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Scenarios as Thought Experiments for Governance

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1 Introduction

A century ago, American poet Robert Frost published his famous poem “The Road Not Taken” which has the following lines “Two roads diverged in a wood, and I – / I took the one less traveled by, / And that has made all the difference” (Frost, 1916). Frost’s poem highlights a fundamental dilemma in human affairs concerning the future. Our individual and collective choices lead us intentionally or unintentionally to take a certain path. This leads to intended and unintended consequences. There is vast social science literature trying to identify “critical junctures” which leads groups, governments and societies onto a particular path. This process is sometimes called “punctuated equilibrium.” As Frost indicated in his poem and numerous social scientists have pointed out, it is often not possible to go back and choose another path because developments that unfold are “path-dependent” (Campbell, 2010).

However, it is still worth exploring not only roads that have been taken but also roads that are not taken; particularly as path-dependence can have many alternative interpretations and there is no reason to take one overly deterministic view. Furthermore, critical junctures which unfold path-dependent development are not necessarily rational affairs where different parties engage from what Rawls (1971) called “original position” but rather semi-rational and unintentional aggregation of various forces.

Hence, it is still worth asking the “what if...” question. What if a different path had been chosen? It is worth doing so in regard to history and to develop so-called alternative histories. Even more, it is worth doing so in regard to the future and to ask what kind of consequences might emerge if we were to follow a different path.

Some may dismiss outcomes of “what if...” questions as utopias. For them, the future is another present and present is another history. There is a linear

logic which is often followed, and it is not easy to break free of the chains of path-dependence. Certainly, the approach of forecasting is one way to deal with the future and has its place in the great tradition of social science.

Nevertheless, we are dealing more and more with environments characterised by turbulence, uncertainty, novelty and ambiguity (“TUNA environments” as labelled by Ramirez and Wilkinson, 2016). In many fields, and particularly in medium- and long-term perspectives, forecasting has serious limitations. An alternative is to develop various narratives about the future. For some, it may be a qualitative exercise which may seem to lack the rigour of forecasting.

However, we have to keep in mind that the rigorous quantitative forecasts are based on qualitative assumptions. Most fundamentally, forecasters assume that present and past trends will extrapolate in the future. What if this assumption is wrong? Essentially, forecasts are based on a particular narrative about the future. Hence, it would make sense to develop a range of narratives about the future instead of relying on one narrative. In the end, we can always generate a quantitative visualisation based on particular qualitative assumptions for alternative scenarios – if the presentation of numbers is valued in itself.

However, it is impossible to do the opposite – to quantify our perspective of the future without making qualitative assumptions. Every quantification about the future is based on either explicit or implicit qualitative assumptions, i.e. narratives. Scenario planning often limits itself to alternative narratives and increasingly relies on design thinking to visualise these narratives about the future. However, it could also take one step further and quantify scenario narratives for those who prefer working with numbers.

In this essay I will explore the opportunities and limitations of asking “what if” questions about the future. I will discuss how utopias and scenarios may overlap in our attempts to think about the future. I will highlight key elements of five public governance scenarios developed by the Foresight Centre at the Estonian Parliament in order to show how the scenario planning process involves utopias and dystopias (Areguseire Keskus, 2018).

2 Scenarios as utopias

Even if in everyday conversations some assessment of the present or view of the future is dismissed as “utopian,” then actually utopias are everywhere and the most practical of people rely on utopias all the time. One way to think about utopias is that they are mental short-cuts in a world characterised by

complexity and information overload. They are simplifications of reality assuming certain developments. We can find utopias in government decisions, policy documents and, as Paul Joyce points out, particularly in strategy documents (Joyce, 2019). Particularly, in this post-truth world characterised by social media echo chambers and political polarisation one person's reality is another's utopia.

This is well characterised by recent political developments in Estonia where, after recent elections, one liberal party decided to form a government with a conservative party and populist nationalist party. The liberal party could have formed a majority government with another liberal party, but since it received an insufficient percentage of votes to appoint a prime minister in such a coalition, it decided to favour conservatives and nationalists.

Critics of the new coalition saw the whole premise that it is possible to govern with the extreme nationalist party without harming the Estonian liberal democratic order as utopian. For them, the self-interest of one politician and his party in securing the prime minister's position trumped broader interests. Fans of Machiavellian *realpolitik* saw this outcome as natural. They argued that every politician would do the same in the same circumstances. A politician's self-interest is to have power and he should do everything in his power to maximise his self-interest – of course, within the constraints of liberal democracy.

So, here we have two competing narratives with the same variable: self-interest. One narrative seems utopian to one side and another narrative utopian to the other side because of different values in interpreting the outcome. Interestingly enough, both narratives could be interpreted within a rational choice paradigm and within a game theoretic angle. This does not imply that a range of other interpretations from a non-rational choice perspective should not be explored. Quite the opposite. However, the point of this discussion is to demonstrate how "self-interest" in politics can have a multiple of meanings even within the same paradigm.

It reminds one of debates among rational choice scholars about voting. Mancur Olson once argued that voting is an irrational act from an individual rational perspective because one vote does not change the outcome and the costs of voting outweigh the benefits (Olson, 1965). Other scholars disagreed by pointing out that voters may maximise their utility by the simple act of voting, by deriving benefits from the process or voting as an act of rational ignorance where asymmetrical information may lead voters to believe that voting matters.

This advancement from basic universal rationality to more "bounded" (Simon, 1957; Cunlisk, 1996) or "adaptive" rationality (Mueller, 1986) allows us to highlight different meanings of "self-interest" in the behaviour of the

Estonian prime minister. The first “self-interest as a power grab regardless of costs” school represents a primitive application of the first lessons of Microeconomics 101 to politics. In more advanced courses concerning collective action it is best represented by a one-shot prisoner’s dilemma game where individual self-interested behaviour leads to a Nash equilibrium which represents a suboptimal outcome.

The second “self-interest balanced by broader interest” school represents more advanced rational choice scholarships which point out that self-interest cannot always be subjected to a narrow universal definition. Self-interest may be “enlightened.” In game theoretical terms, the game that is being played is a coordination such as the battle of the sexes, where multiple optimal equilibria are possible due to the incentive of the compatibility of players. This implies that the context is fundamental and constraints on self-interest much more numerous because of both formal and informal rules, information asymmetry, positive transaction costs and uncertainty.

Certainly, the self-interest in politics can be tackled in a number of other ways, but the point of this example is to demonstrate how even such a simple concept can generate alternative narratives. For some they represent reality, but for others they are either utopian or dystopian. Narratives carry utopian elements. Scenarios are based on ideal types which by nature rely on utopias. This carries a fundamental value because it generates alternative utopias and we do not have to rely on just one.

Most importantly, scenarios allow us to conduct thought experiments. Experiments are not easy to carry out and are often impossible in social sciences and difficult in public administration, especially on a large scale.

Utopias and scenario-building overlap. Some scenario planners may argue that they develop alternative futures which are believable. However, this again raises the question of a perspective. Believability may depend on a particular perspective of an individual or a group. What is believable for some is not believable for others, particularly as science fiction may be an important source of idea generation for some scenario planners. Scenario planning may have more respectability and allow us to generate ideas in a more rigorous approach than simply fantasising about the future.

If we take recent scenarios developed by the Organisation for Economic Cooperation and Development (OECD) on digital transformation as an example, then some of them seem certainly more utopian than others (OECD, 2018). Their “Corporate Connectors” scenario is probably one of the least utopian as it foresees the increasing dominance of large private digital platforms. The “Platform Governments” scenario foresees the increasing importance of government or government-supported platforms, which is more likely in

some parts of the world than others. The “iChoose” scenario emphasises the importance of privacy and individual rights to data control. However, the least likely scenario is “Artificial Invisible Hands,” which represents the radical decentralisation of governance where nobody controls the data.

Another example is four scenarios on the future government published by the European Commission’s Joint Research Centre (JRC) (Vesnic Alujevic, 2019). These scenarios to some extent overlap with the OECD’s scenarios on digital transformation as digitalisation is a fundamental factor. Their “DIY Democracy” scenario entails limited availability of public services which are replaced by the strong co-creation of services by citizens. Digitalisation facilitates grassroots initiatives, but offline engagement at a local level remains important as well.

Their “Private Algocracy” scenario is characterised by the dominance of large private digital companies where citizens’ interests are derived from their data profiles. The “Super Collaborative Government” scenario combines the rise of artificial intelligence (AI) with a citizen-centric government. Citizens can engage seamlessly in decision-making through digital platforms. The “Over-Regulotocracy” scenario visualises the nationalisation of leading digital platforms under democratic governments. However, citizens have difficulty obtaining rights and accessing good services because of bureaucratic overreach.

Technology-centricity in the JRC scenarios is certainly a limitation as institutional constraints and enablers are not fully explored. Even if some OECD and JRS scenarios may seem from our current perspective utopian or dystopian, we cannot dismiss them as impossible because the future remains uncertain. Obviously, utopias not only exist in scenarios but can be found everywhere.

3 Governance scenarios

In Estonia, we did not take a technology-centric approach to the co-creation of governance scenarios. Technology remains an important ingredient, but institutional variables are the key. We also did not follow fully the advice of the late Christopher Pollitt who pointed out that “Big models, such as NPM (...) often do not take one very far” (Pollitt, 2011). At the Foresight Centre at the Estonian Parliament with the assistance of many experts and scholars (their names are indicated in the acknowledgements) we generated five alternative governance scenarios (Arengeuseire Keskus, 2018; Kitsing, 2018).

On the one hand, they rely on big models and, being ideal types, are utopian or dystopian depending on perspective. This creates a certain universality. In principle, the scenarios can be applied to other countries as well. However, the degree of utopian or dystopian elements depends on context. A decentralised

governance scenario may seem most utopian in Estonia, but it is probably less – if not least – utopian in Switzerland.

The governance scenarios combine both external and internal factors which may or may not contribute to the realisation of specific scenarios. Fiscal pressures and tough budget constraints limit the range of possible scenarios. However, budget constraint can be both endogenous and exogenous. It can be the outcome of developments in the world economy, reduction in the inflow of structural funds of the European Union (Estonia still is and will remain for years to come a net recipient of EU structural funds), consequences of Brexit and a number of other developments that Estonian policy-makers do not control and influence.

At the same time, the budget constraint can be self-imposed and thus endogenous. Policy-makers with certain ideological leanings may become dominant in the policy sphere, and hence impose strict limits on public spending and reduce the number of government officials. The bottom line is that scenarios emerge as a result of endogenous and exogenous, as well as more and less objective and subjective, factors.

Furthermore, endogenous and exogenous drivers of change are constantly interacting. Hence, exogenous drivers will also impact on endogenously set priorities. As Pollitt (2011) points out, universal best governance models do not exist. The real-life developments will quite likely lead to a combination of various scenarios discussed below. However, the use of ideal types in the form of scenarios offers clarity and simplicity which contribute to the understanding of the interaction of key drivers and potential outcomes.

Five scenarios allow us to understand the interplay of different approaches to public sector governance and potential routes to realising different scenarios. Scenarios are specifically meant for policy-makers in order to broaden their horizons and generate useable, concrete policy solutions for advancing governance. Scenarios serve as a risk assessment tool as they identify potential bottlenecks in the implementation of policy. Hence, one of the central questions is which conditions facilitate certain breakthroughs in governance reforms.

In other words, scenarios are not an end in themselves but a tool for citizens, politicians, officials, experts, activists and other stakeholders for advancing public governance. Above, I argued that scenarios are like utopias. In essence, they are an advancement of governance through utopias.

The real value of scenarios depends on their use. Will scenarios contribute to a clearer strategy formation in public governance and will they help to generate new ideas for better governance? The fundamental goal is to make governance more agile, equitable and efficient. This implies that scenarios are normative. They are also provocative and utopian. However, all scenarios

consist of costs and benefits. Whether the costs exceed the benefits or vice versa in the context of a specific scenario depends on perspective.

Certain current trends may also indicate that realisation of some scenarios is more probable in the future. Other scenarios are plausible but not probable. Nevertheless, it does not imply that the aim of the exercise is to predict the future. First, predicting or forecasting future developments, especially in the long run, has severe limitations, as has been discussed above. Hence, it is important to consider not only small variations, but fundamentally different developments which are exogenous. We do not know whether scenario A or scenario B will be realised in the future. However, we can comprehend to some degree the implications of scenario A and those of scenario B. Scenario planning as a method is about developing alternative, equal scenarios. Most importantly, public governance should be prepared for different developments.

Second, the realisation of a specific scenario or combination of scenarios depends on exogenous factors. A precondition for realising certain developments is priority-setting by policy-makers and mobilisation of resources for that purpose. Certainly, this is a necessary but not sufficient condition. Unintended consequences stemming from uncertainty may undermine even the best plans. The road to hell is paved with good intentions. Nevertheless, there are certain benefits for a pro-active approach to policy-making rather than a reactive or fatalist state of mind. It is about mental models which are prepared for the emergence of new external environments. Different scenarios should contribute to policy space which is more adoptive and adaptive to changes.

3.1 Ad Hoc Governance

This scenario combines tight budget constraint, centralised and fast decision-making processes. The budget constraint needs either to cut public sector spending because of external or internal developments or to have a dominant ideological position among decision-makers that public sector governance must be managed within limited financial resources. The scenario is characterised by top-down fast decision-making in order to overcome economic crises and to exploit emerging new opportunities. Budget constraint also implies the privatisation of public services in some areas, which indicates that a government does not have sufficient leverage to change the situation in every area.

Citizens may benefit from this scenario as long as government priorities match their own priorities. However, they are left out of the decision-making processes as to involve them would significantly slow down the procedure. Citizens have also to deal with uneven delivery of public services where some

services advance rapidly while others do not get enough attention and deteriorate as a result of resource constraints. Dissatisfied numbers of citizens may grow as a result of suboptimal services and inappropriate government priorities. The scenario may become a self-fulfilling prophecy where dissatisfaction with the limited involvement of citizens feeds into a need to keep decision-making centralised as policy-makers are afraid of opening the so-called genie's bottle.

Since the budget imposes significant constraints, ministries and agencies will be consolidated and the number of ministers reduced. These processes will simplify decision-making. Cost-cutting also implies that the proportion of public sector employees will be reduced across the total workforce. However, as the government will continue supporting some areas on an ad hoc basis, public sector expenditure as a percentage of gross domestic product (GDP) may increase. Furthermore, it can be assumed that the central government will increase public sector debt to GDP ratio. Government budgeting will be made more results-driven.

The role of the legislative sector in setting the agenda for strategic priorities will be modest. Parliament will be an instrument of representative democracy rather than participatory democracy. The role of local governments will be reduced. The central government will try to reduce the number of local governments by exploiting fiscal incentives. The fiscal autonomy of local governments will be reduced. Local governments will become basically agents of central government, which is their main function – rather than representing the interests of the local population and getting them involved in decision-making processes. This governance framework implies that in principle it is easier to implement strategic projects in some areas as long as budget constraints allow that. For the delivery of public services, it implies uneven development where some areas are prioritised while others lack the necessary resources. On the one hand, ad hoc governance values experimentation with new services and its delivery methods. However, focus is constantly shifting from one priority to another, which challenges the implementation of new ideas.

Digitalisation is valued in this scenario because it allows cost-cutting and the starting of new projects. It facilitates improvements in service delivery and data collection for policy-making, as well as directing citizens to needed services and reacting to changing circumstances. Since the budget imposes significant constraints and decision-making is centralised, then an ad hoc governance scenario implies that most services are standardised and special circumstances are rarely considered. Standardisation implies so-called forced digitalisation where the use of digital services might be the only option. On an ad hoc basis, some areas will receive special attention and these pet projects will be developed differently.

The government will prioritise the use of big data, but since the approach is not systematic many institutional barriers do not allow the benefits to be exploited. The use of open data does not attract sufficient systemic attention, which implies no improvement in comparison with other countries. The combination of data from different public and private sources is possible in some areas but not in others. The government does not see the whole picture in its data policy by focusing on some areas but ignoring others. The government's digital identity used in different services will increase, but unevenly. Various private and public sector digital identities will emerge, and many citizens will rely increasingly on private sector solutions.

3.2 Night-watchman State

This scenario combines strong budget constraint with centralised and calculative decision-making processes. The underlying aim is to reduce the role of the state in many areas and focus on the areas where state intervention and the provision of services are absolutely necessary. The government will cut expenditure, reduce the number of public sector employees and will privatise services. The scenario implies that a systemic framework will be created for governance of the public sector where the limited role of government intervention in the private sector and the lives of individuals is the key priority.

Citizens will have considerable freedom in directing their lives, but their opportunities to get involved in public sector decision-making processes are limited to elections. Access to public education and health will be limited. The scenario also implies that the government response to substantial changes in the external environment such as environmental, geopolitical and economic changes, will be limited because of narrow policy-making perspectives and small public administration capacity. At the same time, the dominant fiscal prudence may allow them to react properly to certain external economic shocks such as a global financial crisis.

Since severe budget constraints mean significant self-imposed fiscal constraints, ministries and agencies will be substantially consolidated and the number of public sector employees significantly cut. The government wants Estonia to have the lowest public sector expenditure as a percentage of GDP and the smallest proportion of public sector employees per total workforce. The government will keep the budget balanced and will furthermore reduce the already low public sector debt-to-GDP ratio.

The role of the prime minister will increase in this scenario. Responsibility for managing the public sector will be clear and simplified, which may imply greater trust. However, decision-making will be efficient in predictable

circumstances but may face considerable delays and bottlenecks in unforeseen circumstances. The parliament does not play a substantial role in this scenario. Its budget will be cut and the number of members reduced by one-third. Furthermore, term limits will be imposed which will reduce the number of professional politicians in the parliament but may make decision-making more complicated in areas where political skills are required. The self-imposed budget constraint implies that the role of local governments and their fiscal autonomy will be reduced. Their number and employees will decrease.

The government in principle will not engage in large public sector projects because the risk-taking involved and management of such projects do not fit with the role of the minimalist state. Public services are standardised and characterised by universal basic services with no allowance for special requirements. Every citizen has its own public service account where they can see financial limits and options for service use. The government issues vouchers for education, social and healthcare services which can be used for both private and public providers. This implies that service delivery can vary significantly across geographical regions and socio-economic groups resulting from differences in wealth and social capital.

On the one hand, digitalisation is valued in this scenario because it enables cost-cutting and reduces bureaucracy. On other hand, several barriers will be created for digitalisation because of privacy and security concerns. The minimalist government is worried about data collection because it might increase government intervention in individual lives and the private sector.

As cost-cutting is a key driver of digitalisation, it would imply a high degree of standardisation and universal basic solutions. The lack of customised solutions which consider specific needs may lead to dissatisfied users. Both open data and big data use have not advanced sufficiently. Barriers stem from institutional factors as government is concerned about the misuse of data. The combination of different public and private sector databases is mired in complexity or the impossible. The use of a government-issued digital identity is limited because of privacy and security concerns. An increasing number of citizens will rely on private solutions, including those provided by global digital platforms from the United States and China.

3.3 Entrepreneurial State

This scenario combines, first, strong centralised decision-making with generous budget constraints. The flexibility of resources allows the government to invest more in service delivery as well as large projects, often in the form of Public Private Partnerships (PPP). The government will behave as a large

enterprise by developing and investing in certain key areas. The government's mission is to increase economic development and improve the country's position in the international division of labour.

The risks involve over-investment of public funds in failed projects which will become so-called white elephants. Radical external shocks may impose severe budget constraints which, in turn, may mean the activation of an "Ad Hoc Governance" scenario instead of an entrepreneurial state. This scenario is also sensitive to changes in government as well as the quality and strategic agility of government's top management.

Since flexible budget constraints imply more public sector investments and spending, the proportion of public sector employees in the total workforce and public sector expenditure as a percentage of GDP will increase. The central government will borrow funds for its priority projects, which implies an increase in the public debt-to-GDP ratio as well as annual budget deficits.

The role of prime minister will increase and he will act as chief strategist in the government. Some ministries and agencies will be consolidated, while new agencies might be created for developing priority areas such as infrastructure projects. The involvement of different stake-holders and interest groups in the decision-making processes will be reduced because the government values fast processes. The role of the parliament will be secondary to that of the executive branch as the logical implications of the scenario do not support a long-term calculative approach with unlimited discussions. Some parliamentary commissions may become more important sources of legitimacy than the general assembly.

The top-down logic of the scenario also implies that the number of local governments and their fiscal autonomy will be reduced. An exception will be the governments of the two largest cities of Tallinn and Tartu with which the central government is interested in cooperation involving large-scale projects. This also implies that this scenario is very favourable for large-scale public investment projects such as a tunnel between Helsinki and Tallinn and a four-lane highway between the two largest cities. The scenario also enables increased spending on public service delivery, where priority areas such as education will receive most of the investment. As the development of services will remain uneven due to priorities, these differences may cause dissatisfaction among citizens.

Digitalisation plays a fundamental role in this scenario because it allows data to be collected, better services to be offered and increases anticipatory policy-making. As government spending is generous and fast decision-making is appreciated, digitalisation can occur rapidly in many areas. However, government priorities imply that some areas receive more funding than others,

which will lead to uneven outcomes. Over-investment and misallocation of investment may also lead to failures in large-scale projects.

Big data and open data use is highly encouraged by breaking down so-called silos among agencies. Government designs policies for the combination of different public and private databases. The government's mission is not only to focus on domestic projects but to enhance digital data projects globally in order to understand trends and developments worldwide. This means active cooperation with international organisations, private and public sector actors.

One of the key priorities is to develop further Estonian government-issued digital identity by offering solutions globally. Government prioritises e-residency as a global digital platform as through this platform other Estonian public sector platforms can be diffused to other countries.

3.4 Caretaker State

This scenario combines budget constraint, centralised and analytical decision-making processes. Improved living standards and economic development mean increased demand for high-quality public services. The government aims to meet this demand by increasing social spending and employing more officials. The main mission of a government is to improve the wellbeing of its citizens. For these purposes, government intervenes in many areas of life, protects people from evils and ills, and regulates different economic and social activities.

Citizens benefit from good access to high-quality education and health care. At the same time, their ability to shape public governance is limited. Government intervention in private lives may create the feeling that citizens live in a police state. The focus on current issues regarding citizens' wellbeing may also imply that the government may lack the capacity to deal with large-scale strategic challenges, particularly in the external environment's top management.

Since flexible budget constraints imply more public sector investments and spending, the proportion of public sector employees in the total workforce and public sector expenditure as a percentage of GDP will increase. The central government will borrow funds for improving the wellbeing of citizens. This implies an increase in public debt-to-GDP ratio as well as annual budget deficits.

Governance will be centralised but analytical, and will focus on increasing legitimacy. The number of regulations will increase as the government tries to solve problems in every area. The assessment of the impacts of various laws and regulations, which keep government departments busy, will increase. The involvement of different stakeholders and interest groups in the decision-making processes will be increased at least formally, because the government

values legitimacy. The role of the parliament will be an important source of legitimacy with detailed parliamentary discussions. However, key decisions will in fact be made by the executive branch.

The top-down logic of the scenario also implies that the number of local governments and their fiscal autonomy will be unchanged. However, their importance will be emphasised in political rhetoric. This also implies that the scenario is unfavourable for large-scale public investment projects because the government is concerned about the environmental impact and wellbeing of citizens affected by those projects. Analytical, calculative decision-making processes and an increase in regulations will also reduce the likelihood of such projects.

The scenario also allows for increased spending on public service delivery, where the focus is on improving both the quality of and access to services. As the development of services will even be due to a holistic approach, satisfaction among citizens will grow.

Digitalisation plays an important role in this scenario because it helps to collect data, offer better services, direct citizens towards better choices and enhance anticipatory policy-making. As government spending is generous and analytical decision-making is appreciated, digitalisation will occur evenly in different areas. However, technological lock-in and path-dependence may lead to difficulties in adopting solutions in some areas.

Big data use is encouraged by breaking down so-called silos among agencies. Government designs policies for the combination of different public databases. However, the government is reluctant to cooperate with the private sector in this field because of risks and security concerns. The government does not encourage open data projects for the same reason. Instead of offering public data to the private sector, the government will design incentives and regulations for ensuring access to private sector data.

The government's mission is to focus on domestic services and not globally to enhance digital data projects, which will carry unknown risks. This implies that one of the key priorities is to develop further Estonian government-issued digital identity for domestic users. E-residency as a global digital platform will be closed down because domestic online service delivery may suffer from new risks and the overcrowding of platforms.

3.5 Networked Governance

This scenario combines generous budget constraint with de-centralised and calculative decision-making processes. The government aims to get citizens involved in decision-making processes and public service delivery through

co-creation. For these purposes, decisions are made in bottom-up fashion, closest to citizens and without unnecessary bureaucracy.

Citizens benefit from opportunities to get involved in policy-making as well as in service delivery if they wish. Their ability to shape public governance is visible and actual. At the same time, it offers more opportunities for active citizens than passive. Communities with stronger social capital may benefit more than areas with a limited ability to cooperate. Government spending may not be able to reduce the gap.

Since flexible budget constraints imply more public sector investments and spending, the proportion of public sector employees in the total workforce and public sector expenditure as a percentage of GDP will increase. The growth is unevenly distributed but comes primarily from local governments which will borrow funds. It implies an increase in public debt-to-GDP ratio as well as annual budget deficits.

Governance will be de-centralised but calculative, and will focus on increasing legitimacy and satisfaction among citizens. The involvement of different stakeholders and interest groups in the decision-making processes will increase considerably. The governance is pluralistic and diverse. Local governments and the parliament will considerably limit the powers of central government. In some areas, the power of “silos” is dominant, while other areas are characterised by loose networks which collaborate across different domains.

The role of the parliament will be an important source of legitimacy, and its role in strategic decision-making will be increased. As long as severe budget constraint prevails, it is possible to use more resources for improving the quality of decision-making by hiring experts and encouraging the wider public to participate.

The bottom-up logic of the scenario also implies that the number of local governments will not be reduced and their fiscal autonomy will grow. They will take over crucial functions of central governments and will become true local governments. This scenario implies that it is unfavourable for massive public investment projects because consensus is difficult to reach and different stakeholders have the ability to block these projects for various reasons.

The scenario also allows for increased spending on public service delivery. However, a bottom-up approach suggests different abilities to use these resources well. Some areas will be innovative while others will lag behind. As the development of services will be uneven due to a decentralised approach, satisfaction among citizens in some areas will grow, while in others it will be reduced.

Digitalisation plays an important role in this scenario because it allows for data collection, better services to be offered and involves citizens

in policy-making. Combining government spending with decentralised decision-making, digitalisation will occur unevenly in different areas. Different governance models will emerge where some rely more on public sectors while others engage in the private sector and with volunteers.

In this scenario, a direct trade-off between efficiency and equity may not be present if the increasing number of digital platforms in governance allows for a greater use of co-creation of public services by citizens. It is based on the assumption that open government data are made available and their use is encouraged. Big data and open data use is highly encouraged as well as combining different public and private databases. However, many different models will emerge in their use. Digital identity and e-residence will be developed further by involving numerous stakeholders from the public and private sectors.

The following table summarises the key points concerning governance and the digitalisation of five scenarios.

Table 1 Summary of five governance scenarios and digitalisation

Scenario	Governance	Digitalisation
Ad Hoc Governance	Centralised and fast decision-making under strong budget constraints. Executive branch-centric, reduced role for the parliament and local governments.	Uneven digitalisation. Cost-cutting and standardisation in most areas.
Night-watchman State	Centralised and calculative decision-making under severe budget constraints. Executive branch dominance, minimal role for the parliament and local governments.	Limited digitalisation aimed at efficiency gains. Privacy and security concerns.
Entrepreneurial State	Centralised and fast decision-making under severe budget constraints. Executive branch aims at strategic agility and acts as a corporation. Limited role for the parliament and local governments.	Strategically important areas are the priority. Internationalisation of government platforms.
Caretaker State	Centralised and analytical decision-making under severe budget constraints. Government focuses on the welfare of all citizens. The parliament and local governments play a formally important role but not in reality.	Holistic digitalisation and quality of services and preventive policies through social analytics.
Networked Governance	Decentralised and analytical decision-making under severe budget constraints. Executive branch has limited role. The parliament, local governments, communities and citizens play an important role.	Diverse digitalisation with different models. Co-creation of services and many tools for participation.

Source: Compiled by the author on the basis of Arenguseire Keskus, 2018.

4 Trade-offs in governance digitalisation

Even though the scenarios were developed for the Estonian context they do offer some universally applicable trade-offs concerning the future of governance. The Estonian scenarios also overlap with the OECD's and JRC's scenarios to some extent – even though they are less technology-centric and emphasise institutional factors as key drivers. For instance, the Estonian “Entrepreneurial State” scenario has characteristics in common with the OECD's “Platform Governments.” The JRC's “Over-Regulatoocracy” scenario has many elements in common with the Estonian “Caretaker State” scenario. The dominance of private digital platforms as envisaged in the OECD's “Corporate Connectors” and in the JRC's “Private Algocracy” scenarios is most likely in the Estonian “Night-watchman State” scenario. The Estonian “Networked Governance” scenario has many elements in common with the JRC's “Super Collaborative Government” and the OECD's “Artificial Invisible Hands” scenarios.

The key difference is that both the OECD and JRC scenarios place much greater emphasis on digitalisation than the Estonian scenarios. It is completely understandable in the case of the OECD scenarios because these are digital transformation scenarios which also discuss some aspects of governance. However, the JRC's scenarios are government scenarios where technology-centricity may narrow down a range of possible and plausible alternatives. Particularly so because institutional constraints are not likely to be broken down in 10–15 years.

In this sense, the Estonian scenarios are more general and offer a wider range of alternatives. For instance, both the JRC's “DIY Democracy” and “Super Collaborative Government” scenarios could be sub-scenarios of “Networked Governance”. The latter would work under severe budget constraint while the former would in the case of tight budget constraint.

Why did the Estonian scenarios focus more on institutional rather than technological drivers? In order to understand this it is important to understand trade-offs concerning digital governance. First, various initiatives of digital governance have been around for more than two decades. A vast body of policy and academic literature has emerged on how to plan and implement digital governance in different countries during this time, as digitalisation has a promising appeal for making governance more efficient, equitable and agile.

Yet the progress of digital governance has been slow and uneven. This is certainly so if different countries are compared. The United Nations E-Government Survey demonstrates that there is a tremendous gap between

countries in the implementation of government online, even though the World Wide Web has been around for almost 30 years (United Nations, 2016).

The digitalisation gap is also wide in comparing different aspects of digital governance within countries. While some services are highly digitalised, others are not. In general, digital service delivery has received more attention than online political participation. This can be explained by different the emphasis of alternative scenarios.

Second, technological advancements are often seen as revolutionary. In discussions of digitalisation and its impacts terms like “digital revolution” are used. In fact, many changes enabled by the use of digital technologies are evolutionary because of institutional constraints. However, the main point is that digitalisation of governance takes time in an evolutionary rather than revolutionary process. Often the building blocks for successful public sector digitalisation outcomes were laid decades ago.

For example, even seemingly revolutionary developments such as internet voting have evolved over time. Almost 50% of votes were submitted online in the last Estonian European Parliament elections in May 2019. However, internet voting was launched in 2005 when only 2% of votes were submitted online. This a typical story of the diffusion of innovations which was described by Everett Rogers already in 1962 where innovators are followed by early adopters and then the early majority in adopting new innovations (Rogers, 1962).

4.1 Institutions

So why is the process of the adoption of digital technologies so slow? The simple answer is because of institutions which have a strong impact on both demand and supply of technologies. Different scenarios imply variation in institutional arrangements.

Often digital governance is analysed from a perspective of (utopian, if you will) technology optimists, if not technology determinists. They tend to believe in certain dystopias or utopias that technology itself is sufficient for implementing changes. For instance, the internet may mean that the need for certain organisations may disappear. Instead of voting for members of parliament every four years, people could vote directly online for various legislative proposals. Instead of government statistical offices, people could directly use data generated by various online transactions.

However, technology is a necessary but not sufficient ingredient for the digitalisation of public sector governance. The diffusion of digital technologies depends on institutions and the changes to them. Institutions are both formal

and informal rules of the game (North, 1990). Public sector governance is interdependent on formal institutions such as laws and regulations, as well as on informal institutions such as habits, norms, customs and values.

Furthermore, the diffusion of digital technologies takes time because the interaction of various institutions and their impact on digitalisation stems not from a single rule but from the sum of rules of the game and from the specific context in which these rules operate. Certainly, institutions are products of human actions, but that does not imply that they can all be changed overnight to increase digitalisation. Institutions affecting digitalisation, as in any other area, are complex, built through time and may have unanticipated developments. Therefore, institutional change is often gradual. This helps us to understand why digitalisation of public sector governance is an evolutionary process.

In addition to institutional complexity, digitalisation is affected by path-dependence. Digital government efforts in developed countries have faced challenges from so-called legacy information technology systems. Technology is changing rapidly, but governments cannot update their systems fast because they are dependent on old systems and lack the resources for a complete overhaul. At the same time, some emerging democracies such as Estonia in the 1990s benefited from not having legacy systems, and this allowed them to start from scratch.

All of this implies that technology use and the digitalisation of governance follow different paths in different political, economic, social and cultural contexts. One limited but stylised way is to take a rational choice approach to show how through political institutions “winners and losers from the technology can translate their preferences into influence” (Milner, 2006). Losers from technology adoption may use political institutions to slow down the digitalisation. This begs the question about the role of decision-makers and to what extent they can impact on digitalisation in specific institutional contexts, as was highlighted by the five scenarios.

Often individual decision-makers and governments receive credit for successful outcomes in public sector digitalisation. Usually, their insights and strategies are seen as a reason for the success. At the same time, many grand government digitalisation projects have also failed and ended up creating so-called white elephants – costly projects that are no use to anyone.

On the basis of various digitalisation efforts it seems that governments have to find a certain balance between top-down decision-making and bottom-up entrepreneurial discovery processes in digitalisation. Relying more on bottom-up decision-making processes also facilitates a degree of entrepreneurial discovery in the public sector which is an important ingredient

for the digitalisation of governance. Of course, it also carries risks such as rent-seeking. This means that public means are used for private benefits.

Nevertheless, policy entrepreneurs always operate in institutional contexts. In this sense the entrepreneurial discovery process and policy entrepreneurship are important, but the role of policy entrepreneurs is always a “soft” one and “institutional entrepreneurship is rarely a case of individual heroism” (Djelic, 2010).

4.2 Co-creation

Furthermore, institutions should not be seen only as constraints, but also as resources to be utilised by policy entrepreneurs. This is particularly important for inter-agency cooperation or the ability of government to work across so-called silos, and cooperation between the private and the public sectors. Without such cooperation there will be some islands of excellence in digitalisation but general development will be uneven.

Greater cooperation also allows one to take advantage of digitalisation and benefit from network governance because “the future of government relies not simply on greater efficiency, but also on increasing capacity to work effectively across agency boundaries to gain traction on pressing, inherently cross-boundary challenges” (Fountain, 2016). This requires coordination and proper incentives for decision-makers at various levels, but not top-down management (Laegreid et al., 2015).

The tension between efficiency and equity in governance has been created by governments which have focused more on efficiency of service delivery rather than citizens’ engagement in the broadest sense. Nevertheless, the emphasis on co-creation of public services and approaches such as government as a platform as well as participatory governance may reduce these tensions (Janssen and Estevez, 2013; Linders, 2012; Paulin, 2018).

Obviously, this depends on what kind of government platforms will become dominant, as discussed in various Estonian, JRC and OECD scenarios. Large centralised platforms are likely to be more efficiency driven, while decentralised platforms may be capable of enhancing both efficiency and equity. Top-down platforms focus on uniformity (Kenney and Zysman, 2016).

More decentralised platforms can take advantage of pluralism and facilitate what Ostrom (1972), called “co-production of public services” by observing that citizens’ cooperation created more value for law enforcement services on the basis of policing in Los Angeles in the early 1970s. This insight corresponds well with the network-based governance scenario. In this scenario governance need not necessarily be conducted exclusively by governments. Private

firms, associations of firms, non-governmental organisations (NGOs) and associations of NGOs all engage in it, often in association with governmental bodies, to create governance, sometimes without governmental authority. Most importantly, a direct trade-off between efficiency and equity may not be present if the increasing number of digital platforms in governance allows for greater use of co-creation of public services by citizens as envisaged in the networked governance scenario.

5 Conclusion and implications

Many experts and scholars emphasise certain trends such as the emergence of network governance and the death of New Public Management (Dunleavy et al., 2006). However, the future of governance is uncertain. Instead of emphasising one prediction or forecast on the basis of previous developments and current trends, it would be wise to think about it in terms of alternative scenarios.

Our current understanding may indicate that some of these scenarios are more or less likely depending on the specific economic, social and political context. However, our understanding of context and context itself can change. The scenario planning approach allows the breaking up of linear logic in thinking about the future and widening the view of potential futures of governance. In other words, scenarios can be used as thought experiments for exploring the future of governance.

This is a most important implication for public governance scholars. Scenarios often have a systemic approach for engaging in positivist theorising. Instead of relying on one theory, an issue can be explored from different theoretical angles. In many ways, the Estonian governance scenarios discussed in this chapter relied on different theoretical and empirical research which was operationalised in the Estonian context.

For those scholars who are interested in offering policy solutions, scenarios allow us to conduct thought experiments. Experiments in social sciences can be conducted usually on a small scale which itself creates biases and limitations. Large-scale experiments are costly – both directly and indirectly. Scenarios allow us to play out possible and plausible developments in our heads – however utopian or dystopian they may seem. If the desired approach is to offer policy recommendations from one angle, then scenarios at least allow us to stress-test how future-proof recommendations offered by scholars are. By asking “what if...” questions, it is possible to test the robustness of proposed policy solutions.

As far as policy-makers, students and the broader public are concerned, scenarios are a good way to frame debates on governance and broaden horizons. However, the marketplace for scenarios is characterised by a mismatch between supply and demand. Supply is more important than demand because demand for scenarios is really a “derived demand,” i.e. scenarios are not needed for their own sake. Many substitutes are available such as linear forecasts, single vision-based strategies or whatever ideas are cooked up in the echo chambers of the so-called post-truth era. Communication of scenarios is always more difficult than one-line policy suggestions or single number-based forecasts.

Firstly, this implies improved attention to the communication of scenarios. One approach is to combine scenario planning with design thinking. For instance, the Danish Design Centre created four scenarios for the future of health care where people can physically enter into the different futures in central Copenhagen by smelling, touching, hearing and feeling what they mean.

Secondly, it implies constant stakeholder engagement in research projects. If the aim is to help to improve policy, then policy-makers and other stakeholders have to be engaged in every step of the process. They have to be instrumental in deriving policy implications from scenarios.

Last but not least, scenarios and utopias about governance must play a central role in classrooms and lecture halls. Social science classes in particular rely on overly rationalistic approaches to thinking about the future. Scenarios should be part of a range of alternative ways of approaching the future. They would allow us to bring a certain playfulness and social interaction to the classroom as many different role-playing exercises can be carried out on the basis of scenarios.

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