

# Power & Social Acceleration in a Digitizing Europe



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## Abstract

This paper examines the impact of the Estonian initiative and push for the implementation of the Once-Only Principle on a European Union level by engaging in an analysis framed within the theoretical frameworks of Michel Foucault, Daniel R. McCarthy and Hartmund Rosa, and will attempt to do so by synthesizing these theories' notions of power and social acceleration. The paper concludes that the OOP can be seen as a mechanism that reproduce and maintain cultural hegemony, and that this furthermore is both a result of, and a catalyst for social acceleration.

Key words: Estonia, Once-Only Principle (OOP), Digitization, power, Social Acceleration, BT, SCOOP, TOOP,, Cultural Motor, Structural Motor, Economic Motor, SCOT, Surveillance, Correct Training, Normalising Judgement, Hegemony, Exercising Power through State Apparatuses, Instrumentalism, Essentialism, Effectivisation, Agency, Decentralizing economy, Social credit.

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# Introduction

The future is here and it's digital. Nobody living in a digital society can avoid it, no matter how pessimistic they may be about digital technology. Today's societies overwhelmingly suggest a development towards a higher and higher degree of digitization. With the advent of Blockchain Technology (BT) and the ubiquitous presence of digitization, the emergence of initiatives such as the Once-Only-Principle (OOP) has introduced new questions posed for the future role and impact of these new technologies and the initiatives started in their wake. The emergence of BT within the last 10 years, has exponentially created new ways of utilizing digital technology that seemed quite impossible in modern democracies few centuries ago. At the forefront of this digital revolution is Estonia, a small country in the Baltics that has established themselves as one of the global leaders, when it comes to digitizing public administration and business, using and developing the newest technology in the digital revolution: Blockchain Technology.

Skype was developed in Estonia (though invented and marketed by a Dane and a Swede), computer programming is a part of the school curriculum and in the year 2000 they declared internet access a human right as the first country in the world (Walt, 2017). Today, rapidly emerging technological developments are well-integrated in the Estonian government structure and close to all data storage is - and has been since 2008 - built on BT ("e-Estonia, 2017). By utilizing BT both public and private institutions cooperate in creating transparency, trust and more secure, efficient and low-cost data-sharing possibilities, according to their own website ("e-Estonia, 2017). However, with this form of transparent data-sharing comes an increase in data-surveillance of both citizens and companies.

The premise put forth by this paper is that OOP is an initiative that will be influencing the push of social acceleration, a phenomenon Hartmut Rosa addresses in his *Social Acceleration: A new theory of modernity*. From that acceleration, reigning power structures are reinforced and perpetuated through the implementation of Information Communications Technology (ICT) such as BT. This serves ultimately as a tool for big data surveillance, and brings about the inherent power dynamics that follow such development.

This paper aims to investigate the impact of OOP put forward by the Estonian government using BT and pushing for its use on a EU-wide scale. We will be looking at different

initiatives such as The Once-Only Principle (TOOP) and Stakeholders Community: Once-Only Principle for Citizens (SCOOP4C) in our analysis by using Foucault, McCarthy and Rosa, synthesizing their theories and then discuss the significance of OOP.

Finally, what we are interested in, is not merely a techno-pessimist<sup>1</sup> approach of criticising any form of technological development but also discuss the positive attributes of digital development by looking at it from a techno-optimist approach. What the paper overall aims to do, is acknowledging that the future will be as full of technology as the past, but that the advent of BT, as another step into the future of technological advancement, at the same time presents itself with a multitude of complex problems with far-reaching implications that deserve attention and scrutiny.

This is not an exhaustive study and is one that will attempt to shed some light on the new technologies that are emerging and already having an immense impact on our society. The paper will be focused on the Estonian government's push for digitizing the EU through the OOP and the impact on the societies. We will be using the terms *technology*, *technologies* and *technological* throughout the paper and will be referring to Information Communication Technologies (ICTs) in doing so.

## Motivation

Our motivation for this project springs from observing how digital development is moving forward faster than ever - and how this is affecting our social world, which we will elaborate on throughout the paper. Within the spectrum of technology, our specific interest lies in the digitization of private and public information and services, more specifically how OOP is being implemented and pushed forward by Estonia. Things are moving fast across the globe lately and this is mostly due to the acceleration of Information technologies (Rosa, 2003, p. 14). Quantum computers are on the horizon, artificial intelligence grows more sophisticated with each passing day and our devices are becoming, smarter, smaller, cheaper and faster. Net neutrality was just repealed the 14th of december 2017 marking the potential end of the free internet, cryptocurrency is exploding globally and has surpassed the 500 billion dollar mark making it a tendency ripe for disrupting several industries. In the midst of all this stands

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<sup>1</sup> A term presented by By D. McCarthy, see chapter; McCarthy: Instrumentalism, essentialism, and social construction and technology.

Estonia with their promise of Blockchain-based E-governance systems, efficiency and social mobility.

With scarce resources, the Estonian government built a digital society within 20 years, after regaining its independence from the Soviet Union in 1991. This paper intends to investigate the Estonian OOP and the process of this digitization in Europe to achieve a deeper understanding of the interconnectedness between ICTs, power and social acceleration. OOP is presented as a new measure that will save costs and open up new business opportunities (Ministry of Economic Affairs and Communications, 2017) and the Estonian government is using BT as a method of democratic governing that gives citizens their rights and transparency back. It is the web 3.0, an expansion of the internet and the online infrastructure of today (Tinworth, 2017).

## Problem Definition and Research Questions

What cultural and power relational challenges does the Estonian ‘Once Only Principle’ pose, and how does the push for digitization of Europe reflect social acceleration?

- How can we understand ICTs as a socially constructed technology?
- What are the subtle power formations in the OOP, and how does these construct and reproduce cultural and ideological hegemony?
- Can we understand the OOP push through cultural, structural, and technological acceleration?

## E-Estonia: Developing a Digitized Society

This section is to introduce the reader to the historical progress of Estonia, and present some examples of Estonia’s digital implementations, and why they have chosen to invest in the digitization of their society. We will not go in depth with all the information presented in this section but it is merely to be seen as foundational knowledge of Estonia.

After Estonia regained its independence from the Soviet Union in 1991, the Estonian government decided it was an opportunity for a fresh start, since the country was free from

the economic system and governmental tax laws of the Soviet Union. However, due to the scarce resources and small population, Estonia needed to act fast and in a creative manner (Walt, 2017). Instead of searching backwards for old ways of building their economy and society, Estonia looked at tendencies within societal development of the present, and decided to lead their conducts from the emerging future (ibid.). Shortly after the Soviet Union imploded, and Estonia was free to exercise their own societal structures, the internet was also emerging on a global level (ibid.). From thereon out, Estonia's vision has been to become a leading, advanced digital society, where transparent and efficient digital ecosystems change the life of all Estonians for the better, and also becoming a role model for nations worldwide (ibid.).

The first big step towards digitization of Estonian society was announced by the Estonian president on the 21st of February 1996, and that first step was a significant investment in the project Tiigrihüpe (Tiger's leap) (ibid.). This investment was primarily focused on the educational system, and secured the implementation of computers and internet in all schools. Hence, in year 2000 Estonia became the first country to declare internet access a basic human right (ibid.). This development led to the creation of the internet-driven telecommunications application Skype in 2003 in Estonia, founded by a Dane and a Swede and developed by a group of Estonian developers, and Skype was sold to Microsoft in 2011 for 8.5 billion dollars (ibid.). The sellers decided to invest the money in Estonia and its technological development, which resulted in the emergence of an entrepreneurial spirit which effects are still influencing the development of the e-society currently still being built in Estonia today (ibid.).

Almost every Estonian citizen today, is equipped with a digital ID Card that was launched in 2001. This is a mandatory card for all Estonian citizens above the age of 15, that is used to verify your identity online in all the e-services provided in the portal called eesti.ee (e-estonia, 2017). Furthermore, the ID card can be used to start businesses, sign contracts online, order prescription medicine, book doctors appointments, as a membership card to sports clubs and cafes etc (eesti.ee). In other words, all the different hurdles and strenuous processes that usually occur when dealing with a firm bureaucracy is streamlined through this ID card. Each card is given a unique digital code, and two pin codes which make them safe from identity theft. This security system enabled the implementation of i-voting in 2005, where citizens can vote online in democratic elections and decisions, in only three minutes. In



fact, 99% of all public services are digital available to the citizens, because of Estonia's e-governance politics.

Estonia has been striving for an efficient interconnectedness and collaboration between the citizens and the state since its independence was regained: "The Estonian dream is to have as little state as possible, but as much as necessary" (e-estonia.com, 2017). As the digitization of Estonia progressed each year, so did its online dependency and in 2007, the country was subject to a cyberattack, which Estonians believe was carried out by Russia, because of political reasons, though these accusations are not backed by adequate evidence to support the claims (Traynor, 2017). The attack resulted in; public services, the bank and the parliament going offline. The system was rebooted a few days after the attack, but it made the Estonians come to an important realization - an effective digitized society requires an equally effective digital security system. In response to the cyberattack, Estonia became the first country in the world to implement BT on national level. Today, all the data within healthcare, e-governance, education, security & safety and business & finance is distributed through public ledgers running on a BT named KSI (Walt, 2017). Once the data have been distributed through one of the ledgers, they have been permanently encrypted in the blockchain, making them practically impossible to tamper with (this will be further elaborated in the next section). The Estonian government is constantly working on improving security and by the end of 2017 or beginning of 2018, Estonia will have established the world's first data embassy in Luxembourg. This means that state information will be stored outside of the Estonian state boundaries, and the embassy will function as a backup database to use in case of a potential cyberattack such as the cyberattack that was carried out in 2007. The data embassy will also be able to work the most crucial public services of the digital system in Estonia, in case that the system gets hacked (Walt, 2017). By using the establishment of the data embassy as an example, the Estonian government encourage other nations to consider how cross-border data sharing ensures security and stability. This encouragement has been further promoted in the last five months, as Estonia has held its first Presidency of the Council of the European Union since July 1st 2017 (Ministry of Economics Affairs and Communications, 2017). One of the top four priorities for their presidency is to make digital data sharing across borders a reality within Europe, both in the private and public sector. This includes developing cross-border e-commerce, e-services and digital public services to

increase efficiency within business and make everyday-life easier for all European citizens (Ministry of Economic Affairs and Communications, 2017).

The successful digitization of the Estonian society has led Estonian government to encourage other nations to follow their lead. The e-Estonia Showroom is a centre in Tallinn that invites investors, international media, big corporations and global policy makers to Estonia, and offer an overview of the digitization progress, and hereby incentivize for an interconnected digitization of EU (Ministry of Economic Affairs and Communications, 2017). Their unique ways of conducting an e-government could be the appealing factor for the rest of EU to make Estonia a more noticeable actor in a new digitized society. If Estonia's ways of leading a digital society becomes the prevailing norm within the EU, their political power could be argued to increase as followed, because Estonia thus possess the know-how to conduct everyday life in the future. The next section will describe a specific proposal from the Estonian government to the EU, which is going to be our empirical material of analysis.

## Estonian Vision Paper on the Free Movement of Data - the Fifth Freedom of the European Union

Estonia has developed a vision paper called *Estonian Vision Paper on the Free Movement of Data - the Fifth Freedom of the European Union*. This paper presents the vision of Estonia to exchange data across borders, namely within the EU by implementing the OOP. The OOP is a principle that Estonia has been using on a national legislation scale since 2007 and basically means that "...a company or a citizen supplies to the government any data only once and this data is then re-used within the government's base registries when adequate safeguards (e.g. for the protection of personal data via legally rooted "need-to-know" access rights or personal consent) have been applied." (Ministry of Economic Affairs and Communications, 2017, p. 16).

The overall objective of this vision is to make Europe the hub where digital innovation is of first priority, to benefit citizens in the EU by reducing bureaucratic costs and enabling cross-border business and movement (Ministry of Economic Affairs and Communications, 2017, p. 10). The vision paper emphasizes that the economic gain of data-flows in 2014 exceeded the value of global trade in goods and that this is a market that the EU could gain entry to in order to take share in this economic value. Not only does the paper point to the

potential profit, but also the many billions of Euros the EU could be saving in bureaucratic costs between 2015 and 2020 (Ministry of Economic Affairs and Communications, 2017, pp. 10-11).

What this paper presents is the vision of citizens and businesses submitting their information once and from that moment give the public authorities the right to share that information with other states in the EU. Through OOP it would become possible to gain access to any citizen's personal, as well as non-personal, information from any given country in the EU. It is emphasized in the paper that the government authorities of the country one lives in, already have the data that is needed for a required decision, such as identifying whether a person is eligible for benefits, but that the specific authority may not necessarily possess the data and therefore must request it first, to be able to make a decision regarding the individual (Ministry of Economic Affairs and Communications, 2017, p. 11). The argument is then, that it should make the data sharing more streamlined and efficient. This may seem attractive to begin with and it is hard to argue against the apparent upsides of OOP when considering the supposed efficiency in the implementation of such a system, but along with this seemingly positive measure this paper will argue that several problematics adhering to power, societal development and agency become apparent. It is important to note that Estonia has established themselves as one of the forerunners of the implementation of BT on a national scale and that it is this technology that has been an important factor in pushing forward OOP since BT presents with it optimized data security and transparency, which are somewhat preferable, though not necessary, if OOP is to become adopted and embraced by citizens and businesses alike. This is also indicated and affirmed in a report from GNKS Consult who, on behalf of the European Commission, carried out a study about EU-wide digital OOP:

Another transformative measure replaces concentrated control of and liability for data repositories and processing with innovative alternatives based on so-called Blockchain models, in which data are maintained as a public resource that anyone can modify but only with the consent of everyone. This provides substantial advantages in terms of accuracy and acceptability; technical means are employed to remove the need for asymmetric and potentially risky trust and authority structures – no more single point of failure. This algorithm-based service is currently attracting a lot of attention and is already disrupting traditional financial service models. It is

worthwhile considering in the OOP context, especially in cross-border situations where such ‘trustless’ structures may be an attractive alternative to complicated legal and organisational arrangements. (GNKS Consult, 2017, p. 21).

The report affirms the notion that OOP is closely linked with the emergence of this new technology that is characterized by a very high degree of security and transparency as they explain themselves: “With KSI Blockchain deployed in Estonian government networks, history cannot be rewritten by anybody and the authenticity of the electronic data can be mathematically proven. It means that no-one – not hackers, not system administrators, and not even government itself – can manipulate the data and get away with that” and Estonia, who has implemented BT as the first nation in the world on a national level, is “one of the most recognized and valued international cyber security experts” (“KSI Blockchain — e-Estonia”, 2017). In order to understand the importance of this new technology and what it entails we will give a short introduction to the technology itself.

## Blockchain - A Distributed System

Because of the early stage that the BT is currently in, not having set its roots in a way that gives people in general a deeper sense and understanding of what it entails, it can be complex to grasp. However, this paper is not a study of the technology itself, but rather a study of its current implications as a technology being used in Estonia who are pushing for OOP, and it is convenient to introduce shortly what the technological characteristics are so one can gain a better understanding of its relevance.

One needs only look back at the emergence of the internet in the 1990s and how little was known about systems of wireless data sharing, servers communicating through satellites and the simple miracle of sending an email across Earth in a split second, to get a sense of how a new technology whose potentials were so far-reaching it made it hard to really understand it. The internet is now integrated in our everyday lives to such an extent that it may be hard to imagine how we in Western societies we would be able to function without it and we have grown used to it with a more clear understanding of its capabilities. Experts say that the BT’s current stage is comparable to the first email systems that emerged in the 1990s (Tinworth, 2017).

It is therefore important to point out its “ambiguity”: it is still a young technology and it can still go in many different directions. The experimenting has only just begun. It is therefore also important to point out the very essential features of BT and briefly present its potentials as well as limitations.

In order to understand BT properly it is necessary to first understand what is called *distributed systems*. A distributed system is a “computing paradigm whereby two or more nodes work with each other in a coordinated fashion in order to achieve a common outcome and it's modeled in such a way that end users see it as a single logical platform” (Bashir, 2017, p. 10). The BT is a distributed system where the aforementioned nodes constitute the devices, such as your computer, that are a part of the blockchain and work together in a coordinated fashion. The decentralization is a core concept and benefit of blockchain since no intermediary third party, is needed for the validation of transactions. Here is instead a consensus mechanism which is used to agree on the validity of transactions.

The term blockchain was introduced by Satoshi Nakamoto's in his white paper<sup>2</sup> and it was initially described as *chain of blocks* but evolved over the years to become *blockchain* (Bashir, 2017, p. 9). The paper described his development of a peer-to-peer electronic cash system known as *bitcoin*, and this invention was the beginning of the blockchain system. Bashir lay out some different definitions of blockchain that are useful for a basic understanding:

- Blockchain is a decentralized consensus mechanism. In a blockchain, all peers eventually come to an agreement regarding the state of a transaction.
- Blockchain is a distributed shared ledger. Blockchain can be considered a shared ledger of transactions. The transactions are ordered and grouped into blocks. Currently, the real-world model is based on private databases that each organization maintains whereas the distributed ledger can serve as a single source of truth for all member organizations that are using the blockchain (Bashir, 2017, p. 18).

There are many intricate technicalities behind the BT and some are important to understand if one wants to truly understand in a technical sense what makes BT so disruptive and important

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<sup>2</sup>an informational document issued by a company to promote or highlight the features of a solution, product or service” (Whitepaper, n.d.)

for digitization, transparency and security, but many of these specifics are beyond the scope of this paper. The most important thing to know in terms of how BT works is, as the Estonian government describe themselves: “A blockchain is a distributed public ledger – a database with a set of pre-defined rules for how the ledger is appended by the distributed consensus of the participants in the system. Due to its widely witnessed property, blockchain technology makes it also impossible to change the data already on the blockchain” (“KSI Blockchain — e-Estonia”, 2017). Figure 1 below shows how the blockchain works:

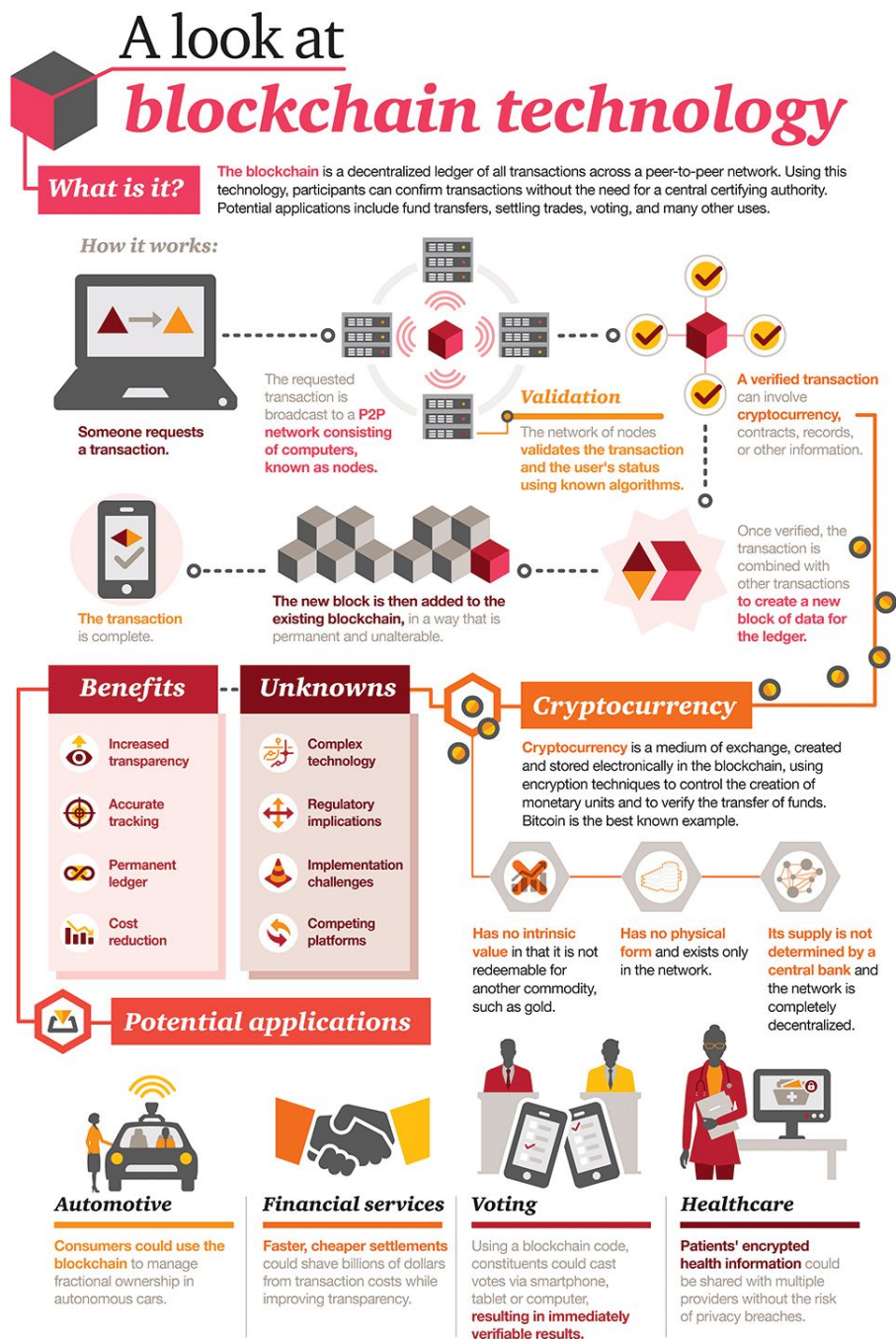


Figure 1.

# Methodology

If we are to understand the OOP digitisation-push and ways in which this can influence a given society, such as Estonia, we need to frame the most essential moving parts in this process. Daniel R. McCarthy's synthesis of instrumentalist/essentialist theories on digital technology i.e Social Construction Of Technology (SCOT) provides us with an appropriate structure to frame the connection between the instrumentalist perspectives on power dynamics and the essentialist idea of social acceleration.

We will attempt to make a synthesis of Foucault's notions of power dynamics and Hartmut Rosa's theory of social acceleration in order to explain the link between certain societal dynamics regarding how technology accelerates social change which in turn accelerates the 'pace of life' and how this acceleration play into instrumentalization of Information and Communication Technologies (ICTs), dominant public norms and values, self-policing surveillance schemes and a normalisation of judgement.

In overview we will look at Estonia's precursor as a precursor for future digitisation of nationstates and we will use an understanding of power dynamics to explain the ways in which the digital landscape might be shaped by various agendas and finally explain how these influences of power might be utilising the social acceleration tendency of technologically accelerating nations. In order to grasp ICT's in a proper contemporary context of power and acceleration, it is necessary to introduce the theory and approaches outlined by Daniel R. McCarthy.

## Instrumentalism, Essentialism, and Social Construction of Technology

We have chosen Daniel R. McCarthy's work as the basic foundational approach to comprehend the OOP push from its multi-theoretical and multi-conceptual approach. We have chosen to use his book as a tool to understand the digital concepts we are investigating

and to put these into play with the chosen main theories by Michel Foucault and Hartmut Rosa. We will furthermore also refer to the theorists that McCarthy draws upon in his work the same way we use these theorists for the sake of clarifying this paper's arguments. These theorists are James Der Derian who is Director of the Centre for International Security Studies and professor at Sydney University ("Professor James Der Derian - The University of Sydney", 2017), Geoffrey Herrera who is a Fletcher Jones Associate Professor of Political Studies at Pitzer college ("Geoffrey Herrera", 2017), Dr. Laura DeNardis who is Adjunct Senior Research Scholar in the Faculty of International and Public Affairs at Columbia University ("Biography", 2017), Thomas Hughes; Professor of the History and Sociology of Science ("Thomas Parke Hughes", 2017).

This section will outline the theories that McCarthy presents in his book *Power, Information Technology and International Relations Theory: The Power and Politics of US Foreign Policy and Internet* (McCarthy, 2015). The approaches we will present are: Instrumentalism, essentialism and within the scope of essentialism; techno-optimism and techno-pessimism. This will be the foundation of McCarthy's theories. When instrumentalism and essentialism has been presented we will show the synthesis of these theories, namely Social Construction of Technology (SCOT (McCarthy, 2015)). In McCarthy's text he takes both an instrumentalist and an essentialist viewpoint in his arguments in regards to how the interplay between technology and users influence the social world. It is important to understand the various approaches in order to grasp how technologies, specifically ICTs, interplay in contemporary societies.

## Technological Instrumentalism

The instrumentalist approach argues for technology as an instrument that is neutral in its creation. A given technology may have a certain purpose such as being a weapon, but the weapon in itself will not be able to kill someone. It is the user that maintains control and agency to effect the outcome by using the technology (McCarthy, 2015, pp. 22-26). "In the instrumentalist understanding, weapons are not biased towards offensive or defensive purposes" (McCarthy, 2015: 21). From an instrumentalist point-of-view, the technology does



not have any control of the outcome while the agent produces the end. Another example to clarify this;

This account of information technology thereby remains instrumentalist by asserting that technology does not cause social change. Information technology alters the context in which – to use the classical denotation of behaviourist power analyses – ‘ A has power over B to the extent that he [sic] can get B to do something B would not otherwise do (McCarthy, 2015: 25).

A recognizable instrumentalist saying is present in gun debates: “Guns don’t kill people, people kill people” (Bastek, 2016), maintain the idea that an instrument in itself is autonomous.

The next section presented theoretical groundwork for an essentialist theoretical perspective that opposes the instrumental framework.

## Technological Essentialist

The technological essentialist point-of-view claim technologies have previously defined biases embedded in the design of the technology. The embedded bias in the technology can have influence on social and political outcomes. Opposed to the instrumentalist argument, where the agent controls the outcome - technological essentialism argues, that technology or the non-human object in itself can affect the outcome, and social actors are not free to use technology as they wish, due to the technology’s embedded bias and this may lead to social change (McCarthy, 2015: 29).

To understand the technological essentialist point-of-view it is important to understand *techno-optimism* and *techno-pessimism*, which are the two standpoints within technological essentialism that highlight an critical emphasis in regards to the technological essentialist theory.

## Techno-optimist

McCarthy form two points of critique to the theoretical foundation of technological essentialism: The techno-optimist and the techno-pessimist (McCarthy, 2015: 29). In the optimistic adaptation of new technologies, technology has been viewed as a means to achieve optimal performance and acquiring goals that humans were not able to do without emerging technologies. Information technology has cancelled out time and distance, allowing people to communicate across time zones and geographical destinations. The techno-optimist would argue the opportunity that ICT's have posed in allowing the user to go against the Orwellian nightmare of Big Brother surveillance society, and acquire a new level of freedom, where the user is not suppressed by a totalitarian surveillance structure, but instead the user has the technological abilities to track the network promoting; human freedom and democracy (McCarthy, 2015: 29-30). McCarthy argues that it has become more complicated to be a techno-optimist due to apparent cases of internet filtering and surveillance regimes (McCarthy, 2015: 30).

## Techno-pessimist

As the techno-optimist seem to be straightforward in its approach in praising emerging technology that offer greater; flexibility, mobility and democratic processes.

The techno-pessimist approach seem to highlight important embedded problems of new emerging technologies.

The techno-pessimist puts great emphasis on the aspect that technology can be used as a power of domination - the phrase 'power-over' (McCarthy, 2015, p. 31).

Moreover, the techno-pessimist outlook stresses that speed is a contributing factor in the emergence of technology. A clear critique of ICT's has to be surveillance, panoptical and self-policing society which many theorists and authors have argued that technology might bring along with its embedded appearance in common households (McCarthy, 2015, p. 30).

Der Derian (Professor James Der Derian - The University of Sydney. (2017), questions the connectedness of society or rather the fractured image, users of ICT's perceive as reality

(McCarthy, 2015, p. 31). Derian brings forth the notions; speed, virtuality and simulation, which might distort the representations through the frame of ICT's - this leading to people acquiring a reduced ability to interpret between false and real events (ibid.). These representations that users encounter end up being pre-wrapped specifically framed through the Military-Industrial-Media-Entertainment Network (MIME) (ibid.). The problem with the MIME representations is the viewer has no other input of global news than those composed through the MIME network, which distort the viewers perceived world of 'false reality' and 'authentic reality' (ibid.). Derian explains it through this quote:

the closer technology and scientific discourse bring us to the "other" – that is, the more that the model is congruent with reality, the image resembles the object, the medium becomes the message – the less we see of ourselves in the other (Der Derian, 1990, p. 298; McCarthy, 2015, p. 31)

The inherent problem with the MIME representations of the world is that the user end in a state where they misinterpret the false version as reality through the frame and fractured representations (ibid.). To put in other words, the user misinterprets the 'presented map for the actual territory'. It is in this example that the notion of speed takes its toll on the user, as the flow of media is overwhelming and the ability to interpret the presented events as either true or false, becomes minimized due to the MIME networks ability to imitate the falsely representations as authentic images of reality. This may lead way for anti-diplomacy as reality gets distorted (McCarthy, 2015, pp. 30-32). ICTs challenge the authority of knowledge, what and who are to be trusted, when MIME networks frame the representation through the ICTs with a framed subjectivity (ibid.).

We have chosen to present McCarthy's reading of Der Derian to underline the the claim that technology do have the ability to affect social outcomes. McCarthy argues by using Der Derian, that multi-media has escalated to a degree that has gone out of hand. Derian states that; 'The internet produced the world wide web' and that technology in itself carry agency that cause social outcomes (Der Derian, 1992, p. 2; 2003, p. 442; McCarthy, 2015, p. 31). Due to the escalation of the internet, multi-media and ICT's - state sovereignty is being challenged by the flows of information (McCarthy, 2015, p. 32). The essentialist approach

lean toward a structuralist notion that human agency is not inherently present in ICT's and have a more deterministic comprehension of technology than the instrumentalist (ibid.). Humans may be the producers of ICTs, but in the essentialist understanding ICT's do carry a degree of agency that can not be controlled by humans (McCarthy, 2015, p. 32).

To sum up the above mentioned notions in a simplified manner, they form a theoretical framework of dichotomies. The dichotomy of instrumentalism and essentialism being the distinction between placement of agency: either humans have agency or technology does, there is no inbetween. Within the notion of essentialism exists the dichotomy of techno-optimism and techno-pessimism. As the terms imply, the difference between the two, being whether technology is viewed as a positive or negative influence in society (McCarthy, 2015). However, McCarthy finds these dichotomies as an insufficient framework when dealing with the field of ICT's, because of their deterministic nature (McCarthy, 2015, p. 32). McCarthy's solution to this dichotomy dilemma will be presented in the following section.

## Social Construction of Technology (SCOT), Momentum and Power

SCOT is the middle ground between the instrumentalist; ICTs as neutral, and the essentialist; ICTs possessing agency, perspectives of grasping ICTs social constructivist capacities. SCOT is the mix between instrumentalism and essentialism and we need to keep the two different approaches intentions in mind: with instrumentalism the notion that technology still is a technology meaning that there are deterministic factors, and that there in essentialism is a degree of human agency embedded in the designing and development process of ICT's (McCarthy, 2015).

Two aspects we need to pay attention to is; 'momentum' a term from technological historian Thomas Hughes - that the designing process of technological objects can be seen as a form of power in global politics which we will elaborate on in the end of the theoretical clarification chapter. And secondly create a greater foundation on the conceptualizations of power, political economy and the state (McCarthy, 2015, p. 33).

McCarthy argues that technology is produced in a non-linear manner, and that which direction a technology evolves depends on political influences, and the way technologies end

up being produced then shape the social world (McCarthy, 2015, p. 33). The designing process is vital as the technologies progress or decrease certain social actions in the social world as ICT's such like Facebook and twitter may have a influence on. McCarthy bring forth Herrera notes: "The result is that technological objects 'close off certain kinds of social and political action and make other kinds possible'" (Herrera, 2006, p. 32; McCarthy, 2015, p. 34).

The SCOT attitude to ICT's is that the 'Code of law' carry a major influence on the outcome. As McCarthy notes by using DeNardis quote:

Although this architecture lies well beneath the level of content, it is not at all external to politics and culture. Infrastructure design and administration internalize the political and economic values that ultimately influence the extent of online freedom and innovation (DeNardis, 2012, p. 721; McCarthy, 2015, p. 34).

McCarthy notes that the Teleology is central is an arguable point when discussing the validity of the SCOT approach. The effects that ICTs have on human users are partly derived from the construction and designing process, in this respect ICTs can be viewed as a social institution (McCarthy, 2015, p. 34).

Another dimension to the SCOT approach is the notion of the material limits of the instrumentalism meaning that technology is still based on the principle of materiality.

No technology is truly autonomous; they are all partly social. Yet neither are the political meanings of technology infinitely malleable. The two do, however, complement each other nicely. Technology as used here is simultaneously a social and a technical product (Herrera, 2006, p. 34; McCarthy, 2015, p. 34).

What McCarthy is aiming at is that technology may influence the social world but again the social world influences the technology that is being produced. When viewing these technologies we need to recognize the natural construction of technological objects and the facts that this does not reject realism - a pathway is being formed.

Momentum is the concept developed by Hughes and further elaborated on by Herrera and DeNardis, they conceptualized momentum as the progress of ‘speeding-up’ technological processes due to political incentives. Capitalism is not an inherent factor of this concept - but it seems to be dominating factor of the momentum conceptualized (McCarthy, 2015, p. 36). The concept of momentum is the acceleration of the technological development affected by political incentives (Herrera, 2006, pp. 27-30; McCarthy, 2015, pp. 35-41). The concept of momentum can be linked with the considerations of the underlying power relations and how political agendas can affect the progressing processes on said technologies. We will in the next section elaborate on the how we will use power in the analysis of Estonia’s OOP.

## Theoretical Framework

### Power

Power comes in many forms and is present within - and between - all social constructions, societal mechanism and governing agencies (Foucault, 1995). It has many definitions, many representations and the term itself is simply incomprehensive without delineating its substructures and conceiving the relational forces that works between actors and ideologies. Theories developed by the critical Marxist thinker, Michel Foucault, will be employed to understand which forms of power are present in the development and implementation of digitization advancements, more specifically the case of Estonian data policy agency as presented in Estonia’s Vision Paper and supplementary sources regarding that. In order to engage in such an analysis, it is necessary to recapitulate one of the most foundational ideas within the field of complex power structures.

As previously mentioned, power is often described as a possession of the ability to make another person, group or unit do something they wouldn’t want to do in the first place (McCarthy, 2015, p. 25). This is the simplest form of power that is visible and senseable in day-to-day lives. Foucault identifies the subtle power structures that are exercised between actors (Foucault, 1995).

## Michel Foucault

Power is most often not something that is acquired, but it is rather a broader spectrum of relations that constitute the possession of power (Foucault, 1984, p. 94). Michel Foucault argues that power is omnipresent and that the binary opposition between rulers and ruled is more complex (ibid). Power is present on all societal layers and functions between groups, classes, institutions and individuals. It is not a solid stratified top-down power structure and a higher level of abstraction is therefore needed, in order to understand how power is a crucial construction in history. Foucault is concerned with power in its relational form and how institutionalizations assorted individuals in larger hegemonic power structures (Foucault, 1995). He wrote about *how* power is operating rather than *why* it is operated (Daldal, 2014). The aim of the analysis is to use Foucault's understanding of disciplinary power conducted by means of surveillance to determine how Estonia's e-governance system using the OOP reproduce ruling power structures. In his book "Discipline & Punish: The Birth of the Prison" (Foucault, 1995) Foucault illustrates how surveillance and discipline enforce the power structure in a given society or institution. He addresses disciplinary apparatuses that constitute anonymous forms of power in which people become caught in the structural set of regulations – an artificial order that is defined by a set of rules (Foucault, 1995). Hospitals, prisons and schools are all in this text presented as disciplinary apparatuses that observe, examine and normalize subjects and thus homogenizes the observed. It is a historical account on how the emergence of state institutions has followed a development of increased surveillance and thereby means of control. The individual becomes a case. The individual is distanced from its own uniqueness by being compared to other individuals and the very same individual is trained, normalized and adjusted to fit the hegemonic order. The very essence of the text is outlining how state apparatuses establish hierarchal observations, self-policing and normalize judgement and thereby form a fixed discipline that is in the interest of the state hegemony. This discipline "*makes*" individuals; it is the specific technique of a power that regards individuals both as objects and as instruments of its exercise" (Foucault, 1995). Foucault's notions of 'discipline' and the relations between the mechanisms that constitute that, is important to understand as an offset to the contemporary means of power reproduction that is seen in current ICT developments. The theory on how power is exercised through

individual bodies will be exerted to an analysis of the emergence and spreading of Estonia's OOP, and the expanding visions of data-sharing across borders. Foucault's theory on correct training functions as a fundamental understanding of power in a broader context of technological power relations and the instrumentalization of individuals. With an under we will proceed to an analysis of the social acceleration (Rosa, 2003) that is found in the implementation of OOP and digitization of public administration. In order to cohere Michel Foucault's conceptions of power and Hartmut Rosa's approach to acceleration, we consider it necessary to give an account of hegemony.

## Hegemony

Antonio Gramsci's notion of hegemony deals with the interrelationship between leading elements in society and how power is passively accepted through norms present in lived worlds (Hall, 1986). We do not intend to use Gramsci's texts in our analysis, but we believe that it is important to state our own interpretation of hegemony as this term will be widely used in the analysis. Thus, we refer to hegemony as a form of power that constitute and represent the "norm" in society. There are several discourses consisting of bourgeoisie ideologies, values and norms which dominates subordinate classes to accept these as "normal" (Daldal, 2014). Hegemony is present in the sub-consciousness of subjects and co-constructs the order of state-apparatuses and citizens. Hegemony is present in all forms of power as it functions as a normalized discourse that is held by the dominant actor. That actor appears in many forms; state; nation; culture; social class; etc. Hegemonic order is thus held by many actors, voluntarily as well as involuntarily, according to which context the subject is placed in (Gramsci, 1926, p. 3-5).

Hegemony, being everlasting present and reproduced through actions, is a determining factor in political decisions, cultural norms and ideological choices in developments of technologies. This is our understanding of hegemony and it is therefore crucial to an analysis of technological development because the hegemonic order, and the dominant ideology present in the social context, is not passive in this process (McCarthy, 2015). In the same way technology structure our social worlds, we structure technology with our social worlds as



well. Thus, the hegemonic order that is present at the time of development is important to understand in order to grasp how and why certain choices have been taken in the process.

An analysis of Estonia's digital governance, and the spread of digitization and OOP to Europe, will be conducted by using Foucault's notions of subtle power and correct training. This will give an understanding of how power functions within micro- and macro-structures. We will then investigate how these developments have come about, and furthermore what social implications they might have in contemporary - and future - societies. Therefore, the analysis will be conducted using Hartmut Rosa's theory of social acceleration.

## Social Acceleration

Hartmut Rosa questions the rapidly evolving phase of the late-modern society (Rosa, 2003, pp. 3-5). He structures his argument by viewing the acceleration of society, or as he refers to *social acceleration*. Rosa views this speed-up of pace in relation to the model 'The Process of modernization' which refers to four factors that influence the perceived society; Structure, Culture, Personality and Stance to Nature (ibid.). Rosa argues that these four factors are necessary when attempting to grasp emerging processes of society and addressed the need for an in-depth analysis of the social acceleration dynamics of society (ibid.).

## Technological acceleration

The speeding up of what Rosa calls the intentional goal-directed processes of transportation, communication and production is what defines technological acceleration, which is the most measurable form of acceleration and refers to changes in technological advancement (Rosa, 2003, p. 6). These technological advancements offer a dramatic change in the social reality as the concept of time may seem to be conceived as shrinking or as eradicating the general public's relation to space, and in the current of globalisation and the emergence of the internet, our sense of space contracts and development is no longer rooted in localities with the loss of history, identity and relation in the process (Rosa, 2003, pp. 6-7).

What Rosa is also putting forward is the fact that social acceleration most often evolves in waves and that these waves often are ushered in by technology or socio-economic

organization (Rosa, 2003, p. 3), and that is evident when looking at the very development taking place in Estonia, where a wave of advancements in the digitization is evolving, and from there spreading to the EU through the initiatives presented in the vision paper that Estonia has presented in 2017 (Ministry of Economic Affairs and Communications, 2017). In the spirit of the ideas presented above by Rosa, we can observe how the emergence of BT and the OOP is already congruent with these ideas about acceleration in society, in that BT is a new technology that is pushed forward by the ever-increasing demands of efficiency, cost-saving or profit-seeking clearly emphasized in the Estonia Vision Paper: “Online public services are crucial for reducing business costs and increasing the efficiency and the quality of the services provided to citizens and companies (Ministry of Economic Affairs and Communications, 2017, pp.18-19).

The technological acceleration observed in Estonia constitutes the emergence of a new wave that will, according to Rosa, inevitably bring about acceleration in the two other spheres of social acceleration (Rosa, 2003, p. 10).

## Acceleration of Social Change

The acceleration of social change is interested in the social aspects, influenced by the acceleration, compared to the technological changes of acceleration that deals with advancement in technology (Rosa, 2003, pp. 7-8). The social change investigates how people and the construction of social encounters change in society. The social structure, constellations, institutions as well as patterns and actions have changed to a dynamic movement (ibid.). Everything from fashion, lifestyles, social relations and obligations but also groups, classes, social language, habits and practices are said to change at an increased rate (ibid.). The dynamics of the social society seem to be ever changing - “the underlying idea is that the rate of change themselves are changing” (Rosa, 2003, p. 7).

Social acceleration shows itself in relation to family and work (Rosa, 2003, p. 8). In classic modernity one would learn a working trade through a parent, then it changed to people being able to choose their own profession and now it has changed in the late modernity to people changing job at a higher rate (ibid.). The same can be said of the structure of families and

traditional values where family structures seemed to last for a life-span, whereas in late modernity we see an increase in divorce rates and remarriage (ibid.). This is what Rosa refers to as a switch in cultural attitude from an inter-generational to an intra-generational pace in late-modernity (ibid.) meaning we are going to see an acceleration of intra-generational effect - subsequently leading to an even higher increase in the general social acceleration.

Interestingly, there is a third type of acceleration in Western societies that is neither logically nor causally entailed by the first two, but rather seems, at least at first glance, paradoxical with respect to technological acceleration (Rosa, 2003, p. 8).

## Acceleration of Pace of Life

This third somewhat paradoxical acceleration is that of the pace of life (Rosa, 2003, p. 9). With the invention and widespread implementation of transportation, communication and digitization technologies such as trains, computers, cell phones etc. one would expect time to be increasingly abundant, much the opposite seems to be the case (ibid.). Therefore like Rosa puts it: “If, to the contrary, time becomes more and more scarce, this is a paradoxical effect that calls for a sociological explanation.” (ibid.).

Rosa divides the investigation of the acceleration of the pace of life into the subjective and the objective approach (ibid.). The subjective approach would entail using subjective observations of citizens to ascertain whether a feeling of time being scarce or sped up would be measured or reported in a higher degree than previous (Rosa, 2003). “As we might expect, recent studies indicate that in fact people in Western societies do feel under heavy time-pressure and they do complain about the scarcity of time.” (Rosa, 2003, p. 9). This tendency seems to have appeared in the last decade pointing towards the digital revolution having played a part in the phenomenon (Rosa, 2003). From an objective approach we can look at the acceleration of ‘the speed of life’ in two ways (ibid.). Firstly, we can look at actions such as sleeping, eating, playing, walking, spending time with family etc. as having gotten more condensed, as the assumption should be that these activities should take up less time in the life of a busier individual (ibid.). There appears to be plenty of evidence to

suggest that we indeed spend less time with our families, eat faster and sleep less than our ancestors did (Rosa, 2003, p. 10), but we need to be careful with this data as there for one; is very limited amounts of study on longitudinal instances of time-use and second; there are contradictions within the data which suggest for example that, even though the time westerners spend with their families in today's society has decreased, fathers spend much more time with their families than previous generations and thirdly; it is generally difficult ascertaining what drives any given acceleration in the first place (ibid.). The second way of objectively measuring acceleration of the pace of life is by looking at the tendency to do more with one's time (ibid.). In other words, attempts at multitasking such as talking on the phone whilst surfing the web, listening to podcasts while sitting on the toilet or attempting to reduce the intervals in between any given activity in order to save time (Rosa, 2003). Tendencies such as the latter are seen in the Vision Paper (Ministry of Economic Affairs and Communication, 2017) and supplementary empirical material, and we will use these to measure the acceleration of pace of life.

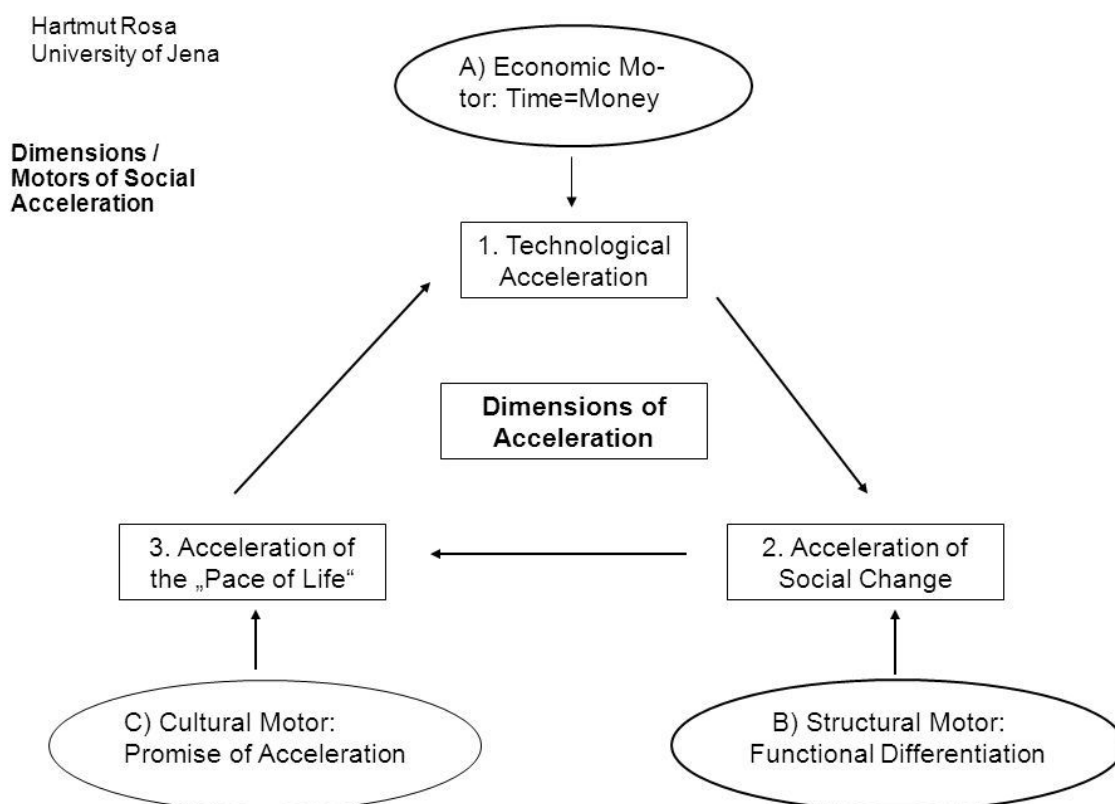
## The feedback loop

Finally, Rosa concludes that these three accelerations are intertwined (Rosa, 2003, pp. 10-11). In the dilemma of scarcity of time and increasing 'pace of life', technological acceleration can be viewed as the answer (ibid.). These three key components to the social acceleration apparatus, perpetuates a feedback loop. Technological advancements bring about waves of technological acceleration such as railways, internet and ICT's which in their emergence create a new wave of change in social practices such as increased mobility and communication structures (ibid.). The emergence of the internet and ICT's brought forth a change in heightened communication networks, the virtualization of economic and productive processes which lead the way for occupational, economic and communicative structures creating new spaces for social interaction and social identities (ibid.). So, we can see that the increase in technological acceleration promotes a change in social structures and patterns.

The same goes for standing still as an individual in social acceleration in which one falls behind and the subject becomes outdated (ibid.). This quote emphasizes the rapid increase in the structural world the force a heightened pace of life:

This makes great sense if we look at the ‘slippery slope’ phenomenon embedded in capitalist theory, in which “the capitalist cannot pause and rest, stop the race and secure his position, since he either goes up or goes down; there is no point of equilibrium since *standing still* is equivalent to *falling behind*” (McCarthy, 2015, p. 11).

This leads to an exceeding pressure to keep up the pace and stick to the current speed that is inherent in the social and technological world spheres, as social acceleration increases it becomes harder to comprehend which choices are valuable to make, leading to just wanting to keep up with the pace and inevitably leading to an acceleration in the ‘pace of life’ (ibid.). So the feedback loop seems to be apparent as the increase in ‘pace of life’ will call for advancement in technological acceleration which, again, leads to a self-perpetuation process (ibid.).



As seen in the figure above, Rosa describes how social acceleration is driven and are interconnected with the three dimensions of acceleration which he calls motors (Rosa, 2003, p. 11). These are the sources of the three abovementioned types of acceleration. One of the sources of social acceleration is capitalism, which is the economic motor, the motor that drives technological acceleration. One other source of social acceleration is the dominant cultural ideals of modernity which drive the “pace of life” (Rosa, 2003, pp. 10-14). The structural motor’s source is found in the social structure of modern society which drives the acceleration of social change. The three motors of acceleration is important as we will be able to use this in analysis of the push of the OOP and the social acceleration tendencies. But first we will introduce the three motors.

## The Economic Motor

Since labor time is a factor of production, saving time becomes equivalent to making profit in a capitalist economy and competition in the market calls for competitors to strive for ‘time leads’ meaning being the one introducing new technologies that competitors have not been able to produce yet (Rosa, 2003, p. 11). Being the frontrunner within technological development causes the constant acceleration in the circle of production, distribution and consumption and explains why technological acceleration takes place in capitalist societies. This is the reason many authors have pointed to capitalism as the sole contributor to, not only the technological acceleration, but all acceleration (Rosa, 2003, p. 12). This nonetheless is a faulty stance since different acceleration phenomena in the other dimensions cannot be explained by competition and enforced capitalist acceleration, but rather with eudamonic and even eschatologically rooted notions which lead to the cultural motor (Rosa, 2003, p. 13).

## The Cultural Motor

The dominant cultural ideals of modernity are linked to the acceleration of social change and are rooted in the ideal of the good life being a fulfilled life, meaning a life filled with experiences and developed capacities (Rosa, 2003, p. 13). Where we used to think of a fulfilled life as one where we strived to achieve a ‘higher life’ after leaving this earth, we

have shifted to thinking of a fulfilled life as one where we realize as many options as possible that the world offers us as modern human beings (ibid.). This poses a problem since the world always seems to offer more opportunities than we can actually realize and the perceived time of the world diverges dramatically from the time of your own individual life (ibid.). That notion is what Rosa refers to as the acceleration of “pace of life”, since it urges us to pursue the thought that if we can live twice as fast we can double the realization of options the world offers us. As Rosa points out, a multiplicity of lives could be lived within a single lifetime if the speed of life increases and, leading to acceleration as a strategy to erase the difference between the time of our own individual lives and the time of the world, and this leads to the eudaimonistic notions as he puts it:

The eudaimonistic promise of modern acceleration thus appears to be a functional equivalent to religious ideas of eternity or ‘eternal life,’ and the acceleration of ‘the pace of life’ represents the modern answer to the problem of finitude and death (Rosa, 2003, p.13).

He goes on to argue that, unfortunately, this promise is never fulfilled since the number of options increases at an exponential rate due to the same techniques and inventions that brought forth the accelerated realization of options and the self-propelling dynamic of the cycle of acceleration thus continues.

## The Structural Motor

The social structure is a third engine in modern Western acceleration, which springs from the fact that society is structured along the lines of “functional ‘systems’, like politics, science, art, the economy, law, etc....” and this structure dramatically increases complexity (Rosa, 2003, p. 14). This view posits that modern society’s basic structural principle of *functional differentiation* is accelerating social change and that results in almost unlimited contingency where society experiences time “in the form of perpetual change and acceleration” (Rosa, 2003, p.14).

From this increase in complexity and contingency comes large amounts of possibilities and options that cannot be handled at the same time (ibid.). So, complexities in modern societies are ‘temporalized’ such that the sequential processing of more options to be processed at the same time can be enabled (Luhmann, 1977; Rosa, 2003, p. 2014). But this processing needs to be accelerated as well in order to satisfy the need for synchronization and selection of increasing options.

We have presented the Estonian and European push for digital data-sharing and OOP implementation. We will approach these concepts with help from McCarthy’s understanding of ICTs and conduct an analysis positioned from the conceptions of Michel Foucault and Hartmut Rosa.

## Power Analysis

### The Presence of Power in the Once-Only Principle (OOP)

As stated throughout the paper, the Estonian OOP is a product of the Estonian state’s push for advancing their economy and public administration by collecting, organising and managing data from its citizens. So, Estonia is a state where the government possesses personal and non-personal information of its individual citizens and businesses. Though the topic of the case we are delving into is within the realm of digital technology, it is utterly relevant for a historical comparison, in a Western history context.

#### OOP - A State-Apparatus

Throughout history, records of information have been kept and managed and data has been gathered and processed as Foucault deftly describes by referring to the history of hospitals in France:

The hospitals of the eighteenth century, in particular, were great laboratories for scriptuary and documentary methods. The keeping of registers, their specification, the modes of transcription from one to the other, their circulation during visits, their



comparison during regular meetings of doctors and administrators, the transmission of their data to centralizing bodies (...) a hospital, a town and even of the nation as a whole formed an integral part of the process by which hospitals were subjected to the disciplinary regime. (Foucault, 1995, p. 190).

The Estonian data-sharing OOP is a highly advanced and developed apparatus in the same category as hospitals, that are regulatory mechanisms that a) register and observe the individual b) operate in a larger political power regime c) that is controlled by state and thus regulate disciplinary measurements in the interest of the state (Foucault, 1995).

Besides the hospital, Foucault explains the concept of surveillance, training, control and discipline with observations from the military camp, presented as an ideal model: “In the perfect camp, all power would be exercised solely through exact observation; each gaze would form a part of the overall functioning of power.” (Foucault, 1995, pp. 171-172).

OOP can be argued to be an extension of what Foucault describes when observing military schools and these schools’ buildings and the architecture behind them as mechanisms for training. The very idea behind the architecture is to:

permit an internal, articulated and detailed control - to render visible those who are Inside it; in more general terms, an architecture that would operate to transform individuals: to act on those it shelters, to provide a hold on their conduct, to carry the effects of power right to them, to make it possible to know them, to alter them. (Foucault, 1995, p. 172).

The very idea behind the shaping of the structures and environment that individuals are placed in is to exercise control and that, very clearly, connects with surveillance. In that sense the advent of OOP, which is one where individuals’ information is stored, “public administrations should ensure that citizens and businesses supply the same information only once to a public administration. Public administration offices take action if permitted to internally re-use this data, in due respect of data protection rules, so that no additional burden falls on citizens and businesses.”, the potential of surveillance is greatly enhanced and thus continues the control and power exercised on the individual, ie. the citizens, that Foucault addressed, albeit in a new form introduced by the advent of this new technology.

## Control of Individuals

Through OOP, individuals are measured and observed within the structure of the ideological hegemony, liberalism, which is defined by dominant culture and political regimes. This is evident in the vision paper, which describes the OOP implications from Estonia's point of view:

This gives great room for freedom of contract. Freedom of contract is the general principle that enables contracting parties agree to terms without government intervention...The once-only principle serves the end-users - citizens and businesses - who are, as a result, able to receive prompt, tailor-made and high quality digital services from public administrations, both in the originating country of the user and from other EU countries alike (Ministry of Economic Affairs and Communications, 2017).

This is an example of the individualization where people become individual objects and state-apparatuses (states or the regimes in power) gain more control and pursue hegemony on a national level. Individualization and control are, however, not the most crucial components of such mechanisms. Springing from these two components, we would argue, the most important forms of power are exercised, namely ideological and cultural hegemony through technology and state-apparatuses.

Through hierarchical observation and normalized judgement, individuals get induced and carried into the normalized hegemonic discourse. As Foucault argues, there is an omnipresence of power, which is prevailing from the political and ideological agenda (Foucault, 1995). Technologies are gradually becoming so complex, that when such systems of observations or surveillance are created, ideological and cultural agendas are inevitably ingrained into the process of design. Taking this into consideration, we would like to draw on McCarthy's notions of social construction of technology (SCOT) and the agency of both technology and actors in the process of design.

## Reproduction of Hegemony Through Technological Design

McCarthy claims that the development of technology is not an autonomous process, but rather a battlefield of debates and decisions of civilizational alternatives (McCarthy, 2015, p. 51). When technologies, in this case Estonia's ICT's, are created there is an inevitable presence of hegemonic discourse influencing the design process. McCarthy argues that

These discourses are also central to the definition of both what goals a technology will be designed to meet and to closing down the process of innovation. Conflicts over the meaning of technology are as central to how technology is created as structural power relations (McCarthy, 2015, p. 72).

It is thus the values and norms in Estonia's (and Europe's) hegemonic structural order that co-construct the form of the technology, hence ICTs. Taking a look at Estonia's OOP, it is evident that the key components surmount to *transparency, trust, economic growth* and *time efficiency* (GNKS Consult, 2017, pp. v-ix). And if one takes a look at the blockchain technology that underlies the OOP, the same values are present. These values or components reflect a certain norm in society, which is defined by the ruling classes who are the cultural hegemons (McCarthy, 2015). It is through MIMÉ channels that representations are framed and hence through those channels the cultural and ideological hegemony is constructed (McCarthy, 2015, p. 30-32). Yet, it is not only MIMÉ that influences the development and direction of ICTs – MIMÉ is influenced by the presence of social norms that accelerate according to interrelational processes in culture and society (McCarthy, 2015). This will be further elaborated upon in the second part of the analysis. Cultural hegemony is reproduced through media, institutions, society and state, and is omnipresent as a form of power (McCarthy, 2015 & Foucault, 1995). In the following section, an analysis of the norms that are represented in the motives of implementing OOP in the EU will be conducted from a Foucauldian stance in regards to structural power.

## Hegemony, Values and the Dominant Norm

Power, according to Foucault, functions as a productive form of power i.e. actively present in all bodies and exists not merely in a repressive form nor a passive one (Foucault, 1980). The motives for the implementation of OOP and an increased digitization of EU countries are based much on *time savings* and *economic growth* (Ministry of Economic Affairs and Communications, 2017; GNKS Consult, 2017). These motives spur on production advancements and represent a hegemonic cultural discourse that endorses technological progress and accelerates the value of time. Estonia, with its highly digitized society, holds a cultural norm which is embodied in both the subject, i.e. the citizens as well as the governing bodies such as state institutions. This power norm is a result of relational forces which maintain and produce through modes of production (Foucault, 1995). The ideology spoken of here, is represented in the European Commission's report of the 'Single Market Strategy':

Progress will be greatest within national borders, due to the high priority attached to burden reduction that can convincingly be linked to economic growth...The EU-wide implementation of OOP foreseen in this study stems directly from a main pillar of the Digital Single Market Strategy 5: "Maximising the growth potential of the digital economy," which calls for implementation of the Once-Only Principle within a new eGovernment Action Plan as well as a European free flow of data initiative and improvement of the European Interoperability Framework." (GNKS Consult, 2017, p. 221, p. 7).

What is being presented is a development that will reach the ultimate goal which is *economic growth*. The values in this example are in consent with the ones presented in the Estonian Vision Paper that suggests to "create new opportunities for citizens, and businesses that in turn translate into new jobs and sustainable growth for Europe" (Ministry of Economic Affairs and Communications, 2017, p. 21).

From these examples we would like to argue that the dominant values and objectives in Estonia's OOP, implied their cultural discourse, is ruled by a global and omnipresent form of

capitalist cultural hegemony. The purpose of OOP implementation is promoted as being that of saving time and creating growth (SCOOP4C ref). McCarthy argues that the values and norms that are linked to technological development are in the interest of dominant groups and that they are central to the maintenance of a capitalist society (McCarthy, 2015, p. 59, p. 66).

## A Hegemony in a Capitalist World Order

As this paper has addressed in the introduction chapter, the OOP was originally promoted as being for the betterment of Estonia's population, and the process of implementing this on a EU scale as for the betterment of cooperation amongst countries and increased living standards for all EU citizens. Yet, the decision-making processes have been highly influenced by the prevailing cultural and political hegemonic order and discourse of the West. Foucault points to the maintenance of this hegemony through production and force relations (Foucault, 1984, p. 143). Through production of state-apparatuses and regulated technological mechanisms – such as the 'once-only' principle – power is reproduced and rather unnoticeably embodied in citizens that are normalized from this process. As Thomas McCoy proposes in his reading of Foucault: "mechanisms in society produce these tactics through power relations, beginning with micro-relations and working circuitively through macro-relations." (McCoy, 1988, pp. 79-80).

It is thus Estonia that produces and maintains a cultural norm within the country that is utilizing digitization to maximize profit. This Estonian norm is produced and maintained by a larger global and ubiquitous norm whose presence is largely dominated by macro-relations – namely capitalism. The relational forces which constitute these norms exist within structural governing mechanisms as well as civil society and they are thus circularly reproduced (Foucault, 1995). In the following, the prevalence of digitization as a technological institutional power will be examined.

## The Power of Once-Only Principle

It is arguably in Estonia's interest to extend OOP implementations to the rest of Europe (as well as the rest of the World (SCOOP4C, 2017)), and promote digital governance as they have been the forerunner of OOP implementation and have unique know-how in regards to

OOP, which has proved to be both profitable for the economy and more efficient for Estonian governance (Ministry of Foreign Affairs and the Government Office, 2017). Not only is it this assumption that justifies Estonia's interest in spreading the digitization they have had success with, it is also in their interest as an actor in international power relations (McCarthy, 2015).

## Institutional Power

The European Commission's report lays out various outcomes of implementations of the OOP in European countries and suggest strategies for Single Market extensions. In one scenario, it is described how the OOP is ascribed a value:

Due to the favourable economic climate, cross-border services are likely to be associated with productive mobility [which] enhances acceptability for OOP-related measures; home and destination countries are likely to see clearly the net benefits of mobility, which will be viewed as a way to improve the 'match' between specific individual and business requirements and capabilities and the comparative advantages offered by different countries and thereby increasing the effective scope and competitive health of the Single Market (GNKS Consult, 2017, p. 220).

The technology itself is in this example being used as an object of power, and is furthermore maintaining the prevailing social and political hegemony of values. McCarthy suggests that ICTs can function as formal and informal institutions that mediate between forces, hence viewing the technology as a form of institutional power (McCarthy, 2015, p. 67). It can be said that the report is "selling" the idea of OOP to other countries by making it more attractive and also by suggesting how acceptability can be enhanced. In this sense, the OOP, which is running on BT, becomes an institution that is mediating between countries.

Although McCarthy's theory is in the realm of international relations theory and he refers to the mediation between nations, it can still be useful to apply when looking at forces of power on a micro-level, rather than on a macro-level. It is not the relationship between nations that are central to this analysis, but rather the struggle that is present in the interplay between actors. The motive of data-sharing is not merely driven by the goal of solving a problem, but

it is also driven by the goal of pushing through an ideological agenda. The eGovernment Action Plan clarify how they wish to modernize public administration in EU countries:

In order to move towards these policy priorities, a number of concrete actions are included in this Action Plan with the aim to contribute to the creation of business friendly cross-border public administrations and help the mobility of citizens (eGovernment Actionplan, 2016, p. 7).

The action plan is putting forth policies that, in addition to the OOP, have motives represented by a political agenda that promotes cross-border administrations (ibid.). This is an action that contains values and norms which are characterized by economic and geopolitical competition (McCarthy, 2015, 72).

The view [i.e. Estonia's vision of a digitized and connected Europe], however, is far different in Western European capitals, where politicians appear to see technology as preying on society rather than transforming it for the better, and where the opportunities of digital life and commerce are more than offset by fears of privacy violations, cyberattacks, terrorism, job attrition and tax evasion. The aspirations are focused less on innovation than regulation and taxation (Politico ref).

As it shows in the two abovementioned excerpts, there seems to be different approaches to OOP and digitization of cross-border data-sharing. As McCarthy argues, technology as a form of institutional power can function as a mediator between political discourses and:

These discourses are also central to the definition of both what goals a technology will be designed to meet and to closing down the process of innovation. Conflicts over the meaning of technology are as central to how technology is created as structural power relations (McCarthy, 2015, p.72).

We can see a tendency of clashing ideological hegemonies in the creation of certain technologies. The Estonian OOP is running on the blockchain and represent certain values such as transparency and accessibility. It can be discussed whether the OOP was created on

blockchain values, whether it was blockchain that gave idea to the OOP or whether it was a combination of both. What is interesting to look at is how the greater structural power relations and dominant ideological hegemony has impacted the development of the OOP and furthermore the blockchain technology. To do so, it is central to look at how the dominant values have developed in the first place. McCarthy argues “that historicizing the structural and cultural context of innovation is central to any account of technological development” (McCarthy, 2015, p. 51) and points to Andrew Freenberg’s theory that “*historicizes the technological innovation, notes the centrality of cultural norms and values*” (McCarthy, 2015, p. 54). We would therefore like to return to Foucault’s theory that is quintessential for this examination.

### Historicizing the Digitization of Europe

Foucault at his time pointed out, that the existing power structures, such as the government, educational institutions and other disciplining institutions, conducted measures to change the ways in which they could discipline and exert control by looking at the architectural and calculated advancements (Foucault, 1995). This paper argues that we are presently seeing the same measures being slowly but surely introduced with the implementation of OOP. Foucault wrote that:

The old simple schema of confinement and enclosure-thick walls, a heavy gate that prevents entering or leaving - began to be replaced by the calculation of openings, of filled and empty spaces, passages and transparencies (Foucault, 1995, p. 172).

This is a great reflection of how history can help us understand the development of digitized mechanisms that function as state-apparatuses, as previously discussed. We would like to make a historicization of the OOP values in a contemporary context with an example of the Estonian Vision Paper:

Free Movement of Data (...) promote data exchange between governments and its agencies for better decision-making, efficient supervision and transparency in the public sector” (Ministry of Economic Affairs and Communications, 2017, p. 6).



As Foucault points out, the presence of power in various mechanisms has always been present throughout history. He addressed the transformation of confinement from medieval times to present times and how the confinement has not disappeared, but merely becomes less prominent (Foucault, 1995, p. 172). In comparison to the OOP case, we argue that the difference between medieval walls and hospitals is no bigger than the difference between hospitals and OOP data-sharing. This is a result of prevailing values, discourses, economic motives and ideological hegemonies.

As we have argued in the analysis, the OOP principle and the digital data-sharing incentives in Europe contain subtle forms of power that place citizens in structures which train, surveil and normalize judgement. These same structures - state-apparatuses, regulated mechanisms - reproduce and maintain a cultural and ideological hegemony, both on a micro-level as well as on a macro-level. Foucault has helped us understand the case of Estonia's OOP and the digitization of Europe in a historical context which has revealed an encompassing capitalistic power structure which define the values and norms embedded in the design of ICTs. In the following section, we will engage in an analysis of the accelerations which are caused by, but also directly cause, the development and promotion of these ICTs.

## Social Acceleration Analysis

In this section we will continue our analysis of the OOP push, but in relation to how it can be understood as being caused by, but also reproduce, social acceleration. We will use McCarthy's theory SCOT to further explain ICTs influence on the social acceleration process through Rosa.

### Economic Motor

As we've previously presented, the theory of social acceleration can be split into three 'motors'; technological acceleration, acceleration of social change and acceleration of pace of life. We will through examples, found in various papers on the Estonian/European push for

EU-wide OOP implementation, discuss how this trio of processes each contribute to the push in and of itself. Firstly looking at the economic incentive for technological acceleration.

According to McKinsey, in 2014 alone, cross-border data flows generated \$2.8 trillion in economic value exceeding the value of global trade in goods. Such growth reflects not just the dynamism of the technology industry, but also the digitisation of the economy as a whole (Ministry of Economic Affairs and Communications, 2017, p. 11).

The global dynamic and conception of trade balances have shifted towards the digital market, as the Vision Paper (Ministry of Economic Affairs and Communications, 2017, put forth by the Estonian government to sway EU interest towards implementing the digitized vision of tomorrow, states.

The vision of tomorrow seems to be a clear investment from the side of the Estonian government, as they attempt to encourage innovative thought through digitization and start-ups. After Estonia's separation from the soviet union, they attempted to make their own way. The push of the OOP is an attempt to do so, the endorsement of technological advancements and innovation from a governmental discourse will influence the individual and the society as a whole. As we have clarified in the section on hegemony, values and the dominant norm, there seems to have been a clear change in the discourse, that incentivizes focus on norms such as technological innovation and economic growth. When the Estonian government had the EU presidency, their first priority out of their top four priorities: "An open and innovative European economy means developing a business environment, which supports knowledge-based growth and competitiveness." (EU2017 - Priorities estonian presidency, 2017). The Estonian government have been making this push of digitization since 2012 ("Estonia's EU presidency: digital Europe and the free movement of data — e-Estonia", 2017) and the incentives to do so are undoubtedly bound up in economic incentivisation as the very implementation of similar infrastructure throughout europe would mean that, Estonia would be the frontrunner within this new digital ecosystem. The motivation behind the push has naturally not been formalised by government officials, but it is hardly a leap of logic to assume Estonia's agenda to be partly placed in this train of thought. Rosa sees technological

acceleration within a given society to be catalysed by technological advancements, the acceleration in itself can therefore be seen in waves. This understanding of sudden pushes of technological advancement can be argued to be reflected in the wording used by Estonian officials:

If you see the big numbers, the big numbers of who is investing in the latest technologies, who is getting the top talent, what are the biggest internet companies, and by market cap there is no European company in the top 20,” he said. “In e-commerce, you see a lot of Chinese and American companies dominating the market, so in that sense, I would be rather worried. Klen Jäärats, Estonia’s director of EU affairs (Politico.eu ).

The fear of missing out on the shift towards a fully digitised society and all the economic benefits it brings with it is very clear in this case. If technological acceleration can be understood in waves then we could say we’re in the predicament of being part of this wave and we either ride it out or we drown. This is of course much in tow with the capitalist mind-set of time being money, and zero growth meaning falling behind or stagnating (Rosa, 2003, p. 11). There is therefore an economic incentive to keep accelerating the rate of which we digitize Europe, not just because it would save money and free up more administrative time, but also because the considerations of intercontinental power relations needs to be taken into consideration. China and the US are very much in the same vein of thought when it comes to digitizing and as Estonia’s director of EU affairs point to in the quote above, the EU must remain competitive or be left behind.

It is as Rosa puts it; this assumption of enforced capitalist acceleration by itself seems insufficient to explain a whole range of acceleration (Rosa, 2003, p. 12). The economic incentives are undoubtedly dominant in the intentionality found in Estonia’s push for digitizing Europe, and it is important to understand additional factors at play in the process in itself and how we might further understand the societal implications of implementing OOP. In this section we have seen how the Estonian government narrates it’s promotion of the OOP and that the influence of the economic motor is driven by economic incentive. In the next section we will analyse how the structural motor and continue the affected state of the trio of motors in relation to OOP.

## Structural Motor

The OOP promises to digitize every citizen in a centralised network. Through an understanding of technological acceleration's effect on social change in a given society, in this case of Estonia, we will argue that the very requirements for participating in a society change alongside the technological advancements made to accommodate the social changes it may cause. If OOP is fully implemented in a society, every citizen will have to be on the same system.

Estonia has by far the most highly-developed national ID card system in the world. Much more than a legal photo ID, the mandatory national card also provides digital access to all of Estonia's secure e-services (e-estonia, 2017).

This nationwide digitization of one's official digital identity could be seen as a natural streamlining or homogenisation of behaviour within certain limitations. For example if every piece of data between the government and citizens is digitized, then communication becomes impossible without the access to ICTs. This has the potential to marginalize groups of people for whom this technology is unavailable. Rosa argues that a big part of the acceleration mechanic owes a great deal of its momentum to the societal structure of the nation in question (Rosa, 2003, p. 7). For example, Estonia being a capitalist economy and a democracy, with no strict hierarchical division of citizens, allowing for the future potential of effectivisation of society to become relevant for every citizen involved in the progress. In other words, the technological acceleration in and of itself will in turn, due to the structure of the society, incentivise further acceleration. The action-plan mentioned in the following paragraph aims at a fully functional user friendly accessible network:

Public administrations should share information and data between themselves and enable citizens and businesses to access control and correct their own data; enable users to monitor administrative processes that involve them; engage with and open up to stakeholders (such as businesses, researchers and non-profit organisations) in the

design and delivery of services ("EU eGovernment Action Plan 2016-2020", 2016, p. 3).

Being outside of this structural network could lead to an exclusion of the citizens not participating in the network. The social change and the cross-border use of the OOP will change citizens' relation to ICT's (McCarthy, 2015, pp. 33-35), and become an inert and dominating part of their life-structure, if one does not wish actively to be excluded by society. This is something the Estonian government should take into consideration while designing the OOP, as there are clear implications that this will change the structural foundation, affecting the structural acceleration of society. The Estonian Vision Paper states that; "Data localisation is the measure for the 20th century, not in the 21st century" (Ministry of Economic Affairs and Communications, 2017, p. 10). Data localisation is how data is stored today, on paper being sent to the different governmental departments and the Estonian government address this as being an outdated system. It can be said - that being on an outdated system leads to stagnation if other competitors do work with the newer system, and as we have noted above force actors not willing to continue with the pace of structural acceleration. This is a fundamental social change, where innovation and business ventures is set as the first priority, as the Estonian government tried to push incentives of, innovative European economy and business environment focussing on growth and competitiveness (Rosa, 2003). During their presidency at the EU as we mentioned in the economic motor.

This push of encouraging a nation and the EU through OOP may very well lead to the 'slippery slope' phenomenon, mentioned earlier in this paper, seems to be spreading as it is seen in competition in the job market, being a updated individual and keeping up with technological advancements. In this race of keeping up with the advancements of technology and eventually the social and cultural changes, as citizens and users of the OOP system may fear falling behind, becoming outdated as with the older version of the administration, people will start experiencing the fear of missing out, simply a fear of exclusion, and thereby struggling to maintaining one's position in society becomes a continual race of sticking to the pace of demand as the social change accelerates (McCarthy, 2015, p. 11).

In this section we analysed changes that the Estonian government are attempting to push to portray the structural changes in society. This leads us to the next section where we will

elaborate on the cultural motor where there can be seen a change in the pace of life among citizens.

## Cultural Motor

The cultural change or pace of life is the third factor in the trio of Rosa's acceleration model. This is the most elusive part of the theory, as cultural considerations often are in any empirical context, possibly due to the high likelihood of subjectivity entering the discussion. Nonetheless, this is also where humanistic consideration become relevant in the analysis of the OOP. Cultural ramifications of technological acceleration seem to be, at least according to Rosa, academically underreported upon (Rosa, 2003, p. 9). We have, up until this point, discussed the power of the dominant norm, but it is important we understand the power culture holds, on the directionality of societal norms.

Even though there are only a little over a million of us, thanks to Estonia's capabilities, we can make ten million payments, perform ten million requests and sign ten million contracts in just ten minutes. Even ten times larger states cannot beat us. But the good news is that it is possible to join our exclusive club of digitally empowered citizens (Kersti Kaljulaid - President of Estonia, E-Estonia.com).

The quote above frames a culture where speed and efficiency is the coveted norm. A nation with the digital capacity to complete a threefold of ten million actions simultaneously, is being presented as an exclusive and desirable "club" to live in, thus equating acceleration with empowerment. This tendency, which is also explained in the theory section The Cultural Motor, emphasises a paradoxical state of a culture, where the individual is to keep up with the constant technological development that continuously creates new opportunities for carrying out more tasks in everyday life. The implementation of the OOP could be argued to enforce this tendency, as it would change the structure of certain bureaucratic process where individuals are obliged to use time in order to complete them:

In many cases, documents needed to complete certain procedures can be submitted online without the need for further off-line steps (e.g. in-presence submission of

documents, in-presence legal certifications, in-presence signature of documents or certificates), indicating a trend towards procedural simplification and reduction of time-waste associated with in-presence execution of procedures; (GNKS Consult, 2017, p. 73)

Applicants are requested to submit documentation to complete the procedure, but this submission is not available online, therefore increasing effort in terms of time and costs associated with the completion of the procedure. (GNKS Consult, 2017, p. 110)

## Sub-conclusion on Social Acceleration

We can see the theories of Hartmut Rosa to be much in a sort of agreement with McCarthy's Social construction of technology theory. In the sense that Rosa argues both for instrumentalist 'motors' i.e economic incentives and technological accelerations, and the essentialist influences of these technological advancements i.e the cultural motor and the acceleration on the pace of life it causes. They are intentionality embedded in technological design in the way Estonia frames, designs and executes their Once Only Principle, the intention naturally for Estonia and Europe to become more effective, interconnected, competitive and wealthy. This is a result of the economic motor and in a sense the global growth dynamic wherein dominant technological advancements sets the standard which every country, who adheres to the capitalist system, should conform to, so as to not fall behind. However, the instrumentality of designing and executing implementation of these technologies do not account for every outcome observed from nations or systems wherein this optimisation has happened. We can through a more essentialist understanding of technology understand that there are such things as cultural motors in societies wherein the inherent design and nature of ICT's or systems such as OOP might have an effect not bound by conscious intentionality, but rather a coalescence of processes culminating in an acceleration of the pace of life. While Estonia or "future digitized europe" might become more efficient and thus more competitive and wealthy on the OOP, the reality might become less desirable as we perhaps become aware that our everyday, our very perception of time has changed as we've opened up the potential for more life to be crammed into our day in tow

with this increased efficiency of digitized citizenship. Perhaps a streamlined communication system with the government raises the expectation of each individual citizen to act yet even faster and more efficient through their day. After all, the capitalistic system and mentality is based on the illusory concept of unlimited growth potential. And perhaps we should ask ourselves whether there is a limit to the speed of which we conduct everyday human existence. A 2008 crash of the human psyche might be avoided if we ask ourselves if we really should be hurrying this much. However, this line of argumentation is more suited for discussion on the pros and cons of large scale OOP implementation which will be divided into a discussion section of techno pessimist and techno optimist perspectives on the matter, found in the following section below.

## Discussions of Techno Optimist and Techno Pessimist Considerations

The nature of this project is that of borderline speculation. A theoretically grounded empirical investigation, but nonetheless speculative due to the fact that the very nature of our object of analysis i.e the OOP, remains to be fully actualised. The very conclusions of our theoretical observations are therefore to be determined in the future. Now that we've analysed the specifics of the various papers regarding the OOP we can start to discuss potential optimistic or pessimistic scenarios of its implementation in the near to far future. The discussion will be a mix of perspectivation and discussion of results as the complex nature of Estonia's digitization push is best understood in reference to other examples of digitization of governments and citizens.

### **Techno Optimism**

#### Estonia – A Place of Opportunities

We believe that the case investigated in this project also demands an alternative reflection than the standard leftist technology is bad and only serves capitalism that seems to be the prevailing academic consensus for academia originating from Marxism (McCarthy, 2015). By doing so we employ the original Marxist understanding of technology as an enabler of the



masses' freedom, techno optimism, although such understanding is today in fact rooted in academia that subscribes to more liberal schools of thought (McCarthy, 2015). We solely regard the case of culture and value hegemony between Estonia and the rest of the European Union. Had this paper taken its departure in a wider perspective of global society in which postcolonial nations were regarded, an understanding as the one we employ in this paper would in all likelihood be rather questionable.

Estonia's digitization and OOP has, according to the country itself, been well-functioning and highly effective since its implementation in 2007 (e-Estonia, 2017). As we have argued in our analysis, the implementation of the OOP, which then functions as a state apparatus, follows a strong individualization (Foucault, 1975). However, we would like to explore the implications that provide the users, both Estonian and EU citizens, with greater opportunities suggesting a deviating argument from Foucault's notion of instrumentalization and individualization through state apparatuses. In Estonia's Vision Paper (Ministry of Economic Affairs and Communications, 2017, p. 4) it is argued that there is a need for:

a functioning system of data access, (re)use and portability for all types of data to unlock it from silos so it could be used in decision-making processes by the governments, process optimization or new product offerings for companies and better decision-making for consumers and SMEs (ibid.).

The goal is ultimately to create a thriving single market in Europe which will give more opportunities to European countries' economies as well as private businesses. It is argued that the OOP is not only a more time-efficient method to handle personal data, but that it likely will provide small and medium sized businesses, including customers, with opportunities for expansion (ibid.). Thus, digital developments and the OOP in a European context will expand markets across borders and thereby allow individuals, both in the form of consumers and owners, to be more mobile. There are many distinct factors that influence a country's GDP and this will not be an analysis of why Estonia's economy has been flourishing. But one cannot ignore the fact that the state budget execution has increased with more than 3 billion euros since 2007 (Ministry of Foreign Affairs and Government Office, 2017, p. 28). As we address above, the Estonian government has focused on developing technology on a national

level which has created a culture of inclusion in technological advancements. It is often found that theorists within the Marxist realm perceive certain mechanisms in modes of production as subject to oppression of the ruled – the working class. We believe this is prominent in our analysis. These notions commit to a rather techno-pessimistic territory that define technological advancements, such as Estonia's data sharing principles, as catalysts for strengthened state-governed power structures that homogenizes the individual citizen and normalize judgement, thus reproduce the hegemonic power structure (Foucault, 1975). However, while the individual is governed through these state-apparatuses, they are also allocated more freedom and social mobility through increased trading abilities. As an Estonian citizen who preserve, as argued, a cultural technological hegemony, that citizen must operate within his or her cultural realm – one might say his habitus – to exert his or her freedom to flourish. The OOP is both working as a state-apparatus that exercise means of observation which is placing subjects in their correct roles, and it is at the same time working as a utility that provides an extended spatial freedom to individuals within that very same state-apparatus. Not only does OOP simplify the relationship between state and individuals, and thus make public services more accessible, it also accelerates, and thereby spread, the current cultural hegemony present in Estonia. This opens up opportunities for economic growth for the individuals that partake in OOP.

Furthermore, though it is argued in our analysis that cultural and ideological hegemony is maintained and reproduced through OOP, it could also be perceived differently in light of a more techno-optimistic approach. With the OOP as an overall rule of conduct across borders throughout EU, discrimination could be minimized in that EU citizens in need of public benefits or services previously available in their mother country, would not have to manoeuvre through linguistic and/or cultural spheres that would otherwise potentially discriminate against them, since all their data would be accessible when moving to any other EU member state. Thus, Estonia's OOP is also one that renegotiates the cultural hegemony of not only the dominant digitalization and technological cultures of the EU, but more so the existing cultures of surveillance of EU citizens at large and the discrimination of foreign EU citizens in other countries.

## Estonia in a Global Context

As it is argued in the analysis, the Estonian vision paper is abundant in proclamations that fully comply with the ideas of liberalism, pluralism and autonomy amongst other, with clear examples of these being:

This gives great room for freedom of contract. Freedom of contract is the general principle that enables contracting parties agree to terms without government intervention... The once-only principle serves the end-users - citizens and businesses - who are, as a result, able to receive prompt, tailor-made and high quality digital services from public administrations, both in the originating country of the user and from other EU countries alike (Ministry of Economic Affairs and Communication, 2017, p. 18).

It is evident in the above that the prevailing culture and ideologies of the EU, or at least the written purpose paper of the EU is the main ideological connection to the Estonian intent. Although there is great compliance between the two intended ideologies and values, there is still big differences even in the intended goals of EU on one side and Estonia on the other side. In the same regard the European Union as a whole has none of the above and moreover many countries, among which leading countries in terms of official language, economy and cultural output such as Germany and France are culturally behind in terms of digitization culture throughout their respective societies ([www3.weforum.org](http://www3.weforum.org), 2014). Moreover, the exponential digitization of Estonia since the fall of the Soviet Union and the resulting re-creation or re-building of Estonia, one of EU's youngest countries, is in stark contrast with the development that most other EU countries, especially the culturally and ideologically leading countries, have had.

When we look at the case of Estonia historically and currently, it is evident that capitalism and Western cultural heterogeneity has had a huge interest in and impact on the country even before the fall of the Soviet Union and continues to have so in contemporary time. When looking at some of the current stakeholders behind contemporary Estonian digitalisation

culture, big corporations such as Google, Monsanto and Microsoft have clear interests that are ignorant to overlook, when discussing the state of digitalisation as a culture in Estonia.

We would like to refer McCarthy's reading of Robert Keohane and Joseph Nye's notions of *soft power* and *hard power* (McCarthy, 2015). However, it is important to highlight that the usage of "soft power" and "hard power" in this paper does not acknowledge Nye's and Keohane's understanding of "soft power" as being more superior to "hard power" in modern days. Such discussion and distinction is simply beyond the scope of this project.

Estonian authorities seem to conduct *hard power* internally, whilst externally manoeuvring through *soft power*. McCarthy states his understanding of Nye's distinction of the two power modes in term of technology:

For example, in Nye's discussion of 'intra cyberspace' and 'extra cyberspace' forms of power the analysis never extends to the power of the rules and norms of the technology itself (Nye 2010c: 5, *passim*). Nye illustrates the 'hard' and 'soft' dimensions of these internal and external dimensions of cyberspace power – DDOS attacks and information-shaping norms in the former case, critical infrastructure attacks and naming and shaming campaigns in the latter (Nye 2010c: 5). Nye discusses the use of filtering technologies as an exercise of state power but does not extend this example of how code functions as a set of norms and rules at the heart of the network itself, in its hardware and software infrastructure (McCarthy, 2015, p. 24).

When the Estonian vision paper argues that: "Refuting false beliefs or protectionism. Some Member States argue against this initiative on the basis of the pretext that it would make the life of U.S cloud companies easier to control the data about Europeans" (Ministry of Economics and Communication, 2017, p. 12) we understand this as being in contrast to the dominant culture as well. In contemporary times both state agencies and other actors such as U.S cloud companies are in fact able to obtain and control personal and non-personal data about citizens and businesses without the knowing of the other involved party, whether legal or not - such is the culture in digital surveillance today (Garside, 2017). In contrast to this prevailing culture the Estonian OOP, based on blockchain technology, proposes a different

data-obtaining culture in which the regarded party will be alerted whenever any other party tries to obtain information considering data about these citizens or the citizens' business. In fact, the citizen or the business will have to give acceptance to that party, before an access to the data can be obtained (Ministry of Economic Affairs and Communication, 2017).

Obviously, the reality of this potentially being tampered and the risk of misbehaviour is in place, when we consider this matter historically and academically. Though a discussion of the technical elements of such is beyond the scope of this project.

Thus, seeing the motive of digitizing Europe and investigating the OOP surely does play out to carry forms of power and social change both nationally as well as internationally.

However, as we also argue above; new emergences in society comes with both opportunities as well as the repressive forms of power. In the next session, we will be discussing further implications of the accelerating digital developments flourishing on a global scale.

## Techno Pessimism

### Social credit

The less glamorous face of centralised digitized governance is the recent focus on concepts such as Social credit systems.

Our empirical material has led us to the realization, that the implementation of OOP in Europe is only possible because of the big data potential within BT. However, OOP is only one of many possible digital social constructions that are emerging because of BT. The Sesame Credit System is a social credit system that is currently being developed in China, and it was expected to be launched in Beijing in 2020, but has been delayed due to concerns regarding consumer privacy (Hornby, 2017). This system could be one of the less glamorous examples of centralised digitized governance. The system makes it possible for China's 1.3 billion people, to evaluate and rate each others trustworthiness by assigning each citizen with a score between 350 and 950, which is calculated within five different categories: payment ability, credit history, personal information, behaviors and social networks (Ming, 2017).

When the system becomes mandatory, the citizens of China will live in a self policing society, where each individual is rated on even the most common traits of everyday life. This

includes what you are doing with your spare time, such as playing video games or watching television, where you go and who your friends are. Even if a friend of yours posts something negative (especially about the government) on social media, your own score will decrease as well. So you are not only accounted for your own conducts, but for your entourages as well. Having a low score in the system can affect your life in potential following ways: Being denied access to certain restaurants, night clubs or golf courses and being restricted from traveling. Furthermore, your internet will be slower and you can lose your credibility for rental applications, secure insurance and access to social security services. Even your possibility for getting a job and school options for your children are affected by your personal score (Ming, 2017).

This social credit system might at first glance seem distant from western norms, but looking at how many western societies interact with each other on social media can narrow that gap. As our analysis has led us to understand, people are to a certain extent, dominated by the societal norm they inhabit. If one wishes to be accepted in society, it is necessary to behave within the accepted confinements of said societal norm. To do that one must accept the prevailing norm as reality, thus it becomes self-enforcing. As it is people that accepts the norm, so it is people who evaluate individuals who fall outside the norm. Social media such as facebook, twitter and instagram are examples of social media platforms where an accepted norm determines what content people are to share of themselves in order to be accepted by the norm (Lee, 2016). The self policing tendency within social media in western societies resembles the Sesame credit system in such a way, that it is now citizens themselves that are determining the social status of each other, and one's social status can be alarmingly closely linked to one's quality of life as it is to be in the Chinese social credit system. Another aspect that indicates how the EU is moving towards similar governing structure as in China, is regulating laws regarding content on social media. In China, journalists are not allowed to post anything on social media without consent of the government (Wong; Piao, 2016). Likewise, the European Commission has agreed on a pledge that bans hate speeches and racist content on facebook, twitter, youtube and microsoft (Fioretti & Chee, 2016). Even though these examples are not in complete alignment, the underlying motive remains the same - to regulate data content on social media to the satisfaction of a hegemonic power, that is the Chinese government and the European Commission.

## Turnkey Tyranny

Edward Snowden coined the phrase “Turnkey Tyranny” (Edgar, 2017).

It means that even if you trust the government today. What happens when it changes? And in our democracy, we're never more than 8 years from a total change in government. Suddenly, everybody is vulnerable to this individual, and the [surveillance] systems are already in place. What happens tomorrow? In a year? In 5 years? In 10 years, when eventually, we get an individual who says 'You know what? Let's flip that switch, and use the absolute full extent of our technical capabilities to ensure the political stability of this new administration' (Vice, 2016).

The digital infrastructure of today might be perfectly harmless in the right hands, but a necessary question to ask is, what if the infrastructure falls into the hands of a future would-be dictator, totalitarian state apparatus or corruption in general? A perfect example from as little as three days before the completion of this paper is the recent Net Neutrality abolishing by the hands of the FCC board of directors from the Trump administration in USA. The infrastructure of the internet was used for freedom of speech, political movements and potentially a financial disruptive technology such as cryptocurrency, allowed to grow from the backs off of online exchanges. The abolishing of net neutrality allows AT&T, Comcast and Verizon to censor or significantly slow any website they so choose (Sasko, 2017). Either by offering expensive fast-connection premiums only large corporate interest can afford or by simply shutting down anything from blogs, news sites, exchanges or social platforms in conflict with their interests. The power to appeal net neutrality has always been there, the possibility to censor the internet has always been there, as an integral part of the technology itself. However, it took the right intentionality, the specific administration of the Trump presidency to decide to finally flip that switch. When we look to the future of a Euro-wide digitized centrality, it is important we keep in mind the instrumentalist/essentialist understanding of Social Construction Of Technology explained to us by McCarthy. Because the utilisation of a technology such as BT or ICTs depend partly on the potentially biased design of the tech and the intentionality of the user.

Now, bringing the points of McCarthy together with Rosa's understanding of social acceleration, we start to see an interesting connection between the instrumentalist use of ICTs and the pace-of-life dependency on these technologies.

If we look at the analysis McCarthy presents in the techno-pessimist point of view with the - 'Medium' being an obstacle for the 'Self' to understand the 'Other' (McCarthy, 2015, p. 31), it could mean that in our highly accelerated world, we are in a higher degree relying on external forces to pre-wrap reality and facilitate it through a medium - and an easily digested context where we might be able to understand the reality through 'Maps' of reality rather than actual reality. So when we ourselves look at a medium such as a television, internet, ICT's and we perceive the Other through these lenses - what we sometimes neglect to understand is that we, for one, don't feel or have time to delve in-depth into these problem areas presented to us on the flickering screen. We practically only have time to see the pre-wrapped versions of reality and this in turn means that when the Medium comes closer to an apparent reality in our eyes we see less of ourselves in the Other and mistake the Medium for Reality.

This may very well be why proposals such as the removal of net neutrality can be acted out, as we when viewing these pre-wrapped realities in our highly accelerated, condensed lives don't see ourselves in the other. As the fatalities seem to grow on the mainstream media-outlet we instinctively create a distance to the other and there by ourselves. We create a shield, the screen doesn't only become a representation of what's out there it become a shield we hide behind. We tell ourselves that: "Ohh they are doing bad - in the third world countries" - but as we are being numbed by the increasing flow of social acceleration we start thinking: "As long as it's not me, my family, friend, neighbour or colleague - or anyone within a few links of familiarities - we're still fine"; the other becomes invisible or ignoring the existence of the other becomes automatic. Apathy becomes cultivated goods as we lose more and more sense of ourselves - the race continues as we fill up our lives with meaningless hobbies, those we see through the screen seem distanced, those on the screen are human, we know it but because these 'kinships' with the other is based on a representation we direct our own stories and the other become images, fragments of the whole picture, we start idolizing them, because we do not know them. If we did know them, see them, smell them, touch them we might realize: "Hey - that Kanye West guy - he's not a genius, he's simply a guy that knows how to produce music - but nothing more than that". The OOP and



ICTs may actually be the worst thing to ever happen to humanity - as we become more distanced to the other we never realize who it is we really are, we never learn and everything we will learn from now on is going to be reproductions or reruns.

No one else can relate to you, and as you can't force it down their throats - you realize you're now more alone than before this newly acquired acknowledgement. As people are either sedated by the presented stream of media, religion, excessive exercise, fetishization of intoxicating substances - you either go for the pipe, put on your tinfoil hat or join the world of humanoid-zombies.

The problem we see, which is the reason we cannot relate our self to the Other, is because our representation is on a visual level only, compared to the phenomenological relation to another human being - you need to be in the room where you can smell them, see them, feel them - and when you're viewing someone through a glass screen you are not getting the same representation of what that person is as you would if you had been there in person instead. The pre-wrapped reality provides a very specific angle of that person. A robber might be represented as a victim depending on the angle taken by the provider of the information. Reality perceived through ICT's could in other words entirely depend on the framing devices and intentions of the communicator.

In this case, the pre-wrapped realities produced by the MIME network might play an interesting role when we start to perceive technology as social constructions (SCOT) with the potentiality of socio/political/corporate agendas imbedded into their very structures, codes or limitations. If we accept the premise that we live in a highly accelerating society, driven by technology, which in turn accelerates our social reality as well as our very perception of time, then the very basis of techno-pessimists' critique of ICT's role in the way we ascertain truth from fallacy in contemporary society, can be supported by this development of the modernised sped up psyche.

Simulation and the 'hyper-real' are replacing politics by removing the difference between the true and the false (Der Derian 2001: xxxiv, 214; cf. Carruthers 2001).

The citizen who is scarce on time in this modernised digitized society, has trouble separating truth from untruth due to the flood of information and the misjudgement of, MIME-mediated-reality, for reality, and if anything, this invites intentionality of

technological design to occur. Or seen differently, this could provide the potential prerequisites for power to be enforced.

## Conclusion

We live in an accelerated society, where digital technology in a sense has reached the farthest parts of the globe and the capabilities of ICT's have allowed international competition to be more present than ever in the political sphere. We have shown that society in fact is accelerating due to interrelational processes of cultural infatuation with increased opportunity and growth, the technological acceleration pushed by industry and government to accommodate the expectation of continually effectiviced living and finally the social changes riding on the structural consequences of implementing these technological solutions within society. We have understood that ICTs are more than just impersonal tools which use, entirely rests on the intention of its user, it is fact, due to the sophistication of modern innovation, a coalescence of biased intentionality of various potential agents might pour into the very design of the technology. We have through our understanding of power understood that this intentionality of technological design might serve specific schemes of control and behavioural restriction. The surveillance capabilities of an OOP society might, from our shared understanding of power, acceleration and technological bias, spell out a multitudinous range of warnings if not just future considerations to be had before a Euro-wide implementation carelessly gain traction on economic incentive alone.

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