STUDY 2022

Data in the Future Society

Summary

The Future of Data Freedom research stream

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Executive summary

The foresight study "Data in the Future Society" aims to contribute to increasing the use of data in public governance and helping shape forward-looking and informed data policies. This project was commissioned by the Government Office and the Foresight Centre and carried out by LevelLab in cooperation with the Institute of Baltic Studies. The project outlines the main trends and factors that affect the development of data society, future scenarios for the development of the Estonian data society up until 2035 and possible policy choices to maximise data use for economic and public benefit.

Different factors influence the use, storage, processing and sharing of data. Firstly, a significant driver is technological factors. To handle or manage data and keep pace with the evolution of society, it is also vital to constantly upgrade technologies by creating new or developing existing ones. Technological trends can be categorised under the generic term 'digitalisation'. In addition to technological factors, societal factors play a crucial role in the development of the information society. Society cannot keep pace with technological developments – adopting new technologies requires new skills, but it takes a long time to learn and teach them.

The third influencer is economic factors. The European Union is developing a new ecosystem so that people can take control of their data and move it around freely. At the same time, storing large amounts of data takes much energy, making data management unkind to society. Political, institutional, and organisational factors significantly impact on the availability of data in the public sector. Whilst data sharing from the public sector to the private sector has increased, the private sector is not yet inept to trust either other private sector companies or the public sector – data leaks, competitiveness and excessive state control over data remain major fear factors.

In addition to the above factors, data use is also greatly affected by structural elements. The most valuable data are predominantly in the possession of global technology giants, but the European Union is in the process of restructuring the data market to make more data available to smaller enterprises. Legal factors play an important role here. In the future, data that is recognised as having the highest economic and societal value will be available as open data, where high quality of the data will be paramount.

Based on the different factors and trends that shape the future of data society, four future scenarios have been created: "Digital Platvorm Paradise", "Data Market", "Social Contract", and "State in Command".

In "Digital Platform Paradise", developments are driven by business interests and data power is in the hands of the few. In this scenario, the state would start to outsource services to large digital platforms to cover the demand of society as a whole, as the state would lack resources to further develop their own services – the convenience for consumers created by large companies has reduced the consumer base for public services.

The second scenario is the "Data Market", where data power is in the hands of many and developments are driven by business interests. In this scenario, data exchanges and data brokerage services are created where individuals and companies can start buying and selling data. The marketplaces created will be operated by the private sector.

The third scenario is called "Social Contract", where data power is shared by many, but developments are motivated by the public interest. In this scenario, data cooperatives are set up where individuals can share their data. In this case, the objective of data sharing is not private profit but public value. Citizens have a high magnitude of data freedom, and businesses must create a collaboration that works for them.

The final scenario is "State in command": data is in the hands of the few, and developments are driven by public interests. People have vetted their trust of data in the hands of the state and are content with it because they no longer need to worry about data privacy. In return, people benefit from convenient and personalised government services, and the use of data by businesses depends mainly on the government's approach to the data economy.

As of 2022, Estonia does not have a comprehensive data strategy, but preparations have started to create such a strategy for 2023-2027. Until now, Estonia's data use objectives have been pursued through sectoral strategies and action plans. Since data is increasingly becoming viewed as a public good, the government should make further efforts to improve society's access to data. The scenarios generated by the

study highlighted several areas that Estonia could focus on to prepare for the future – data competencies, access to and usability of public data, interoperability, public sector's data needs, data and cyber security, public sector governance and innovation, trust between different actors in the data society, and the role of the Estonian language in the future data society.

Additionally, choices need to be made regarding the questions whether to focus on empowering the public or private sector, whether to rely on the EU's efforts or develop specific solutions for Estonian data society, to what extent the central government should intervene in local-level data policies, how tax policies could help shape the data economy, and to what extent the government can trust citizens to make decisions over their data. The four future scenarios developed in this study represent diverse and somewhat extreme future states, which aim to provoke thoughts and raise questions that help Estonia build its own strategy for the development of a data society.

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