



# DIGITAL TECHNOLOGIES IN THE SERVICE OF THE COMMUNITY

POLICY BRIEF BY JOHANNES LITH

## INTRODUCTION

Already existing digital technologies could bring about huge benefits to communities if more widely implemented, yet the threat of misuse and hacking lies heavy on the shoulders of decision makers. As a result of this difficult equation, countries have vastly different positions on the issue and disagree on the extent to which technologies should be used to serve the community.

There are differences between countries, but also within countries. Depending on the size of cities, there are varying possibilities to invest in becoming so called smart cities.

When looking for success stories of utilizing digital technology to the fullest, the Baltics, and Estonia in particular, tends to come to people's mind. An ELF organized Ralf Dahrendorf Roundtable in Dnipro, Ukraine, brought up some of the reasons for this fame and whether other countries could and should move in the same direction.

For analysing outcomes of the discussion in Dnipro, this paper has four parts. The first part will present the case

of how and why Estonia became a pioneer in the field. This will be followed by the sceptic and positive views on how well the Estonian model can work in other countries. Finally, conclusions with a forward-looking liberal analysis will wrap up the paper.

## THE CASE OF ESTONIA

Estonia is rightfully seen as a frontrunner in digital technologies and a model for how to successfully implement the change from a laggard to a super power of e-democracy. But how did they do it?

After having gained its independence, following the collapse of the Soviet Union, the goal for Estonia was to decrease bureaucracy and provide more effective public services.<sup>1</sup> The emerging digital age answered to this longing, as computer systems cannot take bribes and do not get tired. Digital technologies lower corruption and make elections cheaper, as the former ambassador of the Republic of Moldova to Estonia, Victor Guzun,

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<sup>1</sup> Rõivas 2017, p. 76 (Friends of Europe – Policy choices for a digital age: Taking a whole economy, whole society approach)

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rightfully mentioned during the Roundtable in Ukraine. The decision to move towards embracing digital technologies, led to things still seemingly futuristic in many EU member states. Take the electronic ID, for example, connected to everything you do in Estonia, giving you the possibility to arrange practically any public issues, without ever meeting a state official. Consequently, the country itself has become a digital service.<sup>2</sup>

As in any major organisational changes, be it in societal or business life, one needs to know the opportunities, but also the risks involved. In the case of Estonia, the opportunities were clear – less bureaucracy, more effective public services, eventually saving a lot of public money. Also moving towards “smart governments”, by analysing data from everyday life, provides the opportunity to bring public services where people and businesses need them the most, based on statistical facts.<sup>3</sup>

However, Estonians were also aware of the risks related to data integrity and online voting. When the world’s first cyber-attack against an entire state hit Estonia in 2007, the Baltic country decided to strengthen their cyber security instead of giving in and returning to more traditional ways of dealing with public issues. The move towards digital technologies playing a greater role in societies around the world, was seen as inevitable. Using this logic, Estonians had a choice of falling behind in development or fighting cyber threats by investing more in cyber security.

Internet is considered a social right in Estonia, so the government provides fast internet and cyber security to everyone. In return, every citizen is expected to adapt to the technology playing a greater role in the society. This

is different from other countries, where the state might not have any obligations on providing internet access to people, and where digital identity systems exist, but only a small number of people use them.<sup>4</sup>

The decisive push towards the change in Estonia was made by the government. It made an agreement with the banks, in order to integrate everyone into the digital system. According to this agreement, any transaction, over a sum currently valued at approximately 20€, needed to be signed with an e-ID. This e-ID is handed out to every citizen by default.<sup>5</sup> Consequently, practically everyone in the society started using the e-ID.

Nowadays everything from a doctor’s prescription to public transport card and driver’s license can be integrated on one e-ID, with any information accessible only by consent of the person in question. Integrating the private and public sector into the same system made sense in a small country with limited resources. One well-working system, instead of many expensive ones was in everyone’s best interest.<sup>6</sup>

The savings of this integrated and electronic system are substantial. All the time and effort that people save by dealing with a transparent digital system, instead of getting to a public office and waiting in line, provides citizens an opportunity to do something they are more interested in and the society as a whole benefits from this. It has been calculated that Estonia is saving 2% of its GDP just by electronic signatures on declarations, instead of traditional handwritten signatures.<sup>7</sup>

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2 Rõivas 2017, p. 81 (Friends of Europe – Policy choices for a digital age: Taking a whole economy, whole society approach)

3 Rõivas 2017, p. 78 (Friends of Europe – Policy choices for a digital age: Taking a whole economy, whole society approach)

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4 Rõivas 2017, p. 79 (Friends of Europe – Policy choices for a digital age: Taking a whole economy, whole society approach)

5 Rõivas 2017, p. 79-80 (Friends of Europe – Policy choices for a digital age: Taking a whole economy, whole society approach)

6 Rahe 2016, p. 13 (ELF publication – Re-designing public services for the 21st century: Comparative analysis of the e-reforms in Estonia, Bulgaria, and Romania)

7 Rõivas 2017, p. 81 (Friends of Europe – Policy choices for a digital age: Taking a whole economy, whole society approach)

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The Estonian example shows us that rapid transformation is possible, even if the initial adaptation period might be scary. It also shows that the technology is already there to be used. The question is whether other countries feel ready to implement it.

## SCEPTICISM TOWARDS THE ESTONIAN MODEL

It is not easy to hear people criticise the Estonians for their success – quite the opposite. However, scepticism about the same decisions working in the same way in other places is still widely spread.

One argument is that Estonia is a small country, with only 1,3 million citizens, making it easy to centralise everything. It is easier to have everything from public transport to hospitals covered on a national level in one system when distances are short and population is low. Within bigger countries the implementation of a similar e-society would perhaps need to be done regionally, or through initiatives, and cooperation among cities.

Related to the size of the country, one of the most frequently heard criticisms of the Estonian model is that one cannot necessarily apply the same template to other countries just because it works in Estonia. This does not only go for the size of the country, but also for how differently countries view privacy and cyber security. Different countries see different threats and have different starting points when it comes to e.g. infrastructure for implementing a transformation of this magnitude.

A threat that has nothing to do with the way a country is led, is that citizens might turn into uncritical consumers through the power of algorithms. This would change the way we define citizenship. What is supposed to make our lives easier, might in the end make us less critical and aware of what we are doing. This can already be seen on social media – the users only see things they want to see. While using algorithms to analyse how to most efficiently spend public money, the government has a big responsibility in making sure not to transform active citizens into uncritical consumers.

An algorithm could automatically approve your tax declaration without you having seen it, or provide a quick recommendation in an e-voting situation, based on your earlier behaviour in elections. This might make our lives easier and save time for us to be active in other fields of the society, but at the same time, when misused, it could pose a serious risk to democracy.

Even if digitalisation would bring a lot of savings and provide a way to use human resources in a more efficient way, it is irrelevant for people if they lack the feeling of safety. Citizens trusting technology to create a better society, is in the end the decisive reason for a country or a city to spend more on integrating digital technology into our daily lives. Without trust, the money spent on the system will not matter.<sup>8</sup> Consequently, the Estonian model cannot work without this trust.

Also, it is never going to be easy to win elections, pushing for societal changes in established and seemingly well working societies – in other words, to change what people should trust when there is no visible pressing need for it. Estonia in the early 1990s, longing for political change, was in a different position to fulfil the vision of a digital community than, for instance, today's Germany.

In short, one could say that there are three main reasons to be sceptical about the Estonian model working elsewhere. The size of the country, the changing roles of the citizens and the state, as well as people's trust in politicians and technology, make decision makers unwilling to embrace the path laid forward by Estonia.

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<sup>8</sup> Rahe 2016, p. 17 (ELF publication – Re-designing public services for the 21st century: Comparative analysis of the e-reforms in Estonia, Bulgaria, and Romania)

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## WHY IT WORKS

Countering the main reasons for scepticism one by one, let us start with the size of Estonia. Technologically this is not an issue, as technology can be adapted for bigger countries and many countries already have similar systems. Even cross-border cooperation is possible, if the political will is present. Evidence of this can be seen in how Estonia and Finland have successfully merged their E-Systems in 2017. Naturally, bigger countries and cross-country cooperation brings forward different challenges that need to be addressed before relying on a system, but there is no technological reason why the Estonian model could not work in other countries and across borders.

Moving on to the transformation of the role of the state, it is good to keep in mind that states have had vastly different responsibilities throughout history and an industrial revolution like the one we are witnessing now, is naturally going to shape the role of the state. Deeper cooperation among states can also be expected, because of the ever-growing impact of globalization. Joining efforts in public E-Systems is only another step towards that.

Also, the role of individuals is undoubtedly changing and the risk of citizens turning into uncritical consumers is a valid threat. This threat can and needs to be worked against as long as the threat is acknowledged. On the other hand, an E-System containing all the services that a state offers, not only saves time and money, it also diminishes the risk of corruption and makes it easier for people to be active citizens. When filing a complaint for a pothole is only a few clicks away, and you can easily follow up on what your minimal effort leads to, it makes the barrier to action very low.

Scepticism related to scale and transformation of societies can, in other words, be argued against. However, people's lack of trust and feeling of safety are much more difficult to change. These are the main reasons for countries and cities not to move faster with the digital revolution.

Many people fear the electronic identification system not being trustworthy enough and still prefer traditional signatures, stamps, and waiting in line to see a clerk at a governmental building. Former prime minister of Estonia Taavi Rõivas reminds that handwritten signatures are, in many ways, less secure than electronic signatures.<sup>9</sup> Furthermore, it is easier to catch misuse if every action is marked, and privacy breaches are very serious crimes in the judicial system.

Safety will not improve by choosing to neglect digital innovation. This is easy to argue for as the growing importance of digital technology can be expected. Even if we only look at our societies today, we already have, for instance, nuclear power plants and traffic lights that work digitally and need to work digitally to avoid disasters. The safest solution is to keep them working safely – not to move back in time and replace them for manual labour. Consequently, it is more important to invest in more safety and ability to counter cyber-attacks, rather than not investing in digital technology at all.

Information about our doctor visits, rental contracts and marital status is already available electronically. Governments could already misuse their power – all the information already exists. Now the question is, whether we wish that information to be used in a more efficient way and kept safer or not. This can be done partly by putting more efforts on cyber security and partly by better safeguards and laws to fight misuse of information.

Despite these argumentations it is always going to be difficult to gain trust in new technology. There are no easy paths to gaining trust, but it is essential for making a smooth transition. Here, a push from the state, like the one by Estonia to make everyone use their e-ID for payments, might be the only way to guarantee trust

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<sup>9</sup> Rõivas 2017, p. 78 (Friends of Europe – Policy choices for a digital age: Taking a whole economy, whole society approach)

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for the technology. Electronic banking is widely used in Europe and if you trust your money to be handled digitally, there surely is a lower barrier for trusting your electronic signatures to be used correctly for other issues as well. From this, one could assume that most Europeans would be ready to take a next step into digitalisation, although it might not be initiated without a gentle push from the state.

Having stated the importance of trust, the trust in the government, does not necessarily need to play a big role. According to a study by the Freedom House, Estonians consider political parties as the most corrupt of all institutions – showing that also Estonians do not trust their government to a great extent.<sup>10</sup> Yet, they seem to trust that the new system implemented by the government is better than the old inefficient system.

## WHAT CAN WE LEARN FROM THE CASE OF ESTONIA?

As liberals, we need to look forward – not try to cling on to something that will never come back. If we choose not to look forward, we will fall behind in comparison to those who do. This was how Estonians argued when refusing to accept an easy deal with EU members on getting their old technology cheaply. Instead they decided to invest in moving ahead of the richest countries in digital know-how.

Making digital technologies more useful for communities is a field in which the EU can make a big difference. Work is being done to implement a digital single market, but it is far from finished. The difference of maturity between member states in everything related to technology is big, which makes it difficult to implement all the necessary changes. It is in these cases that the EU can give its members a decisive push in the right direction.

The EU has yet to take a strong, common stance for moving towards being a frontrunner in using digital technologies to their fullest. However, by further integration of the markets, the EU has the potential to become the global leader in using digital technologies to serve communities. This would not only make it possible for other countries to follow the example of the Baltics, it would incentivise them to do so to keep up with development.

From a liberal point of view, it is important that citizens have the possibility to be active and heard in the society. More centralisation generally leads to a weaker voice for each citizen and is therefore not wished for. The Estonian model of centralising everything digitally is, however, an exception, as this centralisation makes it easier to involve everyone online. It also gives citizens more freedom to focus on things that matter the most to them, instead of fighting with bureaucracy and corruption. Paradoxically, connecting all the information into one space, leads in the end to more decentralisation as everyone has equal access to all services all the time.

All the information that we fear being leaked because of increased integration of digital technology into our society, is already available to misuse today. It is just easier to misuse, if not secured by proper cyber security. The real threats need to be taken into consideration and any changes need to be planned accordingly, but complacency is also not a safe option. Developing cyber security as well as better laws and safeguards will be more useful than fighting globalisation and technological development.

As goes with any other societal change, it is important to make sure that the change is made in an environment where the rule of law is respected. Ensuring that the rule of law is being respected in its member states is something that the EU can, and should, play an active role in.

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<sup>10</sup> Freedom House, Nations in Transit 2015  
<https://freedomhouse.org/report/nations-transit/2015/estonia>

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In order to pull off what Estonia has done, there needs to be political will to take the full step into digital technology by involving everyone, not only the early adapters. Gaining citizens' trust is crucial in this development. Despite countries being in different positions to implement drastic societal changes, Estonia has shown that challenging transformations can be made – moving from a lagging Soviet republic to becoming a digital pioneer in the EU – and all it takes is political will.

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