the other, risks raise the question as to who will take responsibility for the consequences, and whether or not the measures and methods of precaution and of controlling manufactured uncertainty in the dimensions of space, time, money, knowledge/non-knowledge and so forth are appropriate.<sup>25</sup>

So according to Beck risks that the individual has to face are uncertain and the responsibility alleviating the conditions that are brought on by risk society are also dependent on the particular situation. Gradually, managing risk becomes a necessity for the individual, as it is not only living from day to day, but also calculating one's commitment to a particular future. So living in a risk society

---

<sup>23</sup> Beck, Ulrich. *Risk Society: Towards a New Modernity*. London: Sage Publications, 1992.

<sup>24</sup> Giddens, Anthony. "Risk Society: The Context of British Politics" in J. Franklin (ed.) *The Politics of Risk Society*, Cambridge: Polity Press, 1998, 23–34.

<sup>25</sup> Beck, Ulrich. 'Foreword' in S. Allan, B. Adam and C. Carter eds. *Environmental Risks and the Media* London: Routledge., 2000, xii.

becomes a form of living with numbers and evaluation from the self-prescribed expert position. Both for the successes and failures mathematics become the calculus for this form of organization. And while the interventions from state became the guarantee of risk, the idea of complete control is surrendered both over the individual and the markets.<sup>26</sup> This contemporary individual has come to practice its selfhood in a constant possibility of impending crisis.

In this light, it is important to note that the concept of risk has entered the everyday life through the rise of market economy. The economic development that took place during the eighteenth and nineteenth centuries brought the notion of risk into wider use. Risk became associated with the economy through the activities of financial sector and by the twentieth century, it functioned as a description for possible outcomes of investment.<sup>27</sup> To this day, risk is very much related to economic developments through financial speculation, asset management, and statistical calculation. In short, market based economy does not function without an element of risk.

### **Entrepreneurial Self as the Governing Logic**

This uncertainty and instability within societies brings forth another logic for an individual who is expected to live within the risk societies – the entrepreneur. The concept of entrepreneur was conceived by eighteenth century economist Richard Cantillon, who described it as someone who is a “bearer of risk.”<sup>28</sup> It was understood as a minor component of capitalism, where some individuals would participate in risky interventions that could lead to financial successes. Yet, in this current economical climate, the idea of a self-sufficient entrepreneur has become a central principle for the organization of the society. Imre Szeman describes the entrepreneur as “the neoliberal subject par

---

<sup>26</sup> Vallye, Anna. “Design and the Politics of Knowledge in America, 1937-1967: Walter Gropius, Gyorgy Kepes” PhD diss., Columbia University, 2011, 105.

<sup>27</sup> Mythen, Gabe. *Ulrich Beck: a Critical Introduction to the Risk Society*. London: Pluto Press, 2004, 13.

<sup>28</sup> Cantillon, Richard. “An Essay on Economic Theory”, Auburn: Mises Institute, 2010.

excellence.”<sup>29</sup> For Szeman we have reached a situation where the market has in many ways replaced the society:

The figure of entrepreneur is one around which political, economic, aesthetic, and educational structures have been and are still being reshaped: this more than anything else justifies its exemplary position at the outset of the twenty-first century – a position that is quickly coming to define the normal operations of markets *and* societies around the world.<sup>30</sup>

As mentioned beforehand, recent decades have brought a change both to the policies of Western societies and to the way the individual is asked to perform its selfhood. Fittingly, philosophers like Michel Feher have argued how the *homo economicus* is more and more interested in developing its portfolio value in all domains of its life, an activity undertaken through practices of self-investment and attracting investors.<sup>31</sup> Both Wendy Brown and Feher have looked at how the current political order has reached a phase where its mission is to remodel the sovereign subject to make it reflect a financialized institution. Brown writes: “Both persons and states are construed on the model of the contemporary firm, both persons and states are expected to comport themselves in ways that maximize their capital value in the present and enhance their future value, and both persons and states do so through practices of entrepreneurialism, self-investment, and/or attracting investors.”<sup>32</sup> Under this model the corporate logic has entered both into the personal and the public, where the individual (and the state, as will be shown in the next chapter) are asked to constantly produce and reinvent their various selves with whatever means necessary, in order to retain its investment and brand attractiveness. As a result, the financialization of the everyday life has made a significant impact not only on the way humans interact with each other, but also on the way the self is constructed within Western societies.

---

<sup>29</sup> Szeman, Imre. “Entrepreneurship as the New Common Sense”, *South Atlantic Quarterly*, Vol. 114:3, 2015, 474.

<sup>30</sup> *Ibid.*

<sup>31</sup> Feher, Michel. “Self-Appreciation”, *Public Culture*, Vol. 21:1, 2009, 21-41.

<sup>32</sup> Brown, Wendy. *Undoing the Demos: Neoliberalism's Stealth Revolution*. Cambridge, MA: MIT Press, 2015, 28.

Thus, the care of the self becomes an investment that is a practice to enhance the financialized self's future value through self-awareness and acquisition of self-knowledge, as they make themselves central to their own lives when they take on the ethical project of selfhood. As such the subject is supposed to assume responsibility for its own successes and failures. Care for the self becomes a norm for the subject and as such these norms create social realities in their own turn.

In Szeman's description, entrepreneur has been made into a universalized model for all citizens that may even replace the notion of citizen as such.<sup>33</sup> The rise of entrepreneur can be seen in conjunction with the diminishing status of the welfare state as part of changes brought on by the neoliberal policies that were mentioned earlier. In many ways, the individual might not see any other viable alternative to becoming an entrepreneur. Sociologist Ulrich Bröckling has demonstrated in his seminal study on the subject, how entrepreneurial self has become the imperative for Western societies.<sup>34</sup> This can be seen as a fully financialized development to the original right of individual liberty that was the moral imperative for the Enlightenment thought. In this case the fulfillment for the contemporary individual happens through achievement, but not every individual subject of the society is able to function on this financialized level of selfhood. These differences between lived realities can cause much societal malaise both for the individual and larger communities. Hopelessness brought on by this condition of inequality can be the driver both for alienation towards extremism, substance abuse and rising rates of mortality among social groups.<sup>35</sup>

---

<sup>33</sup> Szeman, Imre. "Entrepreneurship as the New Common Sense", *South Atlantic Quarterly*, Vol. 114:3, 2015, 474.

<sup>34</sup> Bröckling, Ulrich and Steven Black. *The Entrepreneurial Self: Fabricating a New Type of Subject*. Los Angeles: Sage, 2016, xi.

<sup>35</sup> Case, Anne, Angus Deaton. "Mortality and Morbidity in the 21st Century." <https://www.brookings.edu/wp-content/uploads/2017/03/case-deaton-postconference-april-10-2017-with-appendix-figs.pdf> accessed April 25, 2017.

Deaton, Angus. *The Great Escape: Health, Wealth, and the Origins of Inequality*. Princeton: Princeton University Press, 2013.

## Self-tracking Cultures as an Expression for the Entrepreneurial Self

In this light the production of the financialized entrepreneurial self can be seen to have taken a new form through digital tracking technologies that have proliferated recently. Historically the practices of recording, tracking and analyzing information about oneself have been in use for thousands of years. These activities have shaped human cultures and have been a source for much of historiography. As such, the emergence of digital technologies that facilitate these aspects of life, can be seen at least partially as a continuation to activities such as keeping a diary or tracking of one's medical records.<sup>36</sup> In a similar manner, they can also be considered as the logical continuation in the development of the contemporary individual, who is able to take charge of one's very own life. These practices of the self are part of the broader processes that shape the current technological cultures, which look for ways to optimize aspects of everyday life.

Today, self-tracking can be seen as the exercising of the care for the self through the collection of information in hope that this information can be transformed into usable knowledge about oneself. Yet, there can be other reasons for the practice of self-tracking and different technologies offer different ways to self-monitor personal activities. For some people it serves as a digital substitute for a diary, as a means to remember one's life. For others it can be about self-improvement – whether it is about emotional wellbeing, health, fitness, sexual activity or other biological variables that can be measured and quantified, as quantification of data is what drives many of these practices. Tracking of the self can be seen also as a question of trust, when the liquid user cannot even trust itself and would look to digital certainty through the use of numbers. In a statistical world, numbers can be reassuring, while having to constantly reevaluate one's position within that system. But different motivations are not in any way exclusive, neither are these motivations usually as definite and categorized as they are presented here in writing, via sociological studies.

---

<sup>36</sup> Crawford, Kate, Jessa Lingel & Tero Karppi. "Our Metrics, Ourselves: A Hundred Years of Self-Tracking from the Weight Scale to the Wrist Wearable Device", *European Journal of Cultural Studies*, 18:4-5, 2015, 479-96.

The availability and presence of digital devices that enable the collecting of data of everyday human activities has grown exponentially in the past decade. Digital data has become a highly valuable commodity that can offer unprecedented potential insight into a wide range of subjects, from security to healthcare to commercial human behavior.<sup>37</sup> Bodies, spaces and work are constantly monitored through the collection of digital data that amounts to becoming big data. But as interested third parties are collecting parts of this data with user's silent consent through the use of smartphones, social media channels and urban sensors, there are lingering questions about privacy, discrimination, and power abuse.<sup>38</sup>

Next to that "silent tracking" of data there is also a growing interest in self-generated tracking or what is often known as the 'quantified self movement'. In most cases the term is used to express the general trends of self-tracking, but the actual origins of that term come from the Quantified Self (QS) group that was initiated by Gary Wolf and Kevin Kelly in 2007 in San Francisco.<sup>39</sup> Since then, there has been a number of offshoots from the group all around the world and as of March 2017 the QS website states that there are regular meetings in 38 countries, where people explain how they have collected their data and what they have learned through such practice.<sup>40</sup> These QS meetings have attracted people with the premise of getting to know oneself better through understanding of human bodies with the collection and analyzing of data and information that the body emits. Most popular example of such device is the Fitbit bracelet activity tracker, which enables the monitoring of distance, steps, heart rate and sleep among other things. As of March 2017, the QS website lists 505 different tools for a array of activities that could be monitored through digital technologies,

---

<sup>37</sup> Kitchin, Rob. *The Data Revolution: Big Data, Open Data, Data Infrastructures and Their Consequences*. London: Sage, 2014.

<sup>38</sup> boyd, danah & Kate Crawford. "CRITICAL QUESTIONS FOR BIG DATA", *Information, Communication & Society*, 15:5, 2012, 662-679.

<sup>39</sup> Neff, Gina & Dawn Nafus. *Self-tracking*, Cambridge, US: MIT Press, 2016, 31-32.

<sup>40</sup> The QS website states: "*Our mission is to support new discoveries about ourselves and our communities that are grounded in accurate observation and enlivened by a spirit of friendship.*"

<http://quantifiedself.com/about/> accessed April 25, 2017.

ranging from tracking one's posture to the speed of eating.<sup>41</sup> Through the increasing capabilities of these technologies the tracking has become more digitally detailed (not necessarily more accurate) and the reasons for tracking can vary from commercial to personal use to artistic practice, as it will be demonstrated later.

The QS movement is purposed to be a collective celebration of the individual and one's own bodily ability. Gary Wolf has himself described how the practice focuses on discovery and not accepting the prescribed order of things:

Trackers focused on their health want to ensure that their medical practitioners don't miss the particulars of their conditions; who record their own way to personal fulfillment amid the seductions of marketing and the errors of common opinion; fitness trackers are trying to tune their training regimes to their own body types and competitive goals, but they are also looking to understand their strengths and weaknesses, to uncover potential they didn't know they had. Self-tracking, in this way, is not really a tool of optimization but of discovery.<sup>42</sup>

The original QS group uses the practice of self-tracking of data for self-experimentation and exploration. But as stated before the reasons for the myriad number of practices of self-monitoring can be very different and theorizing about such practices can begin from psychology, sociology and cultural theory, and in this case it can be seen as a practice of selfhood and an expression of identity. This self-monitoring can also be seen as a toolkit for the management of risk, through self-care and as an exercise in biopolitics, as will be explored in detail later on.

Certainly, one of the reasons for the spread of self-tracking cultures is the mere availability of technologies that permit such behavior. As Deborah Lupton writes: "Whether or not we choose to take up digital technologies such as smartphones, the extent to which digital devices and sensors are embedded in public spaces and social institutions means that we cannot easily escape becoming a subject of digitization. Public and private spaces are now reconfigured by computer code."<sup>43</sup> In a similar manner Mark Deuze suggests that the spread of digital media into most aspects

---

<sup>41</sup> <http://quantifiedself.com/guide/> accessed April 20, 2017.

<sup>42</sup> Wolf, Gary. *The Data Driven Life*, New York Times, April 28, 2010. <http://www.nytimes.com/2010/05/02/magazine/02self-measurement-t.html> accessed April 25, 2017.

<sup>43</sup> Lupton, Deborah. *The Quantified Self: A Sociology of Self-tracking*. Cambridge, UK: Polity, 2016, 38.



of everyday life is so wide-ranging that we should now not talk about “living *with* media, but rather *in* media, as such we are living *media life*.”<sup>44</sup> So the spread and ubiquitous nature of these technologies has had an extensive effect on how we interact both with other humans and non-human agents.

One possibility is to see these contemporary practices of selfhood in a relation to the mirror stage parable. Benjamin Bratton has observed how the user of these digital technologies becomes fascinated with its own reflection through the use of these practices:

This administrative auto-objectification turns the gaze of user-centered design research inward on itself, inflating it toward existential closure. This “care of the self” is a fabricated hypertrophic self-interpolation, a hyper individuated diagnostics perfectly suited to cube farms. For the User, the reflection provides recognition and misrecognition, not so unlike Jacques Lacan’s mirror stage parable, whereby the visual coherency of the body reflected back is believed to confirm the psychological coherency of the self who stares at it. Before the primal encounter with a mirror, the temporality of inner experience was confused, unable to differentiate the mental imagery of direct experience from memory, from a desired wish; present, past, and future are all a jumble. On seeing the coherent image reflected back, seeing outlines following movements following outlines, the grounding of a coherent sense of self as a self-directed subject, and as an object in the world among others, was not only possible but imperative.<sup>45</sup>

For Bratton “the user reaches a certain apotheosis”, while taking part “in the willful fabrication of autonomic self-interpolation.”<sup>46</sup> But to think of self-tracking practices merely from the perspective of narcissism would be limiting, because this identity construction through one way reflection would make the subject-object relationship passive and one sided. Instead these interactions with the devices are relational, as they also store, process and generate information about us independently. And the practice of selfhood calls for a form of self-reflexivity and self-awareness in any case.

One possibility to view this change where human beings are functioning together with digital technology comes from a materialistic perspective. In such a case human beings can be seen as forming a part of larger ecological and technological structures, which take into consideration materiality beyond human scale. The recent interest in new materialist and realist philosophies in

---

<sup>44</sup> Deuze, Mark. *Media life*. Cambridge: Polity Press, 2013, 137.

<sup>45</sup> Bratton, Benjamin H. *The Stack: On Software and Sovereignty*. Massachusetts: MIT Press, 2016, 261.

<sup>46</sup> *Ibid.*, 253.

conjunction with artistic practices serves as one example of looking to understand the material world beyond human scale, an interest where digital technologies play a central role. These philosophical stances propose that thought can think outside itself and that reality can be known without its being shaped by and for human comprehension.<sup>47</sup>

Perhaps more importantly, looking at self-tracking from the perspective of surveillance and biopolitics can highlight some inherent logics of these practices. Self-tracking can certainly be seen as a form of self-surveillance, where the individual practicing it, stands in a position of constant self-evaluation through the information that is gathered. Some researchers have used the term 'sousveillance' here, which translates as watching from beneath.<sup>48</sup> This is part of being in social media, where already the mere presence offers the user a way to watch over others, during which some practices that might have been considered coercive before have been incorporated into users everyday life. But this aspect of consumers taking over some of the invasive practices of state and security institutions can also be observed the other way around.

One example how an early benign observation culture became a prediction for a future state of surveillance comes from the British "Mass Observation" movement. Beginning in the 1930, the movement offered a benevolent version of both the quantification and pervasive surveillance that was to follow decades later. This pre-digital version of scientific study of social behavior promoted the observation of wide-ranging everyday activities, such as alcohol consumption and eating habits

---

<sup>47</sup> In this case, technology and other elements of the surrounding complex systems beyond human-world can be viewed independent from human thought and perception as intelligent in their being as an object. As such the technology that the human body is coupled with can be seen as having a separate identity outside of human existence or it can be seen as a form of co-existence with data and algorithms. Although this thesis does not aim to approach the subject of the contemporary self from a new materialist perspective, it offers a potential insight to understand technology as having its own essence beyond the human-scale. See:

Cox, Christopher, Jenny Jaskey, Suhail Malik, eds. *Realism, Materialism, Art*. New York: Center for Curatorial Studies, Bard College; Berlin: Sternberg Press, 2015, 15.

Harman, Graham. *Quentin Meillassoux: Philosophy in the Making*. Edinburgh: Edinburgh University Press, 2011.

<sup>48</sup> Lupton, Deborah. *The Quantified Self: A Sociology of Self-tracking*. Cambridge, UK: Polity, 2016, 61.

by constant note taking.<sup>49</sup> The observance on such a large scale was aiming “to create a social asset that would help to analyze and change society, rather than the individual,” but in a similar manner how “contemporary quantified self-observation might become the target of interest for observers beyond ourselves, the mass observation movement became instrumentalised by the interests of the Ministry of Information, the secret services and the commercial sector.”<sup>50</sup> Although currently most self-tracking through digital devices in the quantified self movement happens voluntarily, the data amounts to information that can become valuable both to commercial and state interests and there are already instances where workers are forced to use digital trackers in their everyday work.<sup>51</sup> Consequently, the aspects of surveillance in the contemporary version of quantified self should be taken seriously.

In the book *Discipline and Punish: The Birth of the Prison*, Michel Foucault explores the idea of the panopticon prison as the dominant idea of governing. The power structure of disciplining became not only the way to restrict those who could not fit into the society under the law, but also a larger ideological tactic to govern by placing the individual in direct light, as in the model of panopticon, so that the individual would also participate in a method of self-surveillance by not being certain if they were being watched by others. Foucault writes:

Traditionally, power was what was seen, what was shown, and what was manifested. /.../ Disciplinary power, on the other hand, is exercised through its invisibility; at the same time it imposes on those whom it subjects a principle of compulsory visibility. In discipline, it is the subjects who have to be seen. Their visibility assures the hold of the power that is exercised over them.<sup>52</sup>

The model of the panopticon offers a way to internalize the act of self-monitoring, as the constant surveillance becomes a social norm and the production of the self in neoliberal societies happens in relation to these norms as such motivations become conventional for the subject. The collection of

---

<sup>49</sup> Harrison, Tom, Humphrey Jennings & Charles Madge. “Anthropology at Home”, *New Statesman and Nation*, January 30, 1937.

<sup>50</sup> Abend, Pablo & Mathias Fuchs. “The Quantified Self and Statistical Bodies: Introduction”, *Digital Culture & Society* Vol. 2:1, 2016, 5-21.

<sup>51</sup> Ajunwa, Ifeoma, Kate Crawford, Jason Schultz. “Limitless Worker Surveillance”, *California Law Review*. Vol. 105:3, 2017.

<sup>52</sup> Foucault, Michel. *Discipline and Punish: The Birth of the Prison*. New York: Random House Inc., 1975, 187.

digital data and the categorization, analysis, and assessment of individuals can all happen without the user's consent and knowledge.

Gilles Deleuze has extended the ideas of Foucault's disciplinary society of what he describes as the societies of control. When the disciplinary institutions such as prison, factory, school, hospital, and family begin to break down, new more transient modes of organization emerge that are part of the societies of control.<sup>53</sup> For Deleuze "control societies no longer pass through places of confinement", as "control is not discipline."<sup>54</sup> Deleuze uses the metaphor of highway to show both the limits and the liberties of control society as people can travel freely, but are at the same time perfectly controlled.<sup>55</sup> As Deleuze suspected, this aspect of control continues to this day, when digital highways serve as the precursors of limits and possibilities. And through the contemporary technologies of control, the human subject becomes endlessly divisible and reducible to data and numbers, or what Deleuze calls *dividuals*.<sup>56</sup> The constant gathering of data does not make us indivisible entities – instead we can be divided endlessly. Although Deleuze can be seen to have overestimated the powers of control society in its ability to exert itself, the analysis remains important as it denotes how at the same moment it may appear that the individual is acting with autonomy, but larger structures of the society are still controlling many of these intentions.<sup>57</sup>

In addition to being pervasive and limiting, these preconditioned social norms in self-surveillance and control can also become a tiring exercise for the self. If the self-tracking happens in a reflexive way considering the norms that the technology suggests, the user can find itself questioning its position

---

<sup>53</sup> Deleuze, Gilles. "Postscript on the Societies of Control", *October*, Vol. 59. 1992, 4.

<sup>54</sup> Deleuze, Gilles, and David Lapoujade. *Two Regimes of Madness: Texts and Interviews, 1975-1995*. New York: Semiotext(e), 2007, 322.

<sup>55</sup> *Ibid.*

<sup>56</sup> Deleuze, Gilles. "Postscript on the Societies of Control", *October*, Vol. 59. 1992, 7.

<sup>57</sup> Both Foucault and Derrida can be seen to drawing some of their ideas from Louis Althusser's Marxist analysis of ideology. Subjectivity is essential for Althusser, as there is no ideology except by the subject and for the subject. Through social forces, such as the ideological state apparatuses and repressive state apparatuses, the governing ideology interpellates individuals into being subjects. Althusser collapses both the "I" and the subject into one category, namely the individual subject. See:

Althusser, Louis, Etienne Balibar, Jacques Bidet, and G. M. Goshgarian. *On the Reproduction of Capitalism: Ideology and Ideological State Apparatuses*. London: Verso, 1971/2014.

regarding these norms. As Gina Neff and Dawn Nafus write: “Data can burden people with the work of determining whether their data represents ordinary human variation, a physical problem, or a social belief about health and wellness.”<sup>58</sup> In such instances predetermined numbers can be mentally burdening and tiresome. They continue:

Consider the example of activity trackers. Out of the box, most recommend 10,000 steps per day. That is more than double the US average, and, for most people, more than the official recommendation of 150 minutes of activity per week. When someone takes 7,000 steps in a day and sees the app telling her she should really be taking 10,000 steps a day, the question “Am I normal?” is bound to come up.<sup>59</sup>

This question can become mentally limiting for the user. As an example, there are already cases when people are losing sleep over their tracking of sleep.<sup>60</sup> As these practices become social norms, citizens believe that they are acting in their own interests while silently enforcing the power structures into their own lives. The self-made person might have all the freedom in the world, yet the freedoms amount to self-care or optimization of the self. However, self-tracking of one's own data can certainly democratize the use of data and make it more approachable, provided that it is fully accessible to the user, in which case the use of data can be self-empowering.

### **The Self through a Digital Body**

With the emergence of these new digital devices for self-tracking, the relationship between human body and technology is rendered more complex. As the body is continuously subjected to technological interferences that can be at times almost invisible and at times notably conspicuous, human bodies come to experience their digitization in multiple ways.<sup>61</sup>

---

<sup>58</sup> Neff, Gina & Dawn Nafus. *Self-tracking*, Cambridge, US: MIT Press, 2016, 39.

<sup>59</sup> *Ibid.*

<sup>60</sup> Reynolds, Emily. “People are losing sleep over tracking sleep”, *The Week*, March 2017 <https://theweek.com/articles/686432/people-are-losing-sleep-over-tracking-sleep> accessed April 25, 2017.

<sup>61</sup> Although this thesis does not explicitly focus on the issues of gender, they have been important considering the contemporary body both in writing and artistic practice as demonstrated especially by gender studies. In many instances the divisions in this governing system can be seen as gendered divisions. See: Butler, Judith. *Bodies that Matter: on the Discursive Limits of Sex*, London: Routledge, 2014.

In the traditional Cartesian understanding, mind and body are often considered separate entities, where the mind should be able to exercise control over the body. But more recently, the phenomenological approach refuses such separation, as we engage the world through our bodies. Maurice Merleau-Ponty suggests that we do not only have bodies, but we are our bodies, we are the experiences.<sup>62</sup> For Merleau-Ponty embodiment involves action that stems from the self, as the body is constitutive of being-in-the-world that enables a certain kind of corporeality. In such understanding the practices of the self can also be considered as embodied practices and body should not be considered as a reduced category under the control of the mind.

Here again it is important to return to Michel Foucault, for he highlighted how the human body becomes an important site for the structures of power, as the notion of biopower takes two main forms. Foucault observed how biopower functions as the disciplining aspect of the human body, through which the body enters the machinery of production.<sup>63</sup> This body is industrious and economically efficient and such form is present in school, military, and workplace. This is an attempt to create a more disciplined, effective population, as human bodies are a necessity to sustain the functioning of institutions governing over them.

In addition, Foucault also sees biopower in the form of regulating the population, where it focuses on the reproductive capabilities of the human body. In this case sex becomes part of the politics through surveillances and examinations. This form of biopower appears most clearly in demography and ideology, with the aim to control the population on a statistical level. In both of these forms, human body is an important element in politics, as the way bodies regulate themselves became an object of power and knowledge. In combination with law becoming less interested in punishing and more interested in adjusting the conditions of life, the biopower became less visible. So the new form of power meant that human life fell under the control of more subtle politics.

---

<sup>62</sup> Merleau-Ponty, Maurice. *Phenomenology of Perception*, London: Routledge, 2012, 139.

<sup>63</sup> Foucault, Michel. *History of Sexuality: An Introduction*. Trans. Hurley, Robert. Random House Inc., New York, 1978.

This biopower that is subtler than disciplinary power gets exerted through biopolitics, which focuses on human bodies. Biometric data collection, which refers to the quantification of the various features of the human body, is one occasion where biopolitics is enacted. For example, it serves as a tool of inclusion and exclusion on borders through the use of biometrics passports and retina scans. Self-tracking practices can be seen as a form of biometric data collection. Both the body as the thing and the data that represents it become markers of identity through the collection of fleshly sensations and perceptions and turning them into digital numbers.<sup>64</sup> So here the body is dealing with digital technologies both in the way the power is enacted over them, but also in the way it is taking care of itself.

But this coming together of bodies and technology can also be viewed from the perspective of formulating new types of cyborg beings that embody the in-betweenness of the two. This type of bodies can be seen as posthumanist or transhumanist subjects, in which case the human body in its mere biological form could be considered both obsolete and impossible to separate from the surrounding technologies. The notion of posthuman has been developed in conjunction with critical theory that has sought to remove human experience from the privileged position considering the experiences of other species and entities. Yet in most cases the main difference between posthuman and transhuman is that the former is looking critically at the notion of future where technologies and human bodies are forming one entity and the latter is more celebratory in the face of advancing biotechnologies, yet still accepting that the era of human exceptionalism is over and humans are part of a system that is integrated into a larger system.<sup>65</sup> Both Donna Haraway and Rosi Braidotti are considering the posthuman and cyborg subject as somebody who is enmeshed with technology. In both Braidotti's and Haraway's development of these ideas there is the distinction of the posthuman as somebody, who is also informed by the ecological and gender issues that have

---

<sup>64</sup> Lupton, Deborah. *The Quantified Self: a Sociology of Self-tracking*. Cambridge, UK: Polity, 2016, 54.

<sup>65</sup> LaGrandeur, Kevin. "What is the Difference between Posthumanism and Transhumanism". *Ethical Technology*, July 2014.

Wolfe, Cary. *What is Posthumanism?* Minnesota: University of Minnesota Press, 2009, xii.

shaped the understanding and emancipation of the body and sexuality in the second part of twentieth century.<sup>66</sup> Both the notions of biopolitics and surveillance reveal an important aspect in regards to posthuman subject, as the technology that shapes it, can be seen to act independently of its user. As the recent interest around the ideas of posthuman has shown, art can be both revealing and speculative when considering the possibilities for interspecies relations.

Considering all these developments, one could argue that within the framework of Western neoliberal democracies the body has reached a level of independence from involuntary physical hardship and corporal punishment. It can also be argued that human bodies have on one hand attained previously unknown liberties and wellbeing both through the use of technology and changing politics, but on the other hand have lost some of that independence to technologies that are shaping everyday experiences of these bodies. If formal freedom demarcates the freedom of choice within the coordinates of the existing power relations, and actual freedom designates the site of an intervention that undermines these very coordinates, an important question must be asked about where to place these practices between the body and technologies.<sup>67</sup> These new technologies of self-tracking and concurrent modes of production, which they facilitate, raise questions about wider cultural phenomena concerning formal and actual freedoms in the presence of datafication of everyday lives. How much must one quantify to really know oneself?

It is thus fitting that with the redesign of the state (something that will be in considered in the next chapter) for the bodies within that state also to become more transient within this context of formal freedoms. In such a situation the idealized body has become a consumer commodity, free to roam within these constraints of formal freedoms and offered a variety of prepackaged selves, as described by Zygmunt Bauman previously in this chapter. Subsequently, the responsibility to take care of the body, as an exercise of self-practice, remains firmly with the individual.

---

<sup>66</sup> Braidotti, Rosi. *The Posthuman*. Cambridge: Polity Press, 2013.

Haraway, Donna. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century", *Socialist Review*, Vol. 80, 1985, 65-107.

<sup>67</sup> Žižek, Slavoj. *On Belief*, London: Routledge, 2003, 122.



## Artistic Practices for Digital Bodies and Quantified Selves

Artists have explored the statistical and entrepreneurial aspects of human life both with irony and concern. On Kawara used postcards to quantify his personal data by monitoring and communicating on a daily basis the exact time that he got up from bed in the project *I GOT UP*. Each day from 1968 to 1979, he sent out two postcards to two different addressees, on which he had marked the exact time of getting up by writing: "I GOT UP AT ..." on the postcard. For On Kawara the act can be seen to bear a more existential meaning than just the mere collection of time stamps. It is the statement confirming his existence that becomes important as his work focused on the "quantification of an aspect of his self as a statement confirming his existence." This can be seen to "demonstrate in an ironic way that numerical identities do not constitute specific personal identities," something that the current interest in quantification seems to disagree with.<sup>68</sup>

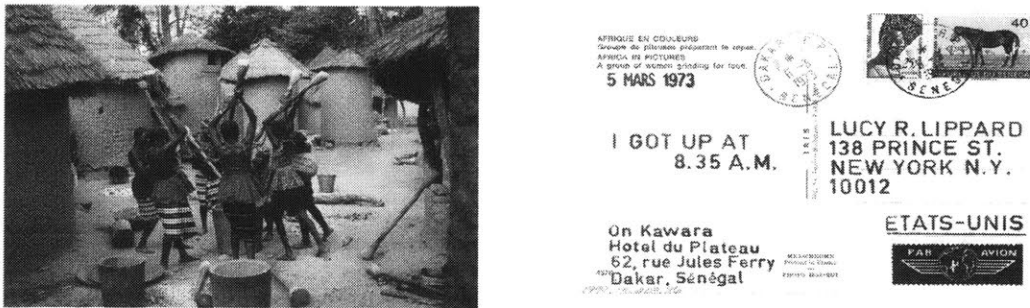


Fig. 1 - On Kawara 5 MARS 1973

From *I Got Up*, 1968–79

Stamped ink on postcard, 4 × 5 inches (10.2 × 12.7 cm)

New Mexico Museum of Art, Santa Fe, New Mexico, Gift of Lucy R. Lippard, 1999

© On Kawara. Photo: Courtesy Michèle Didier

<sup>68</sup> Abend, Pablo & Mathias Fuchs. "The Quantified Self and Statistical Bodies: Introduction", *Digital Culture & Society* Vol. 2:1, 2016, 8.

Deborah Lupton has described how the metaphor of the body as a machine has been used in different variations for a long period of time.<sup>69</sup> During Industrial Revolution the human body was seen as an engine, but with the rise of computer technologies the body is represented as part of digital information system. These allegories that advocate the ideal of a digitally quantified and fit body create a certain kind of techno-utopia, where the body is enduring through numbers. In this image the faultless body becomes storable data and the division between the physical body and the digital representation of it is removed. This utopian vision suggests that through the use of technology and numbers it is somehow possible to overcome the uncertainties and unknowns of the human body. It is here that the numerical determinism really manifests itself.

Taking into consideration all these possibilities, artists have offered different understandings of what it means to sculpt, alter, augment, and identify with a body. In 1992 Jeffrey Deitch curated a group exhibition "Post Human", which explored how emergent technologies at that time were changing the understanding of human condition.<sup>70</sup> Deitch explains in the "Post Human" exhibition catalogue how artists such as Matthew Barney, Jeff Koons, Christian Marclay, Charles Ray and Cindy Sherman among others were able to bring attention to the changing nature of what it means to be human with the emergence of technological interferences such as plastic surgery, artificial intelligence and internet. In Deitch's words artists were able to see these technological developments often before they actually happened and the exhibition was a case of artists anticipating the biological century that was yet to come.

In recent years artists like Ed Atkins and Ryan Trecartin among others have explored the digitalization of the body through digital filmic medium as an example of augmenting and externalizing the physical state of human bodies in this world. They are doing this not by offering an alternative reality to the already existing physical world, but by adding, distorting and rendering to

---

<sup>69</sup> Lupton, Deborah. *Medicine as Culture: Illness, Disease and the Body*, 3rd edn. London: Sage, 2012.

<sup>70</sup> Deitch, Jeffrey. "Exhibition Histories: Post Human". *Spike Art Quarterly*, No 47, 2016.

Deitch, Jeffrey. *Post Human Exhibit Catalogue Essay*, 1992.  
<http://www.artic.edu/~pcarroll/PostHuman.html> accessed April 25, 2017.

the layers that are already apparent. This practice can propose an understanding of the human body that takes into consideration the digital aspects of everyday life and the fluid movement of identity that the digital world offers. Atkins has used performance capture to animate characters in his videos *Ribbons*, *Hisser* and *Safe Conduct* and he has explained this choice as a possible means to give life to a character that has all the human characteristics, but is nevertheless designed within a virtual world.<sup>71</sup> Trecartin has explored the fluidity of the gender and how the virtual space offers understandings and possibilities to express different identities that complement the physical world with his video works like *Centre Jenny*.<sup>72</sup>

There are also artists who have considered the human body to be a material that is comparable to other physical matter that can be manipulated. Australian artist Stelarc and Canadian artist and bodybuilder Heather Cassils have both stated that they see the human body as something that can be sculpted, exposing both the limits and flexibility of the human body as a material.<sup>73</sup> In making their own physical existence an artistic practice, they show how human body is not fixed neither to given biological state nor to a given gender. Stelarc has used his own body both to expose the inside and outside limits of what it means to be human physically through sculpting with technology. Heather Cassils on the other hand is using bodybuilding methods “for rigorous engagement with the body as a social sculpture.”

---

<sup>71</sup> Atkins, Ed. *Interview for the Stedelijk Museum*, 2015 <https://www.youtube.com/watch?v=3XVJ1p-ZOTc> accessed April 25, 2017.

<sup>72</sup> Langley, Patrick. “Ryan Trecartin: The Real Internet is Inside You”, *The White Review*, April 2012.

<sup>73</sup> Harrasser, Karin. “Interview with Stelarc”. *Spike Art Quarterly* No 47, 2016.

Cassils, Heather. <http://heathercassils.com/about-2/> accessed April 25, 2017.

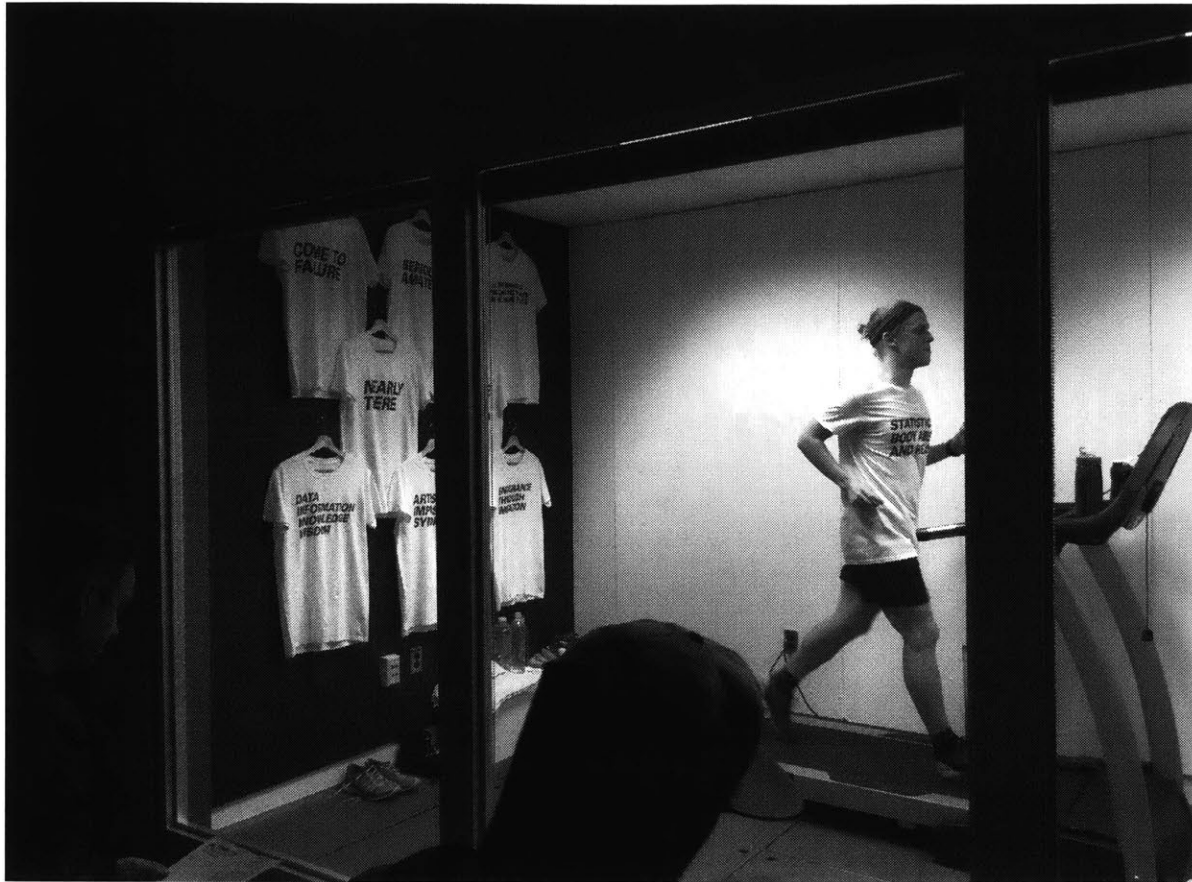


Fig. 2 & 3 – *Surplus; Numbers are Ruining Me*, digital documentation of the performance, 2016.



Fig. 4 - *Surplus; Numbers are Ruining Me*, documentation of the performance, 2016



Fig. 5 - *Surplus; Numbers are Ruining Me*, documentation of the performance, 2016.

### All the Running You Can Do to Keep in the Same Place

These previously described elements of practicing selfhood are captured well in a segment of Lewis Carroll's fantasy book *Through the Looking Glass and What Alice Found There*, when Alice discovers herself running together with the red queen:

Just at this moment, somehow or other, they began to run. Alice never could quite make out, in thinking it over afterwards, how it was that they began: all she remembers is, that they were running hand in hand, and the Queen went so fast that it was all she could do to keep up with her: and still the Queen kept crying 'Faster! Faster!' but Alice felt she could not go faster, though she had no breath left to say so. Alice looked around her in great surprise. 'Why, I do believe we've been under this tree the whole time! Everything's just as it was!' 'Of course it is,' said the Queen, 'what would you have it?' 'Well, in our country,' said Alice, still panting a little, 'you'd generally get to somewhere else—if you ran very fast for a long time, as we've been doing.' 'A slow sort of country!' said the Queen. 'Now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!'<sup>74</sup>

<sup>74</sup> Carroll, Lewis. *Through the Looking Glass and What Alice Found There* New York: Barnes & Noble, 2015, 31.

This section from a famous children's book serves as a perfect epitome for the incessant update culture. It was also a metaphorical beginning of my recent performance that centered on these self-tracking practices. *Surplus; Numbers Are Ruining Me* was an endurance performance that looked at the fragility of human body while fulfilling the desire to collect, store and analyze data from my body on the way towards an imagined finish line during the MIT Program in Art, Culture and Technology (ACT) studio finals in December 2016. The performance took place on a treadmill over the course of more than 8 hours, where I, as the performer ran, while also keeping track of various data that my body discharged. The performance was divided into 9 different parts, all of which offered a different way to perform the twisted self-motivational t-shirts that carried messages such as: come to failure, artist imposter syndrome, nearly there, and so forth. This performance was limited to a time frame that started and ended with the ACT studio finals, hence making the running treadmill a humming backdrop for all the presentations that day.<sup>75</sup> During the performance I was tracking my heart rate, time spent on a treadmill, steps taken, and distance covered, while being in a lab-like display box for others to observe, through class windows.

The central concern for the performance was the imagined moment, where self-fulfillment through numbers becomes self-indulgence, as me being on a treadmill was at least as much about failure as it was about achievements. Looking at the notion of failure, experimental novelist Kathy Acker wrote after taking up heavy exercising:

Bodybuilding can be seen to be nothing but failure. As soon as I can accomplish a certain task, so much weight for so many reps during a certain time span, I must always increase one aspect of this equation, weights reps or intensity, so that I can again come to failure. // Intensity times movement of maximum weight equals muscular destruction. Is the equation between destruction and growth also a formula for art?<sup>76</sup>

---

<sup>75</sup> Although the notion of endurance performance is not explored in great detail in this thesis, it is certainly important considering both the art historical and current context of body cultures. Endurance performance marks the body both in a gendered and laborous way and it gives rise to a time based art that is body centric. See:

Schneider, Rebecca. *The Explicit Body in Performance*. London: Routledge, 2010.

<sup>76</sup> Acker, Kathy. "Against Ordinary Language: The Language of the Body." *Bodies of Work*, London and NY: Serpent's Tail, 1997. 145-146.

In a similar manner, it was obvious for me that at one point or another, my body will fail in its quest to run for this idealized form and statistical numbers. Nevertheless, it was my take to offer a foray into the system of non-objects that has an increasing stake in having control over biological bodies and at the same time put myself to limits within the context of MIT. It is clear that the work and study culture at MIT is at least reasonably demanding; yet the Institute is also promoting a lifestyle of wellness, creating thus a paradoxical set of demands and recommendations. On the one hand there is almost a spiritual quest for staying well and on the other there is a drive for a greater efficacy through data, numbers, and behavioral team studies. Maybe by performing on a treadmill I accomplish both?

While almost everybody is a statistical person, modern exercise can be seen as an example how these statistics of self-tracking bring ideas of efficiency to a very intimate level, so all of a sudden being an amateur becomes a serious job. Cultural critic Mark Greif takes note in his essay *Against Exercise* how the entrepreneurial lifestyle has entered the personal level of everyday life through exercise:

Modern Exercise makes you acknowledge the machine operating inside yourself. Nothing can make you believe we harbor nostalgia for factory work but a modern gym. The lever of the die press no longer commands us at work. But with the gym we import vestiges of the leftover equipment of industry into our leisure. We leave the office, and put the conveyor belt under our feet, and run as if chased by devils. We willingly submit our legs to the mangle, and put our stiffening arms to the press.<sup>77</sup>

For Greif it is crucial that the machines are simple, while the only truly essential pieces of equipment in modern exercise are numbers: "Whether at the gym or on the running path, rudimentary calculation is the fundamental technology. As the weights that one lifts are counted, so are distances run, time exercised, heart rates elevated."<sup>78</sup> Somehow these numbers that my body produced during the performance also became a narrative for the day, while my colleagues were showing their work, I presented my body and numbers on a treadmill and blackboard, maybe

---

<sup>77</sup> Greif, Mark. *Against Everything: Essays, 2004-2015*. New York: Pantheon Books, 2016, 18.

<sup>78</sup> *Ibid.*, 24.



meaningless without each other, but a framing beat given the context of the finals. Greif again reminds how the inherent logic of exercise is geared towards future: "Exercise does make you, as a statistical person, part of different aggregate categories that die with less frequency at successive ages. It furnishes a gain in odds. This is the main public rationale for those billions of man- and woman-hours in the gym."<sup>79</sup> So running is almost the most basic risk calculation.

Consequently, the statistical exercise becomes a form of productive leisure that, although serving as symbol of being in good health and taking care of oneself, makes the individual part of the new class of overtly productive human beings who take pride in their way of working or what has been also called conspicuous production.<sup>80</sup> It is all about how hard you work both in the office and in this case on a treadmill. It is here where your position within a hierarchical order of self-care pedestal gets to be shown. If anthropology has explored how labor is marked on the body of the laborer, then this new group is recognizable by exercise that is inscribed on their body as work.<sup>81</sup>

During the performance I was facing questions of competition with myself, time, and my peers who were presenting their studio project at that same time. Will my failure amount to not being an able runner or competent artist? South African writer J. M. Coetzee has looked at the competitive human condition as following: "The runner's sole goal is to get to the front and stay there. The question why life must be likened to a race, or why national economies must race against one another rather than going for a comradely jog together, for the sake of the health, is not raised. A race, a contest: that is the way things are." But for Coetzee the competitiveness of humans is elective as he continues: "If we want competition we can choose competition, alternatively we can take the path of comradely collaboration".<sup>82</sup>

---

<sup>79</sup> *Ibid.*

<sup>80</sup> Tarnoff, Ben. "The New Status Symbol", *The Guardian*, April, 2017. <https://www.theguardian.com/technology/2017/apr/24/new-status-symbol-hard-work-spending-ceos> accessed April 25, 2017.

<sup>81</sup> Schildkrout, Enid. "Inscribing the Body." *Annual Review of Anthropology* 33, no. 1 (2004): 319-44.

<sup>82</sup> Coetzee, J. M. *Diary of a Bad Year*. London: Vintage, 2008, 79-81.

Both individual and commercial interest in collection of data or what the historian Frances Stonor Saunders describes as the Enlightenment spirit of tracking, listing and measuring that is one of the driving forces of our times, has certainly allowed novel ways of solving questions and problems related to health and safety and all these notions should not be considered automatically as threats to human liberties.<sup>83</sup> Yet, as Saunders sternly warns, one must not mistake information for knowledge and knowledge for wisdom. As demonstrated in this chapter, the rationale for such self-practices comes to serve a very certain mode of governing over human bodies that are inscribed by technology. How much must one quantify to really know oneself in such a system? And eventually, is this a form of collaboration or competition with the self?

### **Serious Amateur and Artist Imposter**

Commodification of the self-practices gives the contemporary individuals the freedom to use their bodies the way they see fit. Whether it is running long distances on a treadmill, dancing for hours, or altering the state of mind through drugs, it all comes down to a choice or even more precisely it comes down to surplus. In the words of Roberto Calasso, humans have a surplus of energy, which has to be disposed of and that surplus is simply life. "Whatever one does with that surplus that decides the shape of a culture, of a life, of a mind."<sup>84</sup>

Former investment banker and amateur sportsman Tõnu Pekk argues that even as amateurs while wearing the trackers and sports gear, we work for the sportswear companies trying to max our achievements.<sup>85</sup> Using the surplus is a serious job, competing with yourself, everybody else and most importantly with the gear and technology you wear. For Pekk, it is a subconscious contract needing to live up to the high level of this equipment and maybe it is not so much about what the

---

<sup>83</sup> Stonor Saunders, Frances. "Where on Earth Are You?" *London Review of Books*, 2016  
<http://www.lrb.co.uk/v38/n05/frances-stonorsaunders/where-on-earth-are-you> accessed April 25, 2017.

<sup>84</sup> Calasso, Roberto. "The Art of Fiction No. 217", *The Paris Review*, 2012.

<sup>85</sup> Pekk, Tõnu. "No Blueberry Soup for Men in Briko", 2015,  
<https://www.youtube.com/watch?v=HtJ24Eprwpo&> accessed April 25, 2017.

equipment can do for you, but rather what can you do for the equipment. So the finish line remains imaginary, but all the numbers marked down on the board offer some repose from the obvious physical hardships that the body goes through while performing on the treadmill for example.

Here the true competition is with numbers as I perform the artist imposter syndrome, where I embody momentarily some of the questions and doubts of the world around me. Art is often about entering the unknown with a certitude that can be seen from the outside as imposter-like opportunism. So it becomes a twisted continuation of social psychologist Amy Cuddy's argument, which tells us to fake it till you become it, not fake it till you make it.<sup>86</sup> Or maybe in this case: track it till you become the efficient twenty-first century individual, track it till you know enough, track it till you can determine through numbers and trust yourself.

So what can art do in this moment of numerical determinism of the liquid user who is yet to become and who has to fight for its identity, sense of self, and liberties? Art can exacerbate like shown by this performance or in a more subtle way by the example of On Kawara that was mentioned before. This exacerbation can reveal both a moment of lightness and a moment of madness by breaking open the small cracks for the liquid user to break out from the everyday flows. If evil has become liquid by taking the shape of fluid proclivities and habits as Zygmunt Bauman and Leonidas Donskis suggest, then art and artists must become liquid as well to oppose that evil, with the ability to enter the various cracks that this liquid state of the world leaves open.<sup>87</sup> Self-tracking as a practice of selfhood could also become a critique of the high achieving individual through building a community for non-exceptional liquid users, without the claims for efficiency and speed. In the next chapter this same liquid user will have to navigate the pours of the contemporary state.

---

<sup>86</sup> Hochmann, David. "Amy Cuddy Takes a Stand", New York Times, September, 2014. <https://www.nytimes.com/2014/09/21/fashion/amy-cuddy-takes-a-stand-TED-talk.html> accessed April 25, 2017.

<sup>87</sup> Bauman, Zygmunt and Leonidas Donskis. *Liquid Evil: Living with TINA*. Malden, MA: Polity, 2016, 19.



Fig. 6 - *Surplus; Numbers are Ruining Me*, documentation of the performance, 2016.

## Chapter 2:

# E-residency Beyond Borders: Liquid User Enters a Changing State

The internet began as a place too complicated for nation-states to understand; it ended up, in the second decade of the twenty first century, as a place only nation-states seem to understand.<sup>88</sup>

Metahaven

This chapter will step away from the individual for a moment and will focus on the internet culture specifically in Estonian context by examining how the dialectical changes considering internet and its use have taken place in tandem with the development of the neoliberal self practices that were discussed in the previous chapter. It is not only on the individual level that the optimization towards a more economically efficient and market friendly social organization can be observed. Whether willfully or by their inherent survivalist nature, Westphalian states participate in redesigning themselves and their political subjects dependent on the technological changes that the networked

---

<sup>88</sup> Metahaven. "Captives of the Cloud, Part III: All Tomorrow's Clouds", *e-flux journal*, New York, 2013.

digital platforms bring along.<sup>89</sup> Branding of states has become one of the examples how states are adopting the language of corporate entities and how the simple distinction between the economy and the state becomes more complicated. If in chapter 1 it was demonstrated how the self behaves like a corporation, then here it is possible to observe the same happening to a state.

The model of Westphalian sovereignty, which has been the system to designate the relations between states since the seventeenth century, has been under challenge for quite some time, as traditional nation states have to deal with a more interconnected world. Adaptability is necessary to survive and move forward from this era, but when it happens on a level where states take over the functions of corporations and vice-a-versa, new questions about sovereignty and the way these entities are designed come to surface.<sup>90</sup> This means adapting to new structural changes of how power is exercised, both for the geopolitical design and for the nations within these systems.

Sociologist Benedict Anderson has described how the nation is an inherently imagined community:

A nation is an imagined political community, it is imagined because the members of even the smallest nation will never know most of their fellow-members, meet them, or even hear of them, yet in the minds of each lives the same image of their communion. Members of the community hold probably will never know each of the other members face to face. However, they may have similar interests or identity as part of the same nation. Members hold in their minds a mental image of their affinity: for example the nationhood felt with other members of your nation when your "imagined community" participates in a larger event such as the Olympic Games.<sup>91</sup>

Thus the traditional Westphalian nation state can be seen as a design structure that by no means will have to remain the same. It remains to be seen, whether the prevalent design will change to a more ambiguous entities that function on multiple layers at the same time and whether the borders of platform imperialism will be drawn more in the mold that resembles something like a neo-

---

<sup>89</sup> Benjamin Bratton offers a description of the Westphalian State as following: "The political model of sovereignty defined by the horizontal projection and loop topology of the modern nation-state political geography. " Westphalian " refers to the 1648 Treaty of Westphalia, symbolizing the formal consolidation of this sovereign geographic model. The model provided the modern unit of state sovereignty as interior to that geographic loop, and a geopolitics that would variously identify a balance of conflict between these units and a federalization of them into a particular form of cosmopolitanism. The nomos of the Cloud is characterized partially by a "delamination" of practical sovereignty from this grounding.

Bratton, Benjamin H. *The Stack: On Software and Sovereignty*. Cambridge, MA: MIT Press, 2016, 376.

<sup>90</sup> MacKenzie, Deborah. "End of Nations: Is there an alternative to countries", *New Scientist*, 2014.

<sup>91</sup> Anderson, Benedict R. O'G. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso, 1991, 6-7.

medievalism, but it is already possible to discern how sovereignty is becoming more divided and loyalty of users is distributed between different governing institutions. Especially small states have to present themselves in this global arena as somehow desirable, whether it is to draw investments from outside or to be an attractive for a potential tourist or skilled worker.

Here the example of Estonia serves well, as the rapid transition that took the former Soviet state with a failing infrastructure to a technologically connected country of today highlights how the use of certain measures can change both the capabilities and the image of a state in a very little time. While Estonia has had a lot to celebrate considering the implementation of internet technologies, the tools provided by the state have slowly transformed and with these changes the idea of internet as a tool for inclusion has changed more towards economic interests that promote internet as a tool for greater efficiency. Gradually, the idea of having an internet that is supposed to serve primarily as an instrument for the development of democratic practices and inclusion, is changing into a discourse that sees it mainly as an economic instrument in full service of efficiency and speed.<sup>92</sup>

In many ways the contemporary state is competing for the attention of the individual together with post-national entities of infrastructure. The transition from e-democracy (radical inclusion) to e-consumerism (efficient use of services) as a driving mechanism in this case has been a traceable phenomena, as has been presented by historian Aro Velmet.<sup>93</sup> This serves also as a backdrop and an additional layer for the rise entrepreneurial self that was considered in chapter 1, as the ideals and norms that such a state promotes support the self-driven entrepreneur who accepts that the ethical practice of taking care of oneself rests with the individual with all its risks and constraints thus minimizing of what is expected from the state and also limiting the expectations for a discussion that would actively try to shape that state. Former Estonian Prime Minister Taavi Rõivas suggested in

---

<sup>92</sup> Although the case presented here serves only as an example of a more commercially driven internet, these developments add to a history that explains how the internet became a producer of financially valuable commodity that is data. And all these commercial developments have certainly been useful considering how fast the adaptation curve has been. See:

Greenstein, Shane. *How the Internet Became Commercial*, Princeton: Princeton University Press, 2017.

<sup>93</sup> Velmet, Aro. "E-kodanikud ja E-tarbivad", *Vikerkaar* 10-11, 2015

2015 that Estonia had reached an era of micro tuning, which comes to characterize this idea that democracy is a ready-made product and politicians merely as administrators who govern over the inevitable.<sup>94</sup> This form of democracy offers almost no alternative to the technical tuning that is dependent on numbers and the bottom line. Politics here becomes a managerial choice, facilitating the existence of a very certain kind of entrepreneurial subjects.

*State of Cloud*, the work that is considered in this chapter, focuses exactly on the image of the benevolent system administrator who with his ponytail that is tied with an ID-card reader becomes a symbol of these changing technologies and the expert running a country in front of computer screens.



Fig. 7 - *State of Cloud* by SKATKA (Mikk Madisson & Rainar Aasrand), print, 2014.

---

<sup>94</sup> Raba, Rannar. "Interview with Taavi Rõivas", *Sakala*, December, 2015. <http://sakala.postimees.ee/3435949/peaminister-eesti-on-joudnud-peenhaalestuse-ajajarku> accessed April 25, 2017.



## Background: the Turn to E-democracy

The transformation towards information-society in Estonia started in the 1990s after the fall of Soviet Union. As the infrastructure inherited from the late Soviet communism meant that the country was lagging behind the more prosperous neighbors in Scandinavia, quick decisions were necessary to move the impoverished country out of the economic misery inherited from late communism. The legislative infrastructure of the country was rebuilt almost from scratch, which also meant that introducing and implementing new measures and systems of governing was made easier. This change happened both in public sector and the freshly formed private sector. Laissez-faire economics became the backbone of the 1990s Estonia, as Mart Laar, who was the first prime minister of newly independent Estonia claimed that the only book about economics he had read at the time of assuming office was Milton Friedman's *Free to Choose*.<sup>95</sup> This dramatic change in economics also helped to reform the public sector. Although the reforms were seen as harsh at the time, these decisions helped to shape the idea of a country that was adaptable and ready to commit to a change when necessary.

Internet technologies became part of that change early on, as in 1991 the first state email addresses were created. This continued with the creation of government ftp servers and webpages for different ministries and eventually culminated with the creation of general government access site riik.ee.<sup>96</sup> The creation of the portal now destined that all departments of government were accessible online.

Since the year 2000 all government cabinet meetings became paperless, which was part of the wider push for a more efficient and streamlined government.<sup>97</sup> This meant that through previous online discussions taking place before the physical cabinet meetings the time for these meetings was reduced to between ten minutes and one hour from what was before between four to twelve

---

<sup>95</sup> Farivar, Cyrus. *The Internet of Elsewhere*, Rutgers University Press, 2011, 120.

<sup>96</sup> Velmet, Aro. "E-kodanikud ja E-tarbijad", Vikerkaar 10-11, 2015

<sup>97</sup> Farivar, Cyrus. *The Internet of Elsewhere*, 127.

hours.<sup>98</sup> This element of economic efficiency and progressive governance has often been introduced to foreign visitors as a symbol of e-state. Instead of cabinet meetings where there would be stacks of papers, the ministers and visitors were greeted with computer and tablet screens as a symbol of a state that is continuously looking towards the future.<sup>99</sup>

The other and more important side of advancing internet technologies through public and legislative actions in Estonia involved strategic measures to include the larger public to the use of internet. In late 1996 Tiger Leap Foundation was created as a public-private partnership between the Estonian government and various NGOs with the aim of making computer literacy part of basic education in all Estonian schools. This was paralleled by building a series of public internet access points in various areas around the country.<sup>100</sup> The access to internet at these points was free of charge, which was a significant development at that time, as the price of buying a personal computer that was readily connected to internet was still in most cases too high for a large number of the population. The president of Estonia Lennart Meri said after the public opening of the first internet access point:

On the Internet, every Estonian's thoughts and words will matter exactly as much as their worth – they will matter equally with the thoughts and words of Americans, Russians, Germans, and Japanese. So be quick to step onto this bridge that has united continents as neighbors and that will take us all, especially the young, right into the next century. Those who walk faster will reach next century sooner.<sup>101</sup>

This statement reflected the larger optimism of internet as a tool for inclusion to the imagined borderless world. The Tiger Leap project was brought to the public as a tool to further develop democracy and to include people who would otherwise be left out from these technological developments. This process was continued with the creation of *Täna Otsustan Mina* or *TOM (Today I Decide)* portal, where citizens could comment on the legislative process and start new bills.

Although rather popular at the launch, the *TOM* program was discontinued because of the falling

---

<sup>98</sup> Wired, "Online Biz Is Booming in Estonia", <http://archive.wired.com/culture/lifestyle/news/2003/04/58561?currentPage=all> accessed April 25, 2017.

<sup>99</sup> Mueller, Andrew. "Life on the Edge", *Monocle*, 78, 2014.

<sup>100</sup> Farivar, Cyrus. *The Internet of Elsewhere*, , 2011, 123.

<sup>101</sup> *Ibid.*, 123.

number of usage and lack of meaningful discussion and suggestions for legislature. In this case the anonymity of the proposals worked against the platform as the site was also used for trolling, which meant that meaningful proposals often got lost among less meaningful ideas and the portal quickly lost its original purpose and importance. This could be considered as a first setback to the ideas of radical inclusion using internet as a platform in advancing democratic practices.

From the mid 1990s the idea of implementing Estonian electronic identity card system was gaining traction and by 2000 two laws were passed which established that identity documents in the form of an ID card would be compulsory for every Estonian and every resident alien, and that each ID should contain a unique set of electronic certificates that would allow the ID card to be used as a digital signature.<sup>102</sup> ID card was released in 2002 and from 2003 onwards, after a ruling in The Tallinn Administrative District Court, all digitally signed documents were legally considered as equivalent to hand-signed documents.<sup>103</sup> From that moment, the digital signing of documents became a common practice and it was not only the government that was paperless and used online tools for its practices, but also the larger society that had state certified digital identification with them in the form of an ID card. These digital identities operate as identification for citizens to enjoy various state services online.

This all paved the way for the Estonian elections to move to the internet. In 2005 people could elect local governments in internet and in 2007 it was for the first time possible to elect the parliament through e-elections. Although online voting is used in other countries, the voters in these situations have to use the computers at the polling station to cast their e-vote. In Estonia the ability to vote at home was once again served as an advancement of democracy in the hope of increasing voting

---

<sup>102</sup> *Ibid.*, 128.

<sup>103</sup> See the Estonian ID Card Certification Centre introduction: [https://www.forumstandaardisatie.nl/fileadmin/os/presentaties/Tall07\\_pres\\_Aarma.pdf](https://www.forumstandaardisatie.nl/fileadmin/os/presentaties/Tall07_pres_Aarma.pdf) accessed April 25, 2017.

activity. In reality the levels of voting activity did not rise significantly.<sup>104</sup> And it has been further questioned if this implementation of new technology has resulted in greater levels of participatory citizenship, democratic accountability, and social justice or in contrast whether this onslaught of new technology has worked as a tool in enforcing entrenched structures of political, economic, and ideological power on society.<sup>105</sup> It can be argued that it was the progressive political parties favored by younger and tech-savvy people who gained more from the creation of e-elections. But altogether these state enacted legislative developments served as a backdrop for creating the image of Estonia as a country that is at the forefront of implementing progressive digital technologies.

This image of a technologically capable country was further enhanced by two factors. First of them was the active private sector in the usage of internet technologies. As an example, ID card was also used as a two-way authentication device for internet banking, increasing its profile as a secure tool. As a result Estonia became one of the first countries to implement an online banking system, as once again the lack of previous systems worked in favor of the new information technologies.<sup>106</sup> In contrast some older technologies like checkbooks were never introduced, which made the transition faster and more efficient. In addition, the development of Skype was also used as a symbol of an advanced Estonian IT-sector and thus the image of a digital state was further enhanced. Even if in reality two Scandinavian entrepreneurs established the company and it has never had its headquarters in the country, Skype has been often associated with Estonia.

The second element that helped to grow the profile of Estonia as a successful e-state was the effective fight against the 2007 cyber-attacks that took place after the riots caused by the removal of a Soviet-era statue in Tallinn. These attacks were thought to have come as a direct retaliation by the

---

<sup>104</sup> The statistics of e-voting in Estonia, <http://www.vvk.ee/voting-methods-in-estonia/eng/index/statistics> accessed April 25, 2017.

<sup>105</sup> Charles, Alec. "New Media, New Europe: Estonia's E-mediated State", in *Media in the Enlarged Europe: Politics, Policy and Industry*, University of Chicago Press, 2009, 217.

<sup>106</sup> *Ibid.*, 213.

Russian state for the removal of that symbolic bronze sculpture.<sup>107</sup> Although the origin and true scale of the attacks have been contested, they served as an ideal reason to address cyber-security on the level of NATO defense ministers and once again Estonia found itself at the forefront concerning the questions of cyber world. Soon after the attacks the NATO Cooperative Cyber Defense Centre of Excellence was established in Tallinn.<sup>108</sup> Since then Estonia has taken on a more central role in NATO and European Union as an experienced participant in the forming of high-level IT security and cyber-defense.<sup>109</sup>

All these aforementioned elements serve as a historical backdrop in creating an outside image of a connected and technologically capable country. But the most relevant in this case is the larger thinking on the official level of using internet as a tool for implementing newly found democracy. Internet was at first considered as the radical possibility of bringing inclusion and democratic practices to each and every subject of the state, but seen together with the rise of the networked individual, the internet both for Estonians and foreigners alike gradually became a tool for exercising entrepreneurial practices through the creation of these new tools as will be shown further on this thesis.

### **Soft Power and Small States**

Although the modern economy and the state are considered separate bodies, they form a “dialectical unity in diversity”, which means that they are interdependent.<sup>110</sup> The important question here is, how broad the concept of the state is and where the boundaries of the state are drawn. These boundaries then become relevant as they distinguish what are the functions that the state takes upon itself and what is the state striving for. Modern theorists find that the simple distinction is

---

<sup>107</sup> Traynor, Ian. “Russia Accused of Unleashing Cyberwar to Disable Estonia,” *The Guardian*, May 2007, <http://www.theguardian.com/world/2007/may/17/topstories3.russia> accessed April 25, 2017.

<sup>108</sup> Anonymous. “War in the Fifth Domain,” *The Economist*, July 2010. <http://www.economist.com/node/16478792> accessed April 25, 2017.

<sup>109</sup> Farivar, Cyrus. *The Internet of Elsewhere*, 2011, 142.

<sup>110</sup> Trottier, Daniel and Christian Fuchs. *Social Media, Politics and The State*, Routledge, 2015, 17.

no longer sufficient and stress the need for a wider umbrella term of 'cultural political economy'.<sup>111</sup> Daniel Trottier and Christian Fuchs write commenting on the functions of the state: "It is precisely through the articulation of complex factions and oppositions that dominant interests are transposed from economic power into state power and in a dialectical reversal back from state power to economic power".<sup>112</sup> Power here can be considered as the ability to exert influence and control structural and procedural social elements or in other words to act. If the state is exercising its power differently, it also means that some state functions get to be absorbed by outside entities, something that will be considered in the next chapter.

Through building a strong image of a place or simply by branding the place, the attraction and the legitimacy of that place rises. Joseph Nye, who came up with the term "soft power" writes: "power today is less tangible and less coercive among the advanced democracies than it was in the past. At the same time, much of the world does not consist of advanced democracies and that limits the global transformation of power."<sup>113</sup> The single most important asset of soft power is its allegedly non-coercive nature, the capacity to reach desirable outcomes without involving force, threat, or payment, although this view would be in conflict with thinkers who consider state to be a larger apparatus in possession of military and economic powers and thus soft power would still function as a form of a structural coercion.<sup>114</sup>

Yet soft power has still become a term that is in wide use when considering ability to attract other subjects on the level of state. So soft power as opposed to hard power can be viewed as a tool that functions within the larger framework of exercising power by the state.

---

<sup>111</sup> Sum, Ngai-Ling and Bob Jessop. *Towards a Cultural Political Economy: Putting Culture in Its Place in Political Economy*. Cheltenham: Edward Elgar, 2013.

<sup>112</sup> Trottier, Daniel and Christian Fuchs. *Social Media, Politics and The State*, 2015, 21.

<sup>113</sup> Nye, Joseph S. Jr. *Soft Power: The Means to Success in World Politics*, New York: Public Affairs, 2004, 30.

<sup>114</sup> Metahaven. "Brand States: Postmodern Power, Democratic Pluralism, and Design", *e-flux journal*, New York, 2008.

Dutch graphic design and artist collective Metahaven have compared the soft power to network power in their similarity to exercise themselves through secondary measures.<sup>115</sup> In both of these cases states have acquired large amounts of social capital in the form of positive ties within networks of other states, non-governmental organizations, corporations, and other actors and are thus more likely to be seen as legitimate and authoritative. Since the early 2000s place branding of states has become more and more popular and this element of branding is part of a toolset used in soft power to attract legitimacy. But the problem that arises here is that branding works mostly as a visual practice dealing primarily with surface and this mode of governance can be seen as superficial and reductive. By branding states adopt and are driven into the language of corporate world that is driven by yearly fiscal numbers and quick turnaround. This is where the liquid user can find itself confused between the murky and fuzzy borders offered by these different layers that work on a planetary scale.

The element of self-branding has been more common among smaller states, as it serves almost as a diplomatic tool in helping to differentiate one small state from the other. Use of internet suffixes is a common tool in place branding. In branding itself as an online country, Estonia uses elements of online culture to add social capital to the larger image of the state.

But this place branding also works the other way around, as the elements of the physical state and geopolitical location get used in the online world. This is the case with Protonmail in Switzerland where the email provider brands itself as a 100 percent secure data haven by borrowing from the country's history of bank secrecy, customer protection laws, and larger status in the geopolitical space to sell this image of a digital security.<sup>116</sup> Similar situation applied to Sealand that aimed to make itself work as a safe haven for data in the middle of the sea far from states.<sup>117</sup> In all of these

---

<sup>115</sup> *Ibid.*

<sup>116</sup> Bettridge, Thom. "Interview with Daniel van der Velden and Vinca Kruk", *032c Magazine*, 2015. <http://032c.com/2015/coup-de-net-metahavens-black-transparency> accessed April 25, 2017.

<sup>117</sup> Grimmelmann, James. "Death of a data haven: cypherpunks, WikiLeaks, and the world's smallest nation", *Ars Technica*, 2012, <http://arstechnica.com/tech-policy/2012/03/sealand-and-havenco/1/> accessed April 25, 2017.

cases internet gets to be used as a tool of soft power and geopolitical details get to be used in branding certain services in internet.

### **E-residency and 10 Million Digital Estonians**

In December 2014 as a further step in digital development, Estonia established the e-residency program with the ambitious plan of having 10 million e-residents by year 2025.<sup>118</sup> It is worth noting that Estonia has a population of around 1.3 million people.

In broad terms the e-residency program is a continuation of the Estonian ID card program, but this time looking outside the physical state borders for its user base. Many of the services available to the e-residents are services that Estonians use in their everyday life. The first iteration of the idea came up as a possible means to provide the people who still have significant ties to the country, but are living outside the geographical borders, same services that are available to Estonians and permanent residents. However with this new form of state supported digital residency, it is also the language that has changed significantly compared to the language of democratic participation that was presented in the early developments of the online cultures in Estonia. The e-residency program is described as “a transnational digital identity available to anyone in the world interested in administering a location-independent business online. E-Residency additionally enables secure and convenient digital services that facilitate credibility and trust online.”<sup>119</sup> E-residents can digitally sign contracts, securely encrypt and transcript documents, establish an Estonian company within a day, conduct e-banking from anywhere in the World, and declare Estonian taxes among other things.

---

<sup>118</sup> Sanderson, Sertan. “Digital Estonians, E-Residency as the way of Future”, *Deutsche Welle*, 2015, <http://www.dw.com/en/digital-estonians-e-residency-as-the-way-of-the-future/a-18634797> accessed April 25, 2017.

<sup>119</sup> e-Estonia, *What is e-Residency?* <https://e-estonia.com/e-residents/about/> accessed April 25, 2017.



While the e-residency program is still in a beta-mode the idea of a digital state that is working beyond physical borders has gained a lot of positive press from around the world.<sup>120</sup> Mostly it has been noted that this is a bold move from a small country that has a reputation for advanced digital technologies. These stories form a continuation from similar discussions that have focused around the envy of the digitized government and “digital nirvana” of Estonia.<sup>121</sup>

Altogether these stories serve as symbols of branding Estonia as a digital country and function as elements of soft power within the sphere of internet use. The former government CIO Taavi Kotka, who is also behind the idea of e-residency, came up with another plan of moving the whole data of Estonia to foreign cloud servers in order to make the possible invasion or a disruption of the data servers of the physical country less hurtful, as was the case with cyber-attacks of 2007. In reality it would mean that Estonian embassies around the world would have their own off-site servers that could host a backup of important government services and commercial cloud services would be used for less sensitive files like some of the public websites and the State Gazette that is used to publish changes in legislation.<sup>122</sup> This idea could again be considered as an example of using the progressive language of internet to promote the image of a digital country to a wider audience. With the use of soft power that is attained from the image of such branding, Estonian state can again expand its economic interests and reach. But the question to be asked here is, whether a country should aim towards a more corporate identity of being a service provider with a well-designed and recognizable logo.

---

<sup>120</sup> See: *Why you should be an e-resident of Estonia*, Wired - <http://www.wired.co.uk/magazine/archive/2015/07/features/estonia-e-resident/page/2>, 2017.; *Estonia to Offer “E-Residency” to Foreigners*, Wall Street Journal - <http://www.wsj.com/articles/estonia-to-offer-e-residency-to-foreigners-1413897698>; *The World Now Has Its First E-Resident*, The Atlantic - <http://www.theatlantic.com/international/archive/2014/12/the-world-has-its-first-e-resident/383277/> all accessed April 25, 2017.

<sup>121</sup> Chakravorti, Bhaksar, Christopher Tunnard, Ravi Shankar C. “The Way to Estonia: How to Reach Digital Nirvana,” *Foreign Affairs* <https://www.foreignaffairs.com/articles/global-commons/2015-03-24/way-estonia> accessed April 25, 2017.

<sup>122</sup> “With an eye on Russia, Estonia seeks security in computing cloud” <http://www.reuters.com/article/us-estonia-cybersecurity-idUSKBN0TN1BT20151204> accessed April 25, 2017.

Although considered separately, these developments of having a large base of users who have an access to efficient tools developed in Estonia is not necessarily a bad thing. If it was only the question of services, these tools can be useful to many of these internet users. But this image of a technically advanced and “progressive” country is only one side of the story. With this move beyond physical borders and offering of services to the wider audience the official reasoning for such policies has also changed. Aro Velmet has looked at this change from a perspective where e-citizens have turned into e-consumers:

This e-state vision that Bloomberg and Foreign Affairs write about and that is prevalent in Estonian discussion, does not have much in common with the discursive online-democracy visioned by former President Lennart Meri. “Progress” in Bloomberg’s view emphasizes the public sector’s efficiency, fast bureaucracy favoring business practices and good digital infrastructure. It is not active citizens who would live in this new “digital nirvana” and use smartphones to participate in creating the budget for their local government, give feedback to new legislation or elect a parliament during a lunch break, but from one side consumers, who communicate with the state when they need to pay taxes or receive the digital prescription and on the other side entrepreneurs for whom digital world means time saving in procedures and new business opportunities.<sup>123</sup>

This world described above is mostly about economic efficiency, which assumes that democracy in the case of Estonia is a ready-made object and all citizens are continuously and equally represented in the process of making a country. If the earlier vision of e-democracy can be called utopian with its hope in radical inclusion then the newer utopia becomes radical in its hope to make people under the state more like clients and the state itself a service provider. In such a scenario the rise of an individual who feels removed from the state institutions and collective identities becomes an understandable reality.

It is here that the promise offered by the Google’s Egyptian executive Wael Ghonim gets reflected back in ironic terms when his statement “If you want to liberate a society just give them the internet” is countered by Metahaven with a question of how do you liberate a society that already has the

---

<sup>123</sup> Velmet, Aro. “E-kodanikud ja E-tarbivad”, *Vikerkaar*, 10-11, 2015.

internet? <sup>124</sup> In the case of Estonia internet has become a strong tool and has entrenched itself into the legislative process and is thus already shaping this particular version of democracy.

If the idea of a borderless e-residency in this case becomes reduced to a neoliberal service package through such tools and language, then it would be in itself reinforcing the current relationship between the state and its user and citizens as a finalized financial product. In a way it can be even said that the idea of an e-residency is hijacked by corporate interests that have disguised themselves under the name of the state and are not necessarily in service of continuous development of democracy. It is somewhat telling that people behind the e-residency program stem from Estonian start-up scene and the engineering of that platform can represent in some ways the similar design choices of a traditional start-up.

In this case the hope for a more decentralized digital world that would move away from a certain kind of business culture in Silicon Valley as proposed by Maceij Ceglowski gets a strange twist as states themselves adopt the language of corporate service providers.<sup>125</sup> In the case of e-residency a common argument was used, which stated that if we would not do it, then someone else would, which very much reflects the often manic search for new ideas that is commonly related to start-up culture<sup>126</sup>

This idea of a digital e-state has created a considerable international profile for Estonia, but with the new goals the understanding of the relationship between the state, the individuals, and the society has also changed in a way that Velmet considers to be more likely a dystopia rather than a Nirvana. Through the way these technological developments change the way the subjects of the state

---

<sup>124</sup> Metahaven. "Captives of the Cloud: Part I", e-flux journal, 2012 & Wael Ghonim, cited in Rebecca MacKinnon, *Consent of the Networked: The Worldwide Struggle for Internet Freedom*, New York: Basic Books, 2012.

<sup>125</sup> Ceglowski, Maceij. "The Internet With a Human Face", [http://idlewords.com/talks/internet\\_with\\_a\\_human\\_face.htm](http://idlewords.com/talks/internet_with_a_human_face.htm) accessed, April 25, 2017.

<sup>126</sup> Kotka, Taavi. "Kui Seda Ei Tee Meie, Siis Teeks Seda Keegi Teine", *Memokraat*, <http://memokraat.ee/2014/10/kui-seda-ei-tee-eesti-siis-teeb-seda-keegi-teine/> accessed April 25, 2017.

interact with the state and each other, it becomes also clear that technology, politics and economic interests are very much interrelated in these systems of the state.

### **State of Cloud**

This chapter looked how throughout the past three decades both internet as a tool and Estonia as a state have changed in unexpected ways. But if the early credo of internet in the case of Estonia was concerned with the creation and development of more inclusive society, then this positive utopia has been channeled into a more practical goal of service economy on a state level. This is understandable partly because of the general failure of using internet as a tool for inclusion on a larger scale than personal interests and connections, and partly by realization that internet itself does not make people more interested in being active participants of the decision making process, but potentially even more singular in their everyday lives. During that time from early 1990s when the first internet connection was established in Estonia to the time now in 2017 the whole online culture has been developed. Although this chapter focused on the example of Estonia, such a change is of course not only limited to one country. And as both security issues and larger political questions have toned down the general techno-utopian wonder regarding online life, this culture is bound to change again. The spread of fake news and the shaping of political thought through the manipulations of internet media is but one example of the growing skepticism.

Nonetheless, in the case of Estonia it is not only the language of the internet that has changed, but also the digital landscape and politics surrounding that space. It is the stated goal of economic efficiency that has taken up central position considering the expansion of internet culture in the discourse both in and outside of the state. As mentioned before, this is not a unique situation and is a lineage that goes through the internet culture as whole. Yet, we can see that if in the first decade of the twenty-first century the main topic was about inclusion then the second decade demarcates a turn in talking about the internet as a toned down economic tool. The liquid user can only wonder

what happened to the radical ideas of inclusion from the 1990s that were striving for a socio-political commons, while wondering about the structures that surround it.

Political philosopher Jodie Dean has noted how internet was never really a public sphere, as the structural logics behind the architecture and design of various standards that make the functioning of that space possible have always been in the service of financial markets and communicative capitalism.<sup>127</sup> Dean notes how these standards and the policing of internet promotes a very certain kind of interaction that is consumer centric:

These regulatory interventions are invoked and pursued so as to make the Net safe for commercial exchange, to protect the Intranets of financial markets, establish the trust necessary for consumer confidence in online transactions, and to make appear as a public sphere what is clearly the material basis of the global economy.<sup>128</sup>

Now this was written before the rise of social platforms and many of the computational layers that are covering the planet today and that are more persistent as a twisted development of a public sphere. Nevertheless, it establishes the very logic behind the design that these platforms have and if a state is readily participating within that design, then it must at least 'silently' also accept the architecture behind it.

The video work *State of Cloud* (2014) that was conceived together with Mikk Madisson ponders about the place of a small nation state within the cloud structures. What role can singing play when that small nation is faced with a potential annihilation by its neighbors? What role can a system administrator with a ponytail play when a country is under cyber attack by its neighbors? What role can a liquid user play in a state of cloud computing? With the rise of network structures that are cloud-based, the metaphor of the cloud has become potent not only for the various digital networks, but also for the way that the society of cloud structures organizes itself.<sup>129</sup> Power in these structures is not exercised on localizable territory and the state is adapting to these new forms.

---

<sup>127</sup> Dean, Jodi. "Why the Net is not a Public Sphere." *Constellations* 10, no. 1, 2003: 95-112.

<sup>128</sup> *Ibid.*, 100.

<sup>129</sup> Hu, Tung-Hui. *A Prehistory of the Cloud*. Cambridge, MA: The MIT Press, 2016, xiii.

This state of things and the rise of clouds can be observed through the history and development of the West Coast counterculture that has turned into the Silicon Valley of today.<sup>130</sup> Many of the early cybernetic ideas of systems theory found their way back both to corporate culture of the digital technologies of today. In looking for the parallels between Estonia and the rise of computational platforms Mikko Madisson and me write:

The Silicon Valley revolutionary of the counterculture era has turned into a techno-capitalist visionary and a manifestation of *The Californian Ideology*. The hair that once flew freely in the winds of West Coast utopias is now worn with pride in a ponytail that is ordered by elastic band. This band is holding together the system administrator's hair is like a cybernetic feedback loop that orders a system, as culture shapes a collective image of national subjectivity. This transitioning of identity bears similarities to the story of Estonia since its restoration of independence in 1991. This is the story of a country that regained its independence and established democracy thanks to the Singing Revolution and became a technologically advanced society of start-ups and e-governance, where the corporate vision of Silicon Valley is often taken at face value.<sup>131</sup>

So the computational logic is global and what it promotes travels beyond borders in an ephemeral form, like the liquid users who so depend on the existence of these very platforms. Next to the digital e-residents, Estonia is also known for the highest rate of drug-related deaths in Europe, mostly because of Fentanyl, an opiate that is up to 100 times more potent than heroin.<sup>132</sup> This Fentanyl also operates as a quasi-platform for around 10000 people in Estonia to enter into a state of cloud every day. So this state of cloud becomes a complex relational system that is informed both by the capable users of digital gateways and by the equally able users of altered mind states. This shared cloud space of inequality has its historical roots in the counterculture that just took two very different forms. Altogether, using e-governance and the e-residency program as examples of Estonia as a digitally advanced society in the national branding campaign leads to a very specific nationhood that is part of the risk society of insecurities and uncertainties. As if the state has come to question its own self-worth facing the rise of shinier and more efficient platforms. Liquid user has to challenge this position both by offering different forms to understand e-residency and life beyond borders.

---

<sup>130</sup> Turner, Fred. *From counterculture to cyberculture: Stewart Brand, the Whole Earth Network, and the rise of digital utopianism*. Chicago, Ill: University of Chicago Press, 2008.

<sup>131</sup> SKATKA, "The Order of the Scrunchy: #digitallywelcome #physicallynotwelcome", *Estonian Art*, 2017:1, 36-42.

<sup>132</sup> See: European Drug Report, 2016. <http://www.emcdda.europa.eu/publications/edr/trends-developments/2016> accessed April, 25, 2017.

In a way we have already become e-residents by default, an interconnected community on planet Earth as seen from outer space. And in this ideal, the Westphalian nation states that were once created as a result of enlightenment ideas and politics are just entities that try to continuously prove their worth in a time that needs different kind of togetherness. It has been suggested that states also function on the scale of trying to preserve themselves as fully functioning entities, and that some of the strategies used by states come to play not as 'in the service of others', but as 'self-serving'.<sup>133</sup> In this case it would not be too much to think of the abstract idea of the state itself as bound by tensions.

So in reality the liquid user must look for an e-residency that goes beyond the idea of the state and economic efficiency and that gets packaged as a branded tool within the framework of soft power. But in doing so it should also avoid the other extreme that is governed by corporate ideas of growth and expansion. If the idea of e-residency would be truly developed not in the interests of few, it should first return to the radical ideals of borderless movement of information and participatory practices. Only like this can e-residency become a truly large idea that could shape the future of the world. What would the truly connected liquid user look like at that moment?

Christopher Kulendran Thomas' recent piece *New Eelam* (2016) proposes an online global service for collectively owned homes beyond national borders. This work reflects on the paradoxes of the world that is both connected through transnational networks and walled by outdated forms of nationhood. Although this vision of a benevolent quasi-capitalist utopia is certainly troubling, it offers a possibility beyond the fixed identities controlled by nation states. Thomas quotes political theorist Albert O. Hirschman, who posits that exit as in leaving, is the ultimate political choice possible in a liberal democracy.<sup>134</sup> For Hirschman this was the founding imperative of the United States. But the question for the liquid user in this situation is more than clear: Where possibly is there left to go?

---

<sup>133</sup> Trottier, Daniel and Christian Fuchs, *Social Media, Politics and The State*, 2015, 21.

<sup>134</sup> Thomas, Christopher Kulendran. "60 Million Americans Can't Be Wrong" exhibition announcement, 2016.



Fig. 8 & 9 - *State of Cloud* by SKATKA, screen caption, 2014.

<http://www.e-flux.com/announcements/69413/christopher-kulendran-thomas-60-million-americans-can-t-be-wrong/> accessed April, 25, 2017.



## Chapter 3:

# Providing Good Service: Liquid User Roaming the Planet

Migration is the topic of almost every conversation in the cafés of Baghdad and Damascus – in towns large and small across Syria and Iraq and beyond – along with the pros and cons of social aid given to migrants in different countries. The best routes are common knowledge, and information on new developments and up-to-date advice spreads quickly on social media, via Viber, WhatsApp and Facebook. These days all you need to reach Europe are a couple of thousand dollars and a smartphone.<sup>135</sup>

Ghaith Abdul-Ahad

While chapters 1 and 2 focused on the ways that current political and technological systems are shaping the individual and the state, chapter 3 takes a step further into the planetary scale and focuses on the digital networked platforms and how they create their own versions of selfhood where the user becomes the central organizational subject. These global structures can be seen as a networked infrastructure that has become necessary for the functioning of everyday life and that

---

<sup>135</sup> Abdul-Ahad, Ghaith. "Some Tips for the Long-Distance Traveller", *London Review of Books*, October 2015. <https://www.lrb.co.uk/v37/n19/ghaith-abdul-ahad/some-tips-for-the-long-distance-traveller> accessed April 25, 2017.

has taken over some of the roles that were once considered to be part of the contemporary state. Crowd sourced work, sharing economy, social media platforms, and the topological space of neighborhoods – these are but a few examples of transformations on the planetary scale to be considered here. The liquid user can move seamlessly from platform to platform, while the conditions for possible exits from these platforms become more perilous.

The writing here explores in greater detail the proliferation of the user on such platforms. The previously described diminishing status of the Westphalian states can be seen in conjunction with the rise of these global digital platforms and as an advent of platform imperialism, offering a new kind of addictive relationship. And it is not that the state has completely disappeared from the picture, but more that it has redesigned itself through persistent surveillance for an example.

Once again, it is important to iterate that as there are many books, which focus specifically on the topic of contemporary infrastructure and digital networked societies, the writing here is just a brief but necessary introduction to these ideas that further exemplify the changes to the twenty-first century individual and that serve both as inspirational and a theoretical background for my own artistic work.

### **Infrastructure Beyond Borders**

With decades of policies that have made Western states behave more like corporate service providers and citizens more like users, it is important to consider the nature of these digital networked platforms that in some cases have quickened this transition. The development and discovery of planetary infrastructures and standards means that the classical Westphalian state has to find new forms of relevance, for example, by presenting itself through the language of corporate branding and thus elevating its global image. During the past 25 years, planet earth has witnessed the charge of digital networks that often posit themselves as the true connectors of this world. But if

for a time the rise of internet was seen as a tool for a greater involvement in democratic practices, then there is already growing concern that the proliferation of social media platforms, massive data collection, and the surveillance of the subjects are not helping the democratic processes nor are they furthering the political debate.<sup>136</sup> So this new form of infrastructure that flows beyond borders does not behave in a way that is necessarily looking to further develop the practices of selfhood that call for the existence of expressive and free individual.

Keller Easterling writes that the notion of infrastructure “typically conjures associations with physical networks for transportation, communication, or utilities” and that it is usually considered to be a “hidden substrate.”<sup>137</sup> But Easterling continues to note that today, “more than grids of pipes and wires, infrastructure includes pools of microwaves beaming from satellites and populations of atomized electronic devices,” and that “shared standards and ideas that control everything from technical objects to management styles also constitute an infrastructure.”<sup>138</sup> So if for a long time infrastructure could be seen as something that was part of the physically built environment, usually within the borders of states, then now infrastructure is more and more about fluid flows of information on the planetary scale, no longer contained by physical borders. Although this extended notion of infrastructure still falls under the same spatial order as an addition to the previous grids, it is nevertheless harder to reveal the logics how information, goods and governability flow through these new channels. As described in chapter 1, we have become dependent on this new form of infrastructure by living a life *in media* that does not answer to same logics as these so called old forms of infrastructure. And in many instances this infrastructure that is beaming down various forms of data to digital platforms amounts to divided sovereignty, fuzzy borders, and multiple identities and governing institutions.<sup>139</sup>

---

<sup>136</sup> Han, Byung-Chul. *In the Swarm: Digital Prospects*. Translated by Erik Butler. Cambridge, MA: MIT Press, 2017.

<sup>137</sup> Easterling, Keller. *Extrastatecraft: The Power of Infrastructure Space*. London: Verso, 2016, 11.

<sup>138</sup> *Ibid.*

<sup>139</sup> Mackenzie, Debora. “End of nations: Is there an alternative to countries?,” *New Scientist*, 2014.

Benjamin Bratton has explored the geopolitical order of these contemporary platforms that surpass national borders in *The Stack*, where he looks at the rise of what he calls the “accidental mega-structure on a planetary scale”:

Planetary-scale computation both distorts and reforms modern jurisdiction and political geography and produces new forms of these in its own image. It perforates and transcends some borders while introducing and re-thickening others at new scales and in greater quantity. Design is always already there. The frame of the nation-state as the core jurisdiction is a design – deliberate and otherwise – of a geopolitical architecture derived from partitioning of planar geography, separating and containing sovereign domains as discrete, adjacent units among a linear and horizontal surface... it is less a monopoly platform than it once was.<sup>140</sup>

For Bratton the layers that constitute the information channels on planet earth cannot be grouped under the same logics as they follow different designs, but the communication channels can be observed from the distinct layers that make the Stack. Bratton continues to ponder about the idea of being a citizen within this structure that comes to life through the activation of this new form of infrastructure, as the typical structures of security are dismantled:

In these slippery redefinitions of citizenship and sovereignty in a cloud-computing era, what referent of last resort can we rely on? Human rights? End-user agreements? Can you be bound to data laws of the passport country no matter where you go? Or can your cloud platform follow you?<sup>141</sup>

By accepting the end-user agreements of these various platforms, the users might also unknowingly come to accept becoming a political subject of these neo-feudal digital platforms. It remains unclear what happens when a state cannot serve the interests of its subjects anymore. Being an effective citizen in this structure relies heavily on these digital platforms.

Cindy Cohn, who is the executive director of the Electronic Frontier Foundation has noted how she hoped that it is the technology companies who would stand with their users: “It may have to become the job of tech companies to represent their user base to the government.”<sup>142</sup> This could present more obstacles to the functioning of the classical Westphalian states and further change the loyalty

---

<sup>140</sup> Bratton, Benjamin H. *The Stack: On Software and Sovereignty*. Cambridge, MA: MIT Press, 2016, 5.

<sup>141</sup> *Ibid.*, 9.

<sup>142</sup> Thielman, Sam. “Donald Trump woos tech leaders at New York meeting”, *The Guardian*, Dec. 2016. <https://www.theguardian.com/us-news/2016/dec/14/donald-trump-google-facebook-amazon-microsoft> accessed April 25, 2017.

lines within this design if people expect their corporate service providers to also represent their political interests. In the space of weakening states this loss of identity as an effective citizen could very soon be a reality, as the networks replace, integrate, and incorporate state practices to be part of their own. And although the architecture and design of internet does not constitute it being a public space, these networks have become a twisted mutation of the traditional public space, where they become a venue for uncertainties of which post-truth is one example. This experience creates a user who can only rely on its own narrative that echoes in the desert of the individuating media and this user starts to shape the political landscape around it.

### **The Individual Becomes the User**

This paradoxical situation where the individual is bound by national borders, but functions as a user on global platforms has become more apparent in the recent years, when digital life through various devices is made more and more common. Yet, these boundaries of the computational platforms that surround and overlay the national borders are not always easily classifiable. Their form is liquid as they flow between categories. Bratton has noted how the Western sovereign individual that was developed with the Enlightenment thought becomes the contemporary user who is nevertheless dependent on the structures that surround it:

As this figure came to organize systems in its own image, its synthetic replication through microeconomics and social psychology set the stage for its cohesion into what is called, by design, the *User*. In practice, however, the *User* is not a type of creature but a category of agents; it is a position within a system without which it has no role or essential identity. Think of the *Apollo* astronaut, the Vitruvian Man of the McLuhan era, floating in space wrapped in a body-shaped bubble and linked by his umbilical tube to the mother ship. The astronaut is not the somatic *homo economicus* denuded of dependencies; he is rather a composite effect of interlocking organic and inorganic skins and metabolisms, from the mechanical life-support systems without which his bubble bursts to the trillions of microbes inside his gut without which his body will fail more slowly.<sup>143</sup>

The contemporary user within the design of Western states can be seen to perform a role through the life-support systems of these platforms. The loyalty is tested by different standards in murkier

---

<sup>143</sup> Bratton, Benjamin H. *The Stack: On Software and Sovereignty*. Cambridge, MA: MIT Press, 2016, 251.

ways and the idea of the citizen gets to be performed by the user who executes value judgments on this new infrastructure. In these choices, the individual is free to an extent, but the constraints of these freedoms are decided by the end-user agreements that are signed without a longer thought.

At the same time the information collected from the user in the form of data gets thrown back at it in more or less coercive ways. The descriptions of digital data doppelgängers are but a one example how the information collected about the user comes to its own life and reflects back on it as a digitally distorted mirror.<sup>144</sup> This personalization through data becomes alienating and dividing by making this contemporary user unsure about its very existence.



Fig. 10 – *These Days Everyone Needs a Side Hustle*, Uber advertisement, 2017.

<sup>144</sup> Watson, Sara M. "Data Doppelgängers and the Uncanny Valley of Personalization", *The Atlantic*, June 16, 2014.

As such the ride-sharing company Uber's recent advertisements "Nowadays everybody needs a side hustle." becomes revealing.<sup>145</sup> In the advertisement the driver declares in joyful tone that the side hustle in the form of constant work is the new normal. In many ways the practices of selfhood that were discussed in chapter 1, show how the managerial lifestyle has entered our everyday activities. It is here that the global platforms come to meet the users halfway by allowing both the free time and space to be monetized in a twenty-four-seven cycle.<sup>146</sup> So at least in an implicit way, playful work becomes the positive rationale for each and every moment, as the user is both providing service and enjoying the digital platform at the same time.

It is thus somewhat ironic that these same global platforms are looking for a new form of community among these self-expressing individuals. The idea of collective intelligence within groups serves as a precursor for the future that to some extent rejects the exceptional individual. In a recent book that focuses on the topics of such organizational form, the description is as follows:

Collective intelligence includes a group's capability to collaborate and coordinate effectively, and this is often much more important to the group's performance than individual ability alone. In other words, just having a number of smart individuals may be useful, but it is certainly not sufficient, for creating a smart group or a smart organization.<sup>147</sup>

At the same time, Google has also published research showing how they are looking into building the perfect team that takes into account the intelligence of the group.<sup>148</sup> The structure and the necessities for these computational platforms mean that they do not need to find the most intelligent individual, but can focus instead on building teams that would excel in their shared strengths.

Exploring the collective intelligence from the perspective of knowledge formulation, Steven Sloman

---

<sup>145</sup> Ruby, Matt. "Side Hustle as a Sign of the Apocalypse" <https://medium.com/sandpapersuit/side-hustle-as-a-sign-of-the-apocalypse-e7027a889fc2> accessed April 20, 2017.

<sup>146</sup> Tolentino, Jia. "The Big Economy Celebrates Working Yourself to Death", *New Yorker*, March 22, 2017. <http://www.newyorker.com/culture/jia-tolentino/the-gig-economy-celebrates-working-yourself-to-death> accessed April 25, 2017.

<sup>147</sup> Aggarwal, Ishani, Thomas W. Malone, Anita Williams Woolley, *Collective Intelligence in Teams and Organizations in Handbook of Collective Intelligence*. eds. Michael S. Bernstein, Thomas W. Malone. Cambridge, MA: The MIT Press, 2015, 144.

<sup>148</sup> Woolley, Anita Williams et al. "Evidence for a Collective Intelligence Factor in the Performance of Human Groups", *Science* 330, 686, 2010.

and Philip Fernbach have explored in detail how we as humans never really think alone. We think we know much more through other people as this knowledge becomes networked:

Representing knowledge is hard, but representing it in a way that respects what you don't know is very hard. To participate in a community of knowledge – that is to say, to engage in a world in which only some of the knowledge you have resides in your head—requires that you know what information is available, even when it is not stored in memory. Knowing what's available is no mean feat. The separation between what's inside your head and what's outside of it must be seamless. // Human beings sometimes underestimate how much they don't know, but we do remarkably well overall.<sup>149</sup>

Both of these examples can be seen to confirm that individual sovereignty can only go so far, but to go above and beyond, a coherent collective thinking is required that rejects the exceptional individual. Yet, at the same time these platforms survive on the expressive individuality, as the pervasive personification of data in the form of advertisement is still the main source of revenue to capitalize on all this information.

So these new technologies can be seen to configure the habits of users that are in the wait for the next big thing. And if the user becomes the central political subject, then the digital networks that rule over the subject become implicitly dominant in not only how we type and swipe on a screen, but also how we express our politics and form our identities. It remains to be seen whether persuasive methods on these platforms also signal the end of liberal democracy, but the liberties of the liquid user are destined to be challenged by its own digital exhaust in the form of data.<sup>150</sup>

In *Networked*, a book by Lee Rainie and Barry Wellman, the current social order has been compared to networked individualism. We are all participating in networks and have done so long before the use of internet, but through the use of digital networks our ability to use these structures has greatly advanced. Yet, in most cases we face those platforms alone. So on the one hand we are

---

<sup>149</sup> Sloman, Steven, and Philip Fernbach. *The Knowledge Illusion: Why We Never Think Alone*. London: Macmillan, 2017, 15.

<sup>150</sup> Big-data analytics company Cambridge Analytica has claimed that through the use of personal data, it has been able to influence the outcomes of recent elections. It is still unclear how much effect their work actually has, but this could be an example of a more persuasive personalized propaganda tool that functions largely through the use of data. See:

Doward, Jamie and Gibbs, Alice. "Did Cambridge Analytica influence the Brexit vote and the US election?" *The Guardian*, March 4, 2017. <https://www.theguardian.com/politics/2017/mar/04/nigel-oakes-cambridge-analytica-what-role-brexit-trump> accessed April 25, 2017.



attached to the digital system and on the other hand we are removed from other human actors while doing that.

Wendy Chun has observed how 'the network' has become the defining concept of our epoch.<sup>151</sup> This is the case for both the actual physical infrastructure and the platforms that come to life through the use of screen interfaces. As an extension to Benedict Anderson imagined communities, Chun proposes the notion of imagined networks, which are not fanciful in their existence, but depend on the amount of users that roam them. These networks can be seen both as formal mathematical tools to analyze social relations and also as an organizational form.

The rise of cybernetics can be seen as the beginning for the digitization of all things social.<sup>152</sup> But this digitized society also needs a digitized response to the problems it is facing. Deborah Mackenzie writes exploring the changing landscape of contemporary governing:

Ian Goldin, head of the Oxford Martin School of the University of Oxford, which analyzes global problems believes that existing institutions such as UN agencies and the World Bank are structurally unable to deal with problems that emerge from global interrelatedness, such as economic stability, pandemics, climate change and cyber security – partly because they are hierarchies of member states which themselves cannot deal with these global problems. Networked problems require a networked response.<sup>153</sup>

There is certainly no one best way to organize, but this is the place for art and the liquid user to offer its networked knowledge in the moment of facing these uncertainties. The liquid user can become the self it always wanted to be.

---

<sup>151</sup> Chun, Wendy Hui Kyong. *Updating to remain the same habitual new media*. Cambridge, MA: The MIT Press, 2016, 25.

<sup>152</sup> Franklin, Seb. *Control: Digitality as Cultural Logic*. Cambridge, MA: MIT Press, 2015.

<sup>153</sup> Mackenzie, Debora. "End of nations: Is there an alternative to countries?", *New Scientist*, 2014.



Fig. 11 - *Hope Products*, Rainar Aasrand, screen caption, 2016.

### Hope Products: Conflicts in Space

French philosopher Michel Serres writes about the millennial subject as the headless Thumbelina, who has externalized not only her knowledge to the outside world – this already happened with the advent of the printing press, but also the operating system to process that knowledge.<sup>154</sup> Serres writes that Thumbelina inhabits a topological space of neighborhoods, outside the metric space coordinated by distances. It is an admission of the disappearing notion of distance and the ever-connectedness to the network or this new form of infrastructure that is becoming a bare necessity for everyday life. How can the liquid user measure distance today in a situation of digital proximity? In our present moment we could maybe count milliseconds that the thumbs need to reach the screen – a movement, which offers a unique and immediate solution to the question of reciprocity,

---

<sup>154</sup> Serres, Michel. *Thumbelina: the Culture and Technology of Millennials*. New York: Rowman & Littlefield International, 2015.

as the ever-present digital platforms make us almost always available to endless conversations in different time zones.

As demonstrated in chapter 1, the self and the body moved towards a new form of financialized individualism, marked by particular technologies that facilitate the life of a self-conscious user. The freedom to subjugate one's own body to different hardships or pleasures as a practice of selfhood serves as a logical liberty in such a system. It remains to be seen if the twenty-first century turns out to be the twisted continuation of that liberation through the rapid externalization of the body and its functions to the symbolic machine.

In the video work *Hope Products* the server space becomes the expression of movement between these spaces: it is there that all the entries, logs and expressions of the self are saved and recorded. There is the physical journey to a place and then there is the journey that takes place through a touchscreen, where thumbs are like the gatekeepers to the vast possibilities of the externalized world. But sometimes these interactions between digital and physical space can come into conflict as it happens in the video, so what follows is the exercising of digital power through tools of exclusion.

In the late summer of 2014 two start-up companies had their amateur football teams ready for a match in The Missions playground in San Francisco. They had used an app set up by the local government to book the playing field that had previously always been used by the rules of a pickup game, which means that any team can take on the winning team on the field, but the winning team remains on the field. What follows is an awkward confrontation between neighborhood kids and the new class of technology workers who are unaware of the place that they enter into.

Although this can be viewed as a simple mistake or a scheme by the local government or an example of continuous class struggle within the framework of globalization, I believe that herein also rests a new disjunction between two sets of realities that in this case are in deep conflict with each other. The first one is the spatial reality of the local, concerning the continuation of traditions that

have grown with time and that is vertical consisting of the cultural layers stacked upon each other. The other is the reality of continuous quest for speed and efficiency that abandons previous spatial dimensions in its expansive search for new territories and is therefore planetary and in the service of the planetary stack that takes its form through computation. In the former you have roots and history that inform the story, in the latter you are always everywhere and you come from nowhere. Although both of these offer a lot to this world, the tools used in the expansion also become the tools of marginalization for the communities that are not able to adapt to the technological reality, where you have to use your externalized capacities to make sense in the human world.

In the video there is a moment when one of the prospective footballers from the tech community says: "It is really awkward and weird!" about the situation they find themselves in, capturing perfectly the current human condition.<sup>155</sup> So it is the intruder himself who apprehends the situation, where the navigation between these two realities is problematic as this new form of colonization through the externalized devices does not happen all that easily. In this case, grace is on the side of locals, who have both the courage and the layers of cultural history to deal with the situation.

All hope for reconciliation between those two realities is abandoned when the local group's proposal to play together is rejected by the newcomers. This division exemplifies the situation that is happening not only in San Francisco, but all over the world, where the control of externalized devices becomes central to the question who or rather what controls the body and the room that surrounds these bodies. The ability to navigate this new set of rules makes it possible for the proficient Thumbelinas to move around without trouble, as distance is not really a distance anymore. The others who lack that literacy have to learn how to deal with continuous intrusions into their physical neighborhoods.

*Hope Products* becomes a treatment of the reality that is not merely didactic and limited to a mere description of the world, but a trial to bring fictionalized reality closer to the understanding of the

---

<sup>155</sup> "Mission Playground is not for sale" <https://www.youtube.com/watch?v=awPVY1DcupE> accessed April 20, 2017.

self. Although I have described the lack of perceptible distance in the world, as I perceive it, there is still an element of longing or of hope. In looking at the bodies that surround me I see the possibility for freedom without compromising personal privacy, freedom without abandoning the larger social groups and history.



Fig. 12 - *Barbed State*, video, SKATKA, screen caption, 2016.

The campaign *Work in Estonia* that is portrayed in the *Barbed State* video is another marker how a small state has to make itself visible to attract potential foreign workers or users through the use of infrastructure that allows both local and foreign users to enjoy all the benefits of E-Estonia across borders. At the same time, people in Estonia are afraid of the imaginary other, whether it is the symbolic bogey in a forest or a potential immigrant. So paradoxically, while in the digital space, cocktail glasses are clinking and everybody is more than welcome to join the party in their digital

form, the demarcation of borders in the physical space is yet to be ceased, even if the walls of separation are in many cases imaginary.

One of the biggest Cloud-based service providers, Amazon's Mechanical Turk platform, allows clients to outsource tasks to remote workers via the internet. These workers are paid on commission but don't have their social security fees covered by their temporary employer. Although the *Work in Estonia* campaign that is portrayed in the video, does not necessarily aim to attract an outsourced workforce, some of the people who actually followed the campaign to Estonia met similar conditions as Mechanical Turks on digital platforms. Even though the campaign paints a picture of seamless integration, becoming a physical resident involves a lot of bureaucracy and sometimes even harassment by the state apparatuses.<sup>156</sup>

In many ways Mechanical Turks are a good example of liquid human users of the cloud who are often mistaken for non-human users of the cloud. Most people consider the tasks they perform to be automated by such non-human actors as bots and algorithms. Here, human users perform the global infrastructure.

---

<sup>156</sup> Zehmke, Justin. "Move to Estonia, they said. It will be easy, they said." *Estonian World*, 2016. <http://estonianworld.com/opinion/move-estonia-said-will-easy-said/> accessed April 20, 2017.

## Conclusion

Although this thesis may seem like a grim description of what it means to be human on the digital platforms where the self is practiced through these technologies, it was not written without hope. As an artist, I find it to be my task to offer something more than a mere reaction, and even if this hope is slim, it manifests in the form of creation. But this creation needs a strong background, it has to be grounded – therefore this thesis.

These digital realities that are looking at these moments of movement for the liquid user are well beyond human understanding and scale, so they are not only difficult to understand, but also to visualize. But this imagining and reflection can serve as a chart to navigate this complex system of changing relations between the individual, states, and global platforms. Nick Srnicek, drawing on the work of Fredric Jameson, has proposed that the work that fits under the loose category of 'new aesthetics' can have a meaningful impact through the effect of cognitive mapping. He writes that the new aesthetics, at its best, is about the expansion of sensible possibilities beyond human

limitation.<sup>157</sup> These aesthetics can help to create an understanding of the non-object that is the neoliberal world and also the bodies within that world. It is my hope to give form as much as I can to this world of an uncanny valley of interactions. It is not a question of pessimism or optimism, but courage offered through being proactive.

*Liquid User Enters the World of Empty Secrets* will be the final work that I produce at MIT. It will bring together the notions explored in this thesis, as the user subject becomes an organizational form in the digitized societies. In many ways this liquid user has to face the world of uncertainty with a conviction that makes it heroic each and every day of its life. This liquid user has to become a master of its own destiny and art can create a sense of belonging for that new individual.

I am aware that this thesis is in many ways safe in its exploration by avoiding conflict – something that is so common in the neoliberal ideal. But the intention here is simply to reflect and then start again.

---

<sup>157</sup> Srnicek, Nick. "Navigating Neoliberalism: Political Aesthetics in an Age of Crisis", *After Us* Vol. 1, 2015.



## Acknowledgements

Although much of this thesis is focused on the individual and the self, I know that this work would not have been possible without the very special people around me. I am thankful to my friends, family, and colleagues who have shaped my thinking and pushed me to consider these discussed topics even further both in theory and practice. The work continues and the conversations go on.

My endless gratitude belongs to my family for supporting me so patiently during each and every day of my life without limitations. Their accompanying words and trust have been essential in making all this possible.

A special thanks goes to my friends at MIT, both the resourceful professors and brilliant students who always amaze and inspire me. I especially want to thank my thesis advisor Gediminas Urbonas, who has encouraged me to experiment in new ways with my art. I also want to thank my thesis committee, Jelena Martinovic, Lars Bang Larsen, and Tobias Putrih, who have been thoroughly helpful in extending the scope of this thesis. I also want to thank Mario Caro, who made sure that the thesis really is a thesis and Renée Green for fruitful conversations.

I am also very thankful to Estonian National Culture Foundation, Estonian Ministry of Culture, and Archimedes Foundation for supporting my research and practice during these past two years.

Of my friends I am especially grateful to Mikk Madisson, who as a friend and a colleague has been present, while many of these ideas and works have taken their form. And a joyous and special appreciation goes to Andrea Carrillo, who has been a wonderful help for these past months, while I was trying to make sense all of this.

# Bibliography

## Books:

Acker, Kathy. "Against Ordinary Language: The Language of the Body." *Bodies of Work*, London and NY: Serpent's Tail, 1997.

Althusser, Louis, Etienne Balibar, Jacques Bidet, and G. M. Goshgarian. *On the Reproduction of Capitalism: Ideology and Ideological State Apparatuses*. London: Verso, 1971/2014.

Anderson, Benedict R. O'G. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso, 1991.

Aggarwal, Ishani, Thomas W. Malone, Anita Williams Woolley, *Collective Intelligence in Teams and Organizations in Handbook of collective intelligence*. eds. Michael S. Bernstein, Thomas W. Malone. Cambridge, MA: The MIT Press, 2015.

Bauman, Zygmunt. *Modernity and Its Outcasts*, Cambridge: Polity, 2004.

– *Liquid Times: Living in an Age of Uncertainty*. Oxford: Wiley, 2013.

Bauman, Zygmunt and Rein Raud. *Practices of Selfhood*, Cambridge: Polity, 2015.

Bauman, Zygmunt and Leonidas Donskis. *Liquid Evil: Living with TINA*. Malden, MA: Polity, 2016.

Beck, Ulrich. *Risk Society: Towards a New Modernity*. London: Sage Publications, 1992.

– 'Foreword' in S. Allan, B. Adam and C. Carter eds. *Environmental Risks and the Media* London: Routledge., 2000.

Braidotti, Rosi, *The Posthuman*. Cambridge: Polity Press, 2013.

Bratton, Benjamin H. *The Stack: On Software and Sovereignty*. Cambridge, MA: MIT Press, 2016.

Brown, Wendy. *Undoing the Demos: Neoliberalism's Stealth Revolution*. Cambridge, MA: MIT Press, 2015.

Bröckling, Ulrich. and Steven Black. *The Entrepreneurial Self: Fabricating a New Type of Subject*. Los Angeles: Sage, 2016.

Butler, Judith. *Bodies that Matter: on the Discursive Limits of Sex*, London: Routledge, 2014.

Carroll, Lewis. *Through the Looking Glass and What Alice Found There* New York: Barnes & Noble, 2015.

- Charles, Alec. "New Media, New Europe: Estonia's E-mediated State", in *Media in the Enlarged Europe: Politics, Policy and Industry*, University of Chicago Press, 2009.
- Coetzee, J. M. *Diary of a Bad Year*. London: Vintage, 2008.
- Cox, Christopher, Jenny Jaskey, Suhail Malik, eds. *Realism, Materialism, Art*. New York: Center for Curatorial Studies, Bard College; Berlin: Sternberg Press, 2015.
- Deaton, Angus. *The Great Escape: Health, Wealth, and the Origins of Inequality*. Princeton: Princeton Univ. Press, 2013.
- Deleuze, Gilles, and David Lapoujade. *Two Regimes of Madness: Texts and Interviews, 1975-1995*. New York: Semiotext(e), 2007.
- Deuze, Mark. *Media life*. Cambridge: Polity Press, 2013.
- Foucault, Michel. *History of Sexuality: An Introduction*. Trans. Hurley, Robert. Random House Inc., New York, 1978.
- *The Care of the Self: The History of Sexuality vol. 3*, New York: Random House Inc., 1986.
  - *Discipline and Punish: The Birth of the Prison*. New York: Random House Inc., 1975.
  - *Technologies of the Self* eds. Luther H. Martin, Huck Gutman and Patrick H. Hutton. Amherst: Univ. of Massachusetts Press, 1988.
- Easterling, Keller. *Extrastatecraft: the power of infrastructure space*. London: Verso, 2016.
- Farivar, Cyrus. *The Internet of Elsewhere*, Rutgers University Press, 2011.
- Giddens, Anthony. *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Stanford: Stanford University Press, 1991.
- Greenstein, Shane. *How the Internet Became Commercial*, Princeton: Princeton University Press, 2017.
- Greif, Mark. *Against Everything: Essays, 2004-2015*. New York: Pantheon Books, 2016, 18.
- Han, Byung-Chul. *In the Swarm: Digital Prospects*. Translated by Erik Butler. Cambridge, MA: MIT Press, 2017.
- Harman, Graham, *Quentin Meillassoux: Philosophy in the Making*. Edinburgh: Edinburgh University Press, 2011.
- Hu, Tung-Hui. *A Prehistory of the Cloud*. Cambridge, MA: The MIT Press, 2016.

- Lupton, Deborah. *Medicine as Culture: Illness, Disease and the Body*, 3rd edn. London: Sage, 2012.
- Lupton, Deborah. *The Quantified Self: A Sociology of Self-tracking*. Cambridge, UK: Polity, 2016.
- Marcuse, Herbert. *One Dimensional Man: the Ideology of Industrial Society*. London: Sphere Books, 1968.
- Mathias, Michael B. *John Stuart Mill: On Liberty*. New York: Pearson Longman, 2007.
- Merleau-Ponty, Maurice. *Phenomenology of Perception*, London: Routledge, 2012.
- Mythen, Gabe. *Ulrich Beck: a Critical Introduction to the Risk Society*. London: Pluto Press, 2004.
- Neff, Gina & Dawn Nafus. *Self-tracking*, Cambridge, US: MIT Press, 2016.
- Nye, Joseph S. Jr., *Soft Power: The Means to Success in World Politics*, New York: Public Affairs, 2004.
- Sartre, Jean-Paul. *Critique of Dialectical Reason*. London: Verso, 1991.
- Schneider, Rebecca. *The Explicit Body in Performance*. London: Routledge, 2010.
- Serres, Michel. *Thumbelina: the Culture and Technology of Millennials*. New York: Rowman & Littlefield International, 2015.
- Siedentop, Larry. *Inventing the Individual: the Origins of Western Liberalism*. UK: Penguin Books, 2015.
- Slooman, Steven, and Philip Fernbach. *The Knowledge Illusion: Why We Never Think Alone*. London: Macmillan, 2017.
- Smith, Adam. *An Enquiry into the Nature and Causes of the Wealth of Nations*, ed. R. H. Campbell, A. S. Skinner and W. B. Todd. Vol. II in the Glasgow Edition of the Works and Correspondence of Adam Smith. Oxford: Clarendon Press, 1976.
- Sum, Ngai-Ling & Bob Jessop, *Towards a Cultural Political Economy: Putting Culture in Its Place in Political Economy*. Cheltenham: Edward Elgar, 2013.
- Trottier, Daniel and Christian Fuchs, *Social Media, Politics and The State*, Routledge, 2015.
- Turner, Fred. *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*. Chicago, Ill: University of Chicago Press, 2008.

Žižek, Slavoj. *On Belief*, London: Routledge, 2003.

Wolfe, Cary, *What is Posthumanism?* Minnesota: University of Minnesota Press, 2009.

### Articles, Announcements & Interviews:

Abdul-Ahad, Ghaith. "Some Tips for the Long-Distance Traveller", *London Review of Books*, October 2015. <https://www.lrb.co.uk/v37/n19/ghaith-abdul-ahad/some-tips-for-the-long-distance-traveller> accessed April 25, 2017.

Abend, Pablo & Mathias Fuchs. "The Quantified Self and Statistical Bodies: Introduction", *Digital Culture & Society* Vol. 2:1, 2016, 5-21.

Ajunwa, Ifeoma, Kate Crawford, Jason Schultz. "Limitless Worker Surveillance", *California Law Review*. Vol. 105:3, 2017.

Anonymous. "War in the Fifth Domain," *The Economist*, July 2010.  
<http://www.economist.com/node/16478792> accessed April 25, 2017.

Bettridge, Thom. "Interview with Daniel van der Velden and Vinca Kruk", *032c Magazine*, 2015.  
<http://032c.com/2015/coup-de-net-metahavens-black-transparency> accessed April 25, 2017.

boyd, danah & Kate Crawford. "CRITICAL QUESTIONS FOR BIG DATA", *Information, Communication & Society*, 15:5, 2012, 662-679.

Brown, Wendy and Graw, Isabelle. "Invest yourself!", *Texte Zur Kunst*, Vol. 26:106, 2016, 38.

Busta, Caroline and Anne Dyes. "Introduction", *Texte Zur Kunst*, Vol. 26:106, 2016.

Calasso, Roberto. "The Art of Fiction No. 217", *The Paris Review*, 2012.

Campbell, T. D. "Adam Smith and Natural Liberty", *Political Studies*, Vol. 25, 1977, 523–534.

Cantillon, Richard. "An Essay on Economic Theory", Auburn: Mises Institute, 2010.

Case, Anne & Angus Deaton. *Mortality and Morbidity in the 21st Century*.  
<https://www.brookings.edu/wp-content/uploads/2017/03/case-deaton-postconference-april-10-2017-with-appendix-figs.pdf> accessed April 25, 2017.

Ceglowski, Maceij. "The Internet With a Human Face",  
[http://idlewords.com/talks/internet\\_with\\_a\\_human\\_face.htm](http://idlewords.com/talks/internet_with_a_human_face.htm) accessed, April 25, 2017.

- Chakravorti, Bhaksar, Christopher Tunnard, Ravi Shankar C. "The Way to Estonia: How to Reach Digital Nirvana," *Foreign Affairs* <https://www.foreignaffairs.com/articles/global-commons/2015-03-24/way-estonia> accessed April 25, 2017.
- Crawford, Kate, Jessa Lingel & Tero Karppi. "Our Metrics, Ourselves: A Hundred Years of Self-Tracking from the Weight Scale to the Wrist Wearable Device", *European Journal of Cultural Studies*, 18:4-5, 2015, 479-96.
- Curtis, Adam. "From a conversation with Yancey Strickler", *The Creative Independent*, 2017 <https://thecreativeindependent.com/people/adam-curtis-on-the-dangers-of-self-expression/> accessed April 25, 2017.
- Dean, Jodi. "Why the Net is not a Public Sphere." *Constellations* 10, no. 1, 2003: 95-112.
- Deitch, Jeffrey. "Exhibition Histories: Post Human". *Spike Art Quarterly*, No 47, 2016.  
– "Post Human Exhibit Catalogue Essay", 1992.  
<http://www.artic.edu/~pcarroll/PostHuman.html> accessed April 25, 2017.
- Deleuze, Gilles. "Postscript on the Societies of Control" *October*, Vol. 59, 1992.
- Denis, Andy. "Was Adam Smith an Individualist?" *History of the Human Sciences*, Vol. 12:3, 1999, 71-86.
- Doward, Jamie and Gibbs, Alice. "Did Cambridge Analytica influence the Brexit vote and the US election?" *The Guardian*, March 4, 2017. <https://www.theguardian.com/politics/2017/mar/04/nigel-oakes-cambridge-analytica-what-role-brexit-trump> accessed April 25, 2017.
- Feher, Michel. "Self-Appreciation", *Public Culture*, Vol. 21:1, 2009, 21-41.
- Giddens, Anthony. "Risk Society: The Context of British Politics" in J. Franklin (ed.) *The Politics of Risk Society*, Cambridge: Polity Press, 1998, 23–34.
- Glas, Gerit. "Person, Personality, Self, and Identity: A Philosophically Informed Conceptual Analysis", *Journal of Personality Disorders*, 20:2, 2006, 126-138.
- Grimmelmann, James. "Death of a data haven: cypherpunks, WikiLeaks, and the world's smallest nation", *Ars Technica*, 2012, <http://arstechnica.com/tech-policy/2012/03/sealand-and-havenco/1/> accessed April 25, 2017.
- Hall, Stuart and Alan O'Shea. "Common-sense Neoliberalism", 2013.  
[www.lwbooks.co.uk/journals/soundings/manifesto.html](http://www.lwbooks.co.uk/journals/soundings/manifesto.html) accessed April 25, 2017.
- Haraway, Donna, "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century", *Socialist Review*, Vol. 80, 1985, 65-107.
- Harrasser, Karin. "Interview with Stelarc". *Spike Art Quarterly* No 47, 2016.
- Harrison, Tom, Humphrey Jennings & Charles Madge. "Anthropology at Home", *New Statesman and*

- Nation*, January 30, 1937.
- Hochmann, David. "Amy Cuddy Takes a Stand", *New York Times*, September, 2014.  
<https://www.nytimes.com/2014/09/21/fashion/amy-cuddy-takes-a-stand-TED-talk.html>  
 accessed April 25, 2017.
- Kotka, Taavi. "Kui Seda Ei Tee Meie, Siis Teeks Seda Keegi Teine", *Memokraat*,  
<http://memokraat.ee/2014/10/kui-seda-ei-tee-eesti-siis-teeb-seda-keegi-teine/> accessed  
 April 25, 2017.
- Kitchin, Rob. *The Data Revolution: Big Data, Open Data, Data Infrastructures and Their Consequences*. London: Sage, 2014.
- LaGrandeur, Kevin, "What is the Difference between Posthumanism and Transhumanism". *Ethical Technology*, July 2014.
- Langley, Patrick. "Ryan Trecartin: The Real Internet is Inside You", *The White Review*, April 2012.
- MacKenzie, Deborah. "End of Nations: Is there an alternative to countries", *New Scientist*, 2014.
- Metahaven, "Brand States: Postmodern Power, Democratic Pluralism, and Design", *e-flux journal*,  
 New York, 2008.
- Metahaven, "Captives of the Cloud: Part I", *e-flux journal*, 2012 & Wael Ghonim, cited in Rebecca  
 MacKinnon, *Consent of the Networked: The Worldwide Struggle for Internet Freedom*,  
 New York: Basic Books, 2012.
- Mueller, Andrew. "Life on the Edge", *Monocle*, 78, 2014.
- Ostry, Jonathan D, Prakash Loungani, and Davide Furceri. "Neoliberalism: Oversold?" *Finance &  
 Development*, International Monetary Foundation, June 2016.  
<https://www.imf.org/external/pubs/ft/fandd/2016/06/ostry.htm> accessed April 25, 2017.
- Raba, Rannar. "Interview with Taavi Rõivas", *Sakala*, December, 2015.  
<http://sakala.postimees.ee/3435949/peaminister-eesti-on-joudnud-peenhaalestuse-ajajarku>  
 accessed April 25, 2017.
- Ruby, Matt. "Side Hustle as a Sign of the Apocalypse"  
<https://medium.com/sandpapersuit/side-hustle-as-a-sign-of-the-apocalypse-e7027a889fc2>  
 accessed April 20, 2017.
- Sanderson, Sertan. "Digital Estonians, E-Residency as the way of Future", *Deutsche Welle*, 2015,  
<http://www.dw.com/en/digital-estonians-e-residency-as-the-way-of-the-future/a-18634797>  
 accessed April 25, 2017.
- Schildkrout, Enid. "Inscribing the Body." *Annual Review of Anthropology* 33, no. 1, 2004, 319-44.

- SKATKA. "The Order of the Scrunchy: #digitallywelcome #physicallynotwelcome", *Estonian Art*, 2017:1, 36-42.
- Srnicek, Nick. "Navigating Neoliberalism: Political Aesthetics in an Age of Crisis", *After Us* Vol. 1, 2015.
- Stonor Saunders, Frances. "Where on Earth Are You?" *London Review of Books*, 2016.  
<http://www.lrb.co.uk/v38/n05/frances-stonorsauanders/where-on-earth-are-you> accessed April 25, 2017.
- Szeman, Imre. "Entrepreneurship as the New Common Sense", *South Atlantic Quarterly*, Vol. 114:3, 2015.
- Tarnoff, Ben. "The New Status Symbol", *The Guardian*, April, 2017.  
<https://www.theguardian.com/technology/2017/apr/24/new-status-symbol-hard-work-spending-ceos> accessed April 25, 2017.
- Thomas, Christopher Kulendran. "60 Million Americans Can't Be Wrong" exhibition announcement, 2016. <http://www.e-flux.com/announcements/69413/christopher-kulendran-thomas-60-million-americans-can-t-be-wrong/> accessed April, 25, 2017.
- Thielman, Sam. "Donald Trump woos tech leaders at New York meeting", *The Guardian*, Dec. 2016.  
<https://www.theguardian.com/us-news/2016/dec/14/donald-trump-google-facebook-amazon-microsoft> accessed April 25, 2017.
- Tolentino, Jia. "The Big Economy Celebrates Working Yourself to Death", *New Yorker*, March 22, 2017. <http://www.newyorker.com/culture/jia-tolentino/the-gig-economy-celebrates-working-yourself-to-death> accessed April 25, 2017.
- Traynor, Ian. "Russia Accused of Unleashing Cyberwar to Disable Estonia," *The Guardian*, May 2007, <http://www.theguardian.com/world/2007/may/17/topstories3.russia> accessed April 25, 2017.
- Vallye, Anna. "Design and the Politics of Knowledge in America, 1937-1967: Walter Gropius, Gyorgy Kepes", PhD diss., Columbia University, 2011.
- Velmet, Aro. "E-kodanikud ja E-tarbijad", *Vikerkaar* 10-11, 2015.
- Watson, Sara M. "Data Doppelgängers and the Uncanny Valley of Personalization", *The Atlantic*, June 16, 2014.
- Wolf, Gary. *The Data Driven Life*, New York Times, April 28, 2010,  
<http://www.nytimes.com/2010/05/02/magazine/02self-measurement-t.html> accessed April 25, 2017.



Woolley, Anita Williams et al. "Evidence for a Collective Intelligence Factor in the Performance of Human Groups", *Science* 330, 686, 2010.

Zehmke, Justin. "Move to Estonia, they said. It will be easy, they said." *Estonian World*, 2016.  
<http://estonianworld.com/opinion/move-estonia-said-will-easy-said/> accessed April 20, 2017.

## List of Images

**Fig. 1 - pg. 33** - On Kawara 5 *MARS 1973*, from *I Got Up* series, 1968–79. Stamped ink on postcard, 4 × 5 inches (10.2 × 12.7 cm) New Mexico Museum of Art, Santa Fe, New Mexico, Gift of Lucy R. Lippard, 1999 © On Kawara. Photo: Courtesy Michèle Didier.

**Fig. 2 - pg. 36** - *Surplus; Numbers are Ruining Me*, performance by Rainar Aasrand, photo by Andrea Carrillo Iglesias, 2016.

**Fig. 3 - pg. 36** - *Surplus; Numbers are Ruining Me*, performance by Rainar Aasrand, digital screen capture of biometric data captured with a Fitbit bracelet, 2016.

**Fig. 4 - pg. 37** - *Surplus; Numbers are Ruining Me*, performance by Rainar Aasrand, photo by Andrea Carrillo Iglesias, 2016.

**Fig. 5 - pg. 38** - *Surplus; Numbers are Ruining Me*, performance by Rainar Aasrand, photo by Gediminas Urbonas, 2016.

**Fig. 6 - pg. 44** - *Surplus; Numbers are Ruining Me*, performance by Rainar Aasrand, photo by Andrea Carrillo Iglesias, 2016.

**Fig. 7 - pg. 48** - *State of Cloud* by SKATKA (Mikk Madisson & Rainar Aasrand), print, 2014.

**Fig. 8 - pg. 64** - *State of Cloud* by SKATKA (Mikk Madisson & Rainar Aasrand), screen capture, 2014. Full video: <https://vimeo.com/112312573> accessed May 10, 2017.

**Fig. 9 - pg. 64** - *State of Cloud* by SKATKA (Mikk Madisson & Rainar Aasrand), screen capture, 2014. Full video: <https://vimeo.com/112312573> accessed May 10, 2017.

**Fig. 10 - pg. 70** - *These Days Everyone Needs a Side Hustle*, Uber advertisement, 2017.

**Fig. 11 - pg. 74** - *Hope Products*, Rainar Aasrand, screen caption, 2016.

**Fig. 12 - pg. 77** - *Barbed State*, video, SKATKA, screen caption, 2016.