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EUROPEAN COMMITTEE ON DEMOCRACY AND GOVERNANCE (CDDG)

PRELIMINARY STUDY ON THE IMPACT OF DIGITAL TRANSFORMATION ON DEMOCRACY AND GOOD GOVERNANCE

Secretariat Memorandum
prepared by the
Directorate General of Democracy
Democratic Governance Division

Introduction

According to its terms of reference for the biennium 2020-2021, specific task (i) of the European Committee on Democracy and Governance (CDDG) reads as follows:

(i) Building on its previous work on e-democracy and taking into account the outcome of *the 129th Session of the Committee of Ministers in Helsinki, prepare a study on the impact of the digital transformation, including artificial intelligence and automated decision-making, on democracy and good governance, also with a view to contributing to the work of the CAHAI.*

The preparatory work to complete this task is being carried out by the working group on democracy and technology (GT-DT), as described in document CDDG(2020)15.

The present draft is the result of three working group meetings held in 2020. The chapter on good governance is largely based on an expert paper provided by Prof. Ines Mergel, expert consultant.

Action required

The CDDG is invited to examine the study, provide additional input to it and guidance to the working group on democracy and technology, especially as regards the conclusions, in view of its final approval at the 13th plenary meeting of the CDDG.

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PART I – GENERAL ISSUES

1. Introduction

Digital transformation has an impact on all aspects of life, from the economy to government, from geopolitics to the way in which ordinary people interact. It is proceeding at a very fast pace. There is an impression that some technologies, especially artificial intelligence, may soon bring about a revolutionary change for which people, institutions and societies are not yet fully prepared.

Council of Europe member States need to identify the challenges posed by digital transformation and to be equipped to take advantage of the opportunities it offers.

The Council of Europe has already started a reflection on these matters. For instance, it has worked on issues such as e-democracy, e-governance, internet governance, the use of artificial intelligence in criminal law, preventing discrimination due to biased algorithms, and the manipulative use of social media in electoral campaigns. It has also set up a number of structures to look into different aspects relating to technology and its impact on human rights, democracy and the rule of law.

In its terms of reference for 2020-2021, the CDDG has been asked to draft a study on the impact of digital transformation, including artificial intelligence and automated decision-making, on democracy and governance, also with a view to contributing to the work of the CAHAI.

This subject, so far, has not been dealt with in a comprehensive manner by academic institutions, think tanks or international organisations. The study by the CDDG would, therefore, have an added value in itself.

In addition to contributing to the work of the CAHAI, the study could also identify some areas for further follow-up by the Committee of Ministers and/or the Centre of Expertise for Good Governance.

2. Framing the subject: democracy, technology and data

Democracy, the respect of the rule of law and the protection of human rights are inextricably linked, and one is not possible without the other.

The 21st century is often called the digital age. The pervasiveness of digital technologies has a wide-ranging impact also on the public sphere, political affairs and public decision. In short, on democracy and governance.

In the last two decades democracies around the world are experiencing crises. It is a matter of debate what role digital technologies play with regards to this trend. Democracy is not a static but a dynamic system in continuous evolution. In this context, digital technologies might be an opportunity rather than a threat, helping to reinvigorate political parties, the support to which has been sharply declining, and to promote citizens' engagement with the public sphere.

Digital transformation refers to the use of digital technologies, tools and applications of any kind: from digitisation of processes to blockchain and artificial intelligence. Applied to government and public administration, digital transformation provides new ways of functioning, engaging with citizens and civil society at large and providing services to the public.

Artificial intelligence is often referred to as the game-changer, for its enormous economic potential. Although the Council of Europe is devoting increasing attention to it,

the present study will take a broader approach and look at the potential impact of artificial intelligence on democracy and governance amongst other technologies.

If digital technology is the engine of transformation, **data** is the fuel. In democratic systems, several issues concerning data should be of high concern.

One concern is **data quality**, including bias in datasets. Recent studies show that datasets used for training algorithms are often biased. If used by public authorities to support their decision-making processes, biased algorithms would have a discriminatory impact and further cement existing inequalities.

Data security is another concern, as data needs to be stored safely, protected from unauthorised third-party meddling or theft.

Another issue is **access to data**. Public authorities regularly collect data. However, the data might not be easily accessible to citizens or the private sectors. In addition, the data might not be in a machine-readable format, placing additional hurdles to its use. Open data policies and clear rules on access to data and data sharing should be in place.

Most data, however, is collected by private companies for profit making purposes. These immense datasets are thus not available for the **public good**. Clear rules on how public authorities might access privately collected data for the design, development and implementation of service delivery and policy making should be defined.

And how is it possible to ensure that also public authorities use data for the public good, as opposed to using it to manufacture consent and perpetuate their own power?

This study will examine some of these questions, trying to gauge the impact of digital transformation on democracy and governance. It will identify risks posed by digital technologies and suggest ways to mitigate them. It will also highlight how digital technologies create opportunities for further strengthening democracy and delivering better governance, in line with the 12 Principles of Good Democratic Governance.

3. The impact of Covid-19 on digitalisation

The Covid-19 pandemic has accelerated the digitalisation of the public sector, especially the public administration. During the lockdowns that were introduced in Spring 2020 to respond to the first wave of the pandemic, Council of Europe member States had to find new ways to ensure the uninterrupted functioning of key institutions and continue to deliver services to the public.

Thus, a number of elected assemblies and other bodies met by videoconference and introduced online voting; bureaucratic procedures were digitised; public servants – at all levels of the administration – were asked to work from home; a number of services to the public were digitalised in record-time.

This process did not affect only the machinery of the State: being unable to organise public gatherings, political parties campaigned online; likewise, civil society organisations mobilised online.

This acceleration of digitalisation was not equally straightforward in all Council of Europe member States: some were better equipped than others to introduce the new measures, due to existing legal and administrative regulations, work culture, level of digital literacy and availability of the technological infrastructure.

This study will include references to the innovations introduced as a result of the pandemic even if, at this stage, it is too early to know the extent to which they will have a durable legacy.

4. Relevant Council of Europe work

The Council of Europe has been a pioneer in identifying the opportunities and risks that digital technologies present in the field of democracy and governance.

The work of the Council of Europe in the field of e-governance was initiated under the leadership of the **Integrated project "Making democratic institutions work"** (2002-2004). In February 2004, the Committee of Ministers of the Council of Europe adopted the terms of reference for the Ad Hoc Inter-Sectoral Group of Specialists on e-governance (IP1-S-EG). On the strength of its work, in 2004, the Committee of Ministers adopted **Recommendation Rec(2004)15 on electronic governance ("e-governance").**

Subsequently, the **Good Governance in the Information Society Project** (2004 – 2010) focused on how new information and communication technologies (ICT) affected the practice of democracy in Council of Europe member states. Its main aim was to provide governments and other stakeholders with new instruments and practical tools in this field and to promote the application of existing instruments and of good and innovatory policy practice. The Committee of Ministers also set up a specific structure, the Ad hoc Committee on e-democracy (CAHDE, 2006-2008). Its work ushered into the first international legal instrument to set standards in the field of e-democracy.

The Council of Europe is the only international organisation that has set intergovernmental standards in the field of **e-voting**. The first text on this matter was recommendation Rec(2004)11 of the Committee of Ministers on legal, operational and technical standards for e-voting. Since its adoption, the Recommendation has been subject to biennial review meetings. In 2014, when it became clear that after ten years there was a need for updating Rec(2004)11, the Ad Hoc Committee of Experts on Legal, Operational And Technical Standards for E-Voting (CAHVE), consisting of government appointed representatives from members States and organisations with direct experience or specialised knowledge on e-voting, was set up and given the mandate to revise the standards and prepare a new recommendation in the light of the new developments in the field of new technologies and elections. **Recommendation CM/Rec(2017)5 of the Committee of Ministers to member States on standards for e-voting** aims to harmonise the implementation of the principles of democratic elections and referendums when using e-voting, thus building trust and confidence of voters in their respective voting process and methods.

The relation between democracy and technology has been high on the agenda of the **World Forum for Democracy** (WFD). In 2013, the WFD dealt with the topic: *"Re-wiring Democracy: connecting institutions and citizens in the digital age"*.[1] The Forum highlighted the potential of online platforms, e-democracy applications and similar digital tools to enable participation and make democracy more transparent and responsive. It also examined the risks posed by such tools, especially with regards to privacy issues and the digital divide. The Forum concluded, among others, that for democracy to become stronger in the digital age, it is necessary to introduce safeguards and standards for e-democracy applications, invest in digital literacy and close the digital divide.

In its 2019 edition, the WDF asked: *"Is democracy in danger in the information age?"*.[2] The way information is produced and consumed has changed remarkably over the last two decades. Traditional media outlets have been supplemented and at times even surpassed by platforms, blogs and social media. The Forum thus raised questions with regards to the reliability and independence of information and its accessibility as well as addressed issues such hate speech, safety of journalists, disinformation campaigns on social networks – all

1 https://www.coe.int/en/web/world-forum-democracy/2013-forum and the report: http://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=09000016806b1783

2 https://www.coe.int/en/web/world-forum-democracy/forum-2019

topics highly relevant to the functioning of democracy and governance structures in the digital age.

With regard to **artificial intelligence**, the Council of Europe has shown awareness of the threats and opportunities associated with it. It is claimed that AI technologies have the potential to revolutionise the relation between state, business and citizens. To date, it is fair to say that AI technologies can be and have been used in both liberal and authoritarian systems, thus either strengthening democracy and government accountability or amplifying repressive capabilities.

In its 2019 report on The State of Democracy, Human Rights and the Rule of Law in Europe, former Secretary General Thorbjørn Jagland called for a strategic, transversal approach on AI, developed and applied in line with European standards on human rights, democracy and the rule of law. Subsequently, in the conclusions of the Helsinki ministerial meeting, the Committee of Ministers pointed out, that: *"Effective supervisory mechanisms and democratic oversight structures regarding the design, development and deployment of AI must be in place. Functioning democratic processes require an independently informed public, and the encouragement of open and inclusive debates. Public awareness of the potential risks and benefits of AI must be enhanced and necessary new competencies and skills developed. Due public trust in the information environment and AI applications must be fostered; (...) The design, development and deployment of AI tools must be subject to risk assessment in line with applicable principles. All automated processes should be designed to make them scrutinisable to a human reviewer. Effective remedies must be in place within public and private remits in all cases where human rights violations are alleged. Algorithmic transparency is crucial for building trust and ensuring due rights protection."*[3]

Following the decision of the ministerial meeting in Helsinki in May 2019, the Committee of Ministers set up the Ad Hoc Committee on Artificial Intelligence (CAHAI).[4] CAHAI has a mandate to examine the feasibility and potential elements of a legal framework for the development, design and application of artificial intelligence, based on the Council of Europe's standards on human rights, democracy and the rule of law. Its work should be finalised by the end of 2021.

In April 2020, the Committee of Ministers adopted a Recommendation on the human rights implications of algorithmic systems, issuing a set of guidelines calling on governments to ensure that they do not breach human rights through their use, development or procurement of algorithmic systems.[5]

Given the complexity, speed and scale of algorithmic development, the guidelines stress that member States must be aware of the human rights impacts of these processes and put in place effective risk-management mechanisms. Furthermore, the development of some systems should be refused when their deployment leads to high risks of irreversible damage or when they are so opaque that human control and oversight become impractical.

Council of Europe documents on Artificial Intelligence

- Recommendation of the Committee of Ministers to member States on the human rights impacts of algorithmic systems - CM/Rec(2020)1
- Declaration of the Committee of Ministers on the manipulative capabilities of algorithmic processes

3 https://rm.coe.int/conclusions-from-the-conference/168093368c
4 Webpage of the Council of Europe Ad Hoc Committee on Artificial Intelligence
5 https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

- Unboxing AI: 10 steps to protect human rights - Recommendation of the Commissioner for Human Rights, May 2019
- Guidelines on Artificial Intelligence and Data Protection - *T-PD(2019)01*
- European Ethical Charter on the use of artificial intelligence (AI) in judicial systems and their environment
- Recommendation 2102(2017) of the Parliamentary Assembly of the Council of Europe on Technological convergence, artificial intelligence and human rights

5. Digital transformation and the 12 Principles of Good Democratic Governance

The 12 Principles of Good Democratic Governance are enshrined in the Strategy on Innovation and Good Governance at local level, endorsed by a decision of the Committee of Ministers of the Council of Europe in 2008.[6] Developed initially with the local level in mind, the 12 Principles in practice assist public authorities at all levels of government in improving governance and enhancing service delivery. TAs such the 12 Principles act as an inspiration and orientation for member States, representing the fundamental values of European democracy and requirements for good democratic governance.

12 Principles of Good Democratic Governance

1. Participation, Representation, Fair Conduct of Elections
2. Responsiveness
3. Efficiency and Effectiveness
4. Openness and Transparency
5. Rule of Law
6. Ethical Conduct
7. Competence and Capacity
8. Innovation and Openness to Change
9. Sustainability and Long-Term Orientation
10. Sound Financial Management
11. Human Rights, Cultural Diversity and Social Cohesion
12. Accountability

Whether in the area of democracy or in the area of government and public administration, *when adequate safeguards are in place*, technology can play a role in strengthening all these principles, with an emphasis on participation, inclusiveness, efficiency, effectiveness, responsiveness, transparency, openness and accountability. In a nutshell, technology can improve the quality of government and help meet people's needs and expectations, contributing to greater trust in public institutions.

For this to be possible, however, adequate safeguards must be in place. Technology provides manifold opportunities to strengthen democracy and governance but it can also adversely affect the enjoyment of individual rights and freedoms, for instance as regards privacy and data protection; it can lead to opacity of electoral campaigning and political decision-making, thus weakening the democratic process; it can create divides and new grounds of discrimination based on e-literacy or internet access.

6 15th session of the Conference of European Ministers responsible for local and regional government (Valencia, 15-16 October 2007) − Report by the Secretary General
https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016805d3dc8

PART II – DEMOCRACY

1. Forms and characteristics of democracy

Preamble of the European Convention on Human Rights

Reaffirming their profound belief in those fundamental freedoms which are the foundation of justice and peace in the world and are best maintained on the one hand by an ***effective political democracy*** *and on the other by a common understanding and observance of the Human Rights upon which they depend;*

There may be many philosophical and sociological definitions of democracy but an internationally agreed definition does not exist. Democracy is commonly understood as a system in which government is exercised by the people, either directly or through their elected representatives.

Characteristics of democratic systems include:[7]

- The separation of the three branches of power (executive, legislative, judiciary);
- An effective system of checks and balances between the branches of power, including parliamentary oversight of the executive;
- A balanced distribution of powers between different levels of government;
- Political pluralism (freedom of expression, freedom of association and freedom of assembly; existence of a range of political parties representing different interests and views);
- Free and fair elections and a plurality of forms of civil and political participation;
- The rule of the political majority in the respect of the rights of the political minority;
- The rule of law, with nobody being above the law.

Often different forms of democracy are referred to. They are:

Representative democracy: a system in which the electorate elect representatives to initiate and vote on laws, policies, and other matters of government on their behalf;

Direct democracy: a system in which the electorate initiates and/or vote on laws, policies and other matters of government;

Deliberative democracy: a system in which deliberation (by consensus or majority) is central to decision-making;

Participatory democracy refers to the direct participation by citizens and civil society at large, individually or in associations, in public decision-making.

In Council of Europe member States, these three forms coexist, with a different emphasis on each of them according to national specificities.

Every two years, International IDEA publishes a report on the state of democracy. In its Global State of Democracy 2019: Addressing the Ills, Reviving the Promise (8), International IDEA highlights that *"While the past four decades have seen a remarkable expansion of democracy throughout all regions of the world, recent years have been marked by declines in the fabric of both older and younger democracies. (…) Democratic erosion is occurring in different settings and contexts. New democracies are often weak*

[7] The list below reflects the measurement criteria used in the annual reports of the Secretary General of the Council of Europe on The State of Democracy, Human Rights and the Rule of Law in Europe.
8 https://www.idea.int/publications/catalogue/global-state-of-democracy-2019

and fragile. Older democracies are struggling to guarantee equitable and sustainable economic and social development. The share of high-quality democracies is decreasing and many of them are confronted with populist challengers."

Indeed, many argue that liberal democracy is in a crisis or has come under attack. However, there is no consensus about the causes of the crisis nor on the role digital technologies play with regards to the crisis.

A recent study on "The future of democracy in Europe: Technology and the Evolution of Representation" (9) by Chatham House argues that "(…) *the crisis of liberal democracy cannot be blamed on the development and prevalence of digital technology, as is sometimes asserted or more often implied. Rather, the crisis has deeper causes about which there is little consensus, with views dependent on normative assumptions about democracy that are ultimately political. Nevertheless, it is clear that digital technology is transforming society, and in particular the public sphere, in ways that are not yet fully understood."*

The study challenges the assumption that social media has amplified polarisation and even argues that one of the causes of the current crisis of liberal democracy, at least in Europe, might be the lack of polarisation in the past 20-30 years.

Democracy is not a static system. On the contrary, *"One way to think about the current crisis is that another moment may have arrived that requires democracy to evolve. In particular, citizens may now be demanding a kind of democracy that is more responsive than the current representative model. The solution is thus not to limit democracy, for example in response to the threat from perceived populism, but to deepen it further in what Claus Offe has called the 'democratization of democracy'."*

The current situation can also be interpreted in light of two different approaches to democratic governance: responsible v. responsive modes of government, or a constitutional v. popular approach. The open question is where to strike the balance between these two modes, since both elements are important. Trust in government depends as much on responding effectively to the needs of people as on governing responsibly and accountably.

2. Stakeholders of democracy

The Council of Europe has consistently referred to stakeholders of democracy as all individuals and institutions involved in the functioning of democracy, such as public authorities, institutions, NGOs, citizens and civil society at large.

Digital transformation affects the way in which these stakeholders act and interact. It is reshaping the way in which citizens interact with the authorities. Digital transformation has affected the functioning of different forms of democracy opening up new ways and possibilities: campaigning for elected assemblies increasingly takes place online; various citizen initiatives, including petitions, are conducted online; similarly, online consultations platforms are more and more widespread and used also by public authorities.

In recent years, there has been a sharp decline in the membership of traditional political parties coupled with the rise of new political movements and parties greatly reliant on digital technologies. It is evident that digital technology has helped to reinvigorate democracy, in particular the role of political parties. The new so-called digital parties in various member States have been using digital technologies to effectively mobilise citizens and, in many cases, gain electoral support. They have done so by shifting internal decision

9 Hans Kundnani, The Future of Democracy in Europe. Technology and the Evolution of Representation, March 2020.

making online and opening the process up to civil participation. This opening up to a wider audience has been very effective in generating large scale support. However, some may argue that the draw-back has been the "tyranny of people with time" – as the voices and positions of those who have the most time to spend might be the most visible and prominent.

Furthermore, member States have been experimenting with forms of democracy, notably direct democracy (e.g. referendums) and deliberative democracy (e.g. citizens' assemblies, public consultations). The question for the future remains: What societal and policy issues are best suited for which form of democracy, and what technology to use?

The civil society organisations landscape has changed too, with the rise of tech-savvy global players such as Avaaz (the world in action), change.org and successful national variations (Campact in Germany, 38degrees in the UK). These groups are often dismissed or critiqued as slacktivism/activism from the couch. However, using technology to mobilise people they have managed to have an impact on laws and policies.

Using digital platforms to share information, to launch public consultations, to express one's views, to mobilise campaigns, to collect funds and to pursue common objectives has become common practice.

Technology is creating unprecedented opportunities. At the same time, it is stretching the limits of existing laws and regulations on freedoms of expression, association and assembly which were conceived for traditional forms of political engagement. An example of this is facial recognition software that tracks movement of people in public spaces and therefore potentially impacts on their right of assembly.

Digital transformation is also bringing about a new role for private in the public sphere: a stark increase in the power and influence of the private sector over the digital eco-system is apparent. In addition, companies such as internet intermediaries, platforms and digital service providers are expanding their activities (and subsequently influence) into the public sector – as producers and providers of services, infrastructure and know-how. This development could potentially lead to risks for public safety and national security. On the other hand, it can also lead to a better, more responsive and cost-effective design and delivery of services, with a subsequent improvement of the quality of governance.

The Parliamentary Assembly of the Council of Europe (PACE) adopted Resolution 2341 (2020) on the "Need for democratic governance of artificial intelligence (10). In the report, the Rapporteur Ms Bergamini (Italy, EPP/CD) highlights among others that "*One of the more general concerns about AI technologies in terms of democracy is an unprecedented and un-checked concentration of data, information and power in the hands of a small group of major digital companies which develop and own the algorithms, as well as the centralisation of the internet itself. These big companies no longer serve as simple channels of communication between individuals and institutions but play an increasingly prominent role on their own, setting the agenda and shaping and transforming social and political models. If too much political power is concentrated in a few private hands which prioritise shareholder value over the common good, this can threaten the authority of democratic States. Thus, there is a clear need to reduce the influence of major private companies on democratic decision-making. Moreover, public-private collaborations in AI and its use in sensitive fields, such as public order; security and intelligence; border control, but also in research and development, blur the boundaries between the responsibilities, processes and institutions of democratic States, and the interests of private corporation.*"

10 https://pace.coe.int/en/files/28803/html

From a democratic perspective the increasingly influential role played by private companies poses challenges as the responsibilities and obligations of the public sector and the private sector are very different in nature.

3. Impact of digital transformation on democracy

3.1. Free and fair elections

Free and fair elections are the cornerstone of representative democracy. Therefore, independent public opinion formation is vital. Digital technologies form an integral and important part of the information eco-system that voters rely on.

Online media and electoral campaigns

Digital technologies have reshaped the ways in which people express their will through votes and representation and they have to a large extent changed political campaigning. The constant and simultaneous flux of information across multiple online platforms represents a huge challenge for the surveillance of behaviour and resources during political campaigns. Moreover, the anonymous creation of content hampers the identification and attribution of responsibilities for illegal online behaviours. The growing use of *bots* and *trolls* in social media, as well as the massive distribution of false information, seriously damage equality of arms in the electoral competition and allow for external actors to manipulate public discourse and the citizens' voting preferences. Furthermore, the algorithms that govern search engines and social media may foster a partial and sometimes illusory comprehension of politics and democracy. The Venice Commission and the Directorate of Information Society and Action against Crime of the Council of Europe have recently published a report (11) exploring these aspects from the point of view of democracy, human rights and the rule of law.

Misinformation and disinformation

Digital technologies, including artificial intelligence and machine-learning algorithms, have been used by various actors to influence democratic processes and outcomes. For instance, the recourse to *bots* and *trolls* during electoral campaigns with a view to manipulating voter behaviour has received great attention by media, governments and organisations working in the area of democracy, including the Council of Europe.

As noted by the Venice Commission, "The "democratisation" of content production and the centralisation of online distribution channels have had as unintended consequence the proliferation of false information, private and public disinformation tactics. The advent of every means of communication (a) expands the dissemination of and the access to information (freedom of communication); (b) implies the risk of abuses (malicious content); (c) opens the way to censorship and (d) to manipulation by the powerful public and private actor." (12)

The issues raised above concerning misinformation and disinformation are further exacerbated by technological developments such as deep fakes. These technological advancements make it harder for all stakeholders, including the service providers themselves as well as citizens and civil society at large, public authorities, and media specialists to identify the truth content and thus separate fact from fiction. This might have potentially detrimental impact on democratic values.

11 https://www.venice.coe.int/webforms/documents/?pdf=CDL-AD(2019)016-e
12 https://www.venice.coe.int/webforms/documents/?pdf=CDL-AD(2019)016-e

The Council of Europe has addressed issues related to these trends, among others the Study on the use of internet in electoral campaigns (13) in 2018; Recommendation CM/Rec(2018)2 of the Committee of Ministers to member States on the roles and responsibilities of internet intermediaries (14) and the Declaration by the Committee of Ministers on the manipulative capabilities of algorithmic processes (15).

The UK Election Commission published a report on the 2019 general elections[16] and concluded among others that:

- Misleading content and presentation techniques are undermining voters' trust in election campaigns

- It is too often unclear who is behind digital election campaign material. Significant public concerns about the transparency of digital election campaigns risk overshadowing their benefits

- Social media companies need to provide more detailed and accurate data about election campaigns and spending in ad libraries on their platforms so we and voters can see more information about who is campaigning.

Voting applications

Voting Advice Applications (VAAs) are online tools that assist and inform voters by comparing their policy preferences with the political stances of parties or candidates running for office. The users of these tools mark their positions on a range of policy statements. After comparing the individual's answers to the positions of each party or candidate, the application generates a rank-ordered list or a graph indicating which party or candidate is located closest to the user's policy preferences. VAA have been proliferating in the last decade and are used by millions of voters in Europe.

Examples of the most widely used VAA include StemWijzer in the Netherlands, Smartvote in Switzerland and Wahl-O-Mat in Germany. Originally embedded in citizenship education initiatives, they influence voter behaviour by motivating users to engage in further research about party policies, motivating participation in elections and affecting vote intentions.[17]

At the same time a word of caution might be appropriate as long as there is no full transparency on how these voting recommendation systems function (information basis, ranking of priorities, weighing of answers etc). Outsourcing of voting decisions to machines might have unintended consequences on democracy.

Microtargeting

Digital microtargeting in the context of political campaigning is a technique by which political parties analyse large datasets in order to better understand the behaviour, opinions and feelings of potential voters. This allows political parties to cluster voters into groups which in turn receive messages that speak to their concerns and resonate with their opinions. Instead of one central message for all, political parties can disseminate a multiplicity of targeted messages in various formats and channels to carefully chosen audiences.

Many argue that agency and independent formation of opinions is called into question through manipulative use of microtargeted advertisement – including political

13 https://edoc.coe.int/en/internet/7614-internet-and-electoral-campaigns-study-on-the-use-of-internet-in-electoral-campaigns.html
14 https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=0900001680790e14
15 https://search.coe.int/cm/pages/result_details.aspx?ObjectId=090000168092dd4b
16 https://www.electoralcommission.org.uk/who-we-are-and-what-we-do/elections-and-referendums/past-elections-and-referendums/uk-general-elections/report-overview-2019-uk-parliamentary-general-election
17 Diego Garzia and Stefan Marschall, Voting Advice Applications, Oxford Research Encyclopedias, March 2019

advertisement - as people are exposed to one view only. Others are concerned about the integrity of the electoral process. While others deplore the lack of transparency and accountability, as the big tech companies do not disclose sufficient information on the political ads they run and how they are financed.

The debate about political microtargeting revolves around the question of targeting as such: is the targeting done by malicious actors? Are people aware and understand where the information comes from? Can people opt-out or choose themselves to receive information? These questions raise issues with regards to transparency, accountability and digital literacy among others.

To a large extent the debate about microtargeting also centres around how political information is produced and distributed at scale in the digital age. Microtargeting for political campaigning is thus to be understood as one practice in the context of a wider digital eco-system.

In this context it becomes particularly relevant to examine the role of internet intermediaries and platforms, as they distribute, curate and moderate content and sometimes also produce content.

The Council of Europe has published several studies that deal with the question of freedom of expression, media pluralism and journalism on the internet. The Committee of experts on media environment and reform (MSI-REF) is currently preparing guidelines with regards to content curation and moderation. These practices affect what information people are shown and how readily information is available and accessible.

In the context of microtargeting by political parties, one of the key challenges is to define **what actually constitutes a political advertisement**. In addition, who should decide the definition? Are internet intermediaries and platforms entitled to provide a definition? Should political parties decide what information they categorise as a political advertisement? Should independent bodies be set up to decide? What happens when decisions are challenged? Who is in charge?

Currently, no agreed definition exists and internet intermediaries and platforms act according to their own rules with little to no oversight by independent bodies. There is no consistency and little transparency. While Twitter banned political ads from its platforms, Facebook allows them under certain conditions. Youtube started to look into its recommendation algorithm.

Political parties that rely on microtargeting argue that it is an efficient way to formulate policy proposals tailored to the relevant constituencies and to respond to the citizens' needs in a better way.

For the public as well as for relevant oversight bodies, it is difficult to track who receives what message. As such digital microtargeting brings campaigning to a whole new level of sophistication and can be used both positively and negatively. It might enhance or undermine democratic values and strengthen or amplify either democratic or populists' voices. Machine-learning algorithms are also being used by political parties to refine their message.

Microtargeting and similar technologies raise questions with regards to the protection of fundamental principles of good democratic governance such as transparency, accountability, inclusiveness and ethical conduct as well rights such as privacy and data protection.

The EU General Data Protection Regulation (GDPR) establishes strict guidelines based on individual consent for the collection and processing of personal data, placing limitations on the use of digital microtargeting for parties. Profiling for political purposes is not allowed.

In practice, however, people often do not know they have been microtargeted in the first place. Even if they recognise an ad as a targeted ad, they often do not know what kind of information was used to target them. Facebook, for example, provides some information about the targeting criteria specified by the advertiser. However, this is not sufficient and does not give people a ground to challenge those behind the ads.

In short, this kind of data gathering threatens privacy and the collection of personal information might lead to chilling effects and self-censorship, as people might modify their online behaviour so as not to be singled out.

While the GDPR plays a key role in the context of microtargeting, it is only a piece of the puzzle and it is insufficient for mitigating the risks caused by microtargeting.

Another danger of political microtargeting is that the public debates and democratic processes are captured by narrow interests, are fragmented or systematically exclude vulnerable or minority groups. In a recent study published in the Utrecht Law Review(18) the authors argue that "*A political party could also misleadingly present itself as a one-issue party to each individual. A party may highlight a different issue for each voter, so each voter sees a different one-issue party. In this way, microtargeting could lead to a biased perception regarding the priorities of that party. Moreover, online political microtargeting could lead to a lack of transparency about the party's promises. Voters may not even know a party's views on many topics."*

The authors identify three main threats from the perspective of citizens: *"(…) they could have their privacy invaded, be manipulated, or excluded. Even if microtargeting were not effective, the mere collection of data would still be a privacy threat*."

Lack of transparency as to the authors of the political ads and their source of financial backing may result in an uneven playing field, which further undermines trust in elections in particular and democratic processes in general. **The challenges for election administration authorities** in charge of monitoring the electoral process and political campaigning are manifold. They include fragmentation of enforcement and oversight, distribution of responsibilities amongst different agencies and regulators and the cross-border nature of online campaigning.

There is a big difference among member States when it comes to the **prevalence of microtargeting**. Some member States have witnessed consorted or intensive use of microtargeting by political parties, other member States have little or no experience with microtargeting, since political parties might not be ready and/or adequately equipped to invest in and deploy advanced digital tools. Therefore, the level of concern and the perception of urgency with regards to formulating a reaction to microtargeting differs among member States.

However, there is a growing consensus that platform self-regulation is insufficient. It is thus not surprising that there is a multitude of proposals on how to deal with microtargeting. These proposals focus among others on:

- More research to better understand the effects and impacts of microtargeting on the political sphere;
- Need for an increased transparency on how much is spent on political ads and by whom;
- Need to improve the quality of advertising archives which internet intermediaries and platforms currently make accessible to researchers;
- Calls to reduce political targeting to human scale and not to rely on or use AI technologies such as machine learning or algorithms in the process;

18 Online Political Microtargeting: Promises and Threats for Democracy (2018) Frederik J. Zuiderveen Borgesius, Judith Möller, Sanne Kruikemeier, Ronan Ó Fathaigh, Kristina Irion, Tom Dobber, Balazs Bodo, Claes de Vreese

- Calls for universal transparency of all types of advertisement (not only political advertisement);
- Suggestions to introduce (automated) measures for counter-speech;
- Demands for effective regulation;
- Calls for a complete ban on microtargeting.

In conclusion, it remains an open question whether microtargeting renders political debates opaque, polarized and susceptible to being captured by narrow interests (groups) and thus creating an uneven playing field or on the contrary whether microtargeting is giving a positive contribution to democratic discourse as citizens receive personalised information that is relevant to them and parties can more effectively connect with their voters and citizens at large.

This question cannot be fully answered, due to lack of empirical data or evidence. More research and above all access to data from political parties and the internet intermediaries and platforms is needed.

At the same time, there are clear indications that the right to privacy and the public sphere are impacted by microtargeting. The cross-border nature of some of the microtargeting poses further challenges to addressing the issue of accountability, transparency and inclusiveness.

When considering regulation of microtargeting, different rights need to be balanced. The question is where and how to draw the line, especially keeping in mind the scale and speed of information in the digital age. Civil society organisations in more fragile democracies warn of the danger that regulation of online spaces might be abused to curb political rights of the opposition.

Table: Promises and Threats of microtargeting

	Benefits	Risks
Citizens	Receive relevant political advertising Receive message that resonate with them	Privacy breaches Manipulation and potential for misleading information Being excluded Profiling Abuse of data
Political parties	Cost effective Reach and mobilisation of target groups Reach social groups that might be difficult to contact Efficient Effective	Expensive Internet intermediaries, platforms and data brokers increase their power (without proper oversight)
Public opinion	Diversification of opinions Potentially more engagement	Fragmented messages and marketplace of ideas Lack of transparency regarding overall program of a party Priorities unclear Capture by narrow issue groups
Election bodies		No oversight Cross border nature of online campaigning Lack of transparency regarding finances and criteria
Regulation	Transparency Ensuring level playing field	Ineffective Freedom of expression

3.2. Civil participation

Participatory democracy is a process in which individuals, NGOs and civil society at large are involved in the conduct of public affairs at local, regional, national and European levels.

Participation in political life is essential for the legitimacy and functioning of democracies. Several documents of the Council of Europe have highlighted the importance of civil participation in decision making for good governance. These include among others the 12 Principles for Good Governance, Recommendation CM/Rec(2007)14 on the legal status of non-governmental organisations in Europe[19], the recommendation CM/Rec(2018)4 on Participation of Citizens in Local Public Life and the recommendation on the Protection of Civic Space. The Committee of Ministers also adopted Guidelines for civil participation in political decision making[20], underlining the centrality of citizens' participation to democracy.

According to the Revised Code of Good Practice for Civil Participation in the decision-making process,[21] adopted by the INGO Conference in 2019, there are seven steps in the political decision-making process: Input/incentive ideas, agenda setting, drafting of policy, decision-making, implementation of policy, monitoring and reformulation of policy. Each step offers opportunities for civil society organisations and public authorities to interact.

Digital tools can be used at each of these stages. In fact, digitalisation has opened new channels to reinforce participatory democracy, empowering citizens and civil society at large to engage in public affairs through various means such as online platforms, public portals providing information, online public consultations, e-petitions, etc.

This process can be top-down (initiatives are set up by the authorities with a view to ensuring the openness, transparency and inclusiveness of the decision-making process), or bottom-up (initiatives are set up by citizens and civil society with a view to contributing to better policy making by public authorities).

The main challenges in the area of participatory democracy lie in the risks of exclusion and discrimination due to the digital gap and other barriers. **Increasing reliance on e-participation should go hand in hand with an effort to narrow the digital divide. In addition, authorities at all levels of government should continue to provide traditional participation channels, giving citizens the choice of the way in which they participate**.

Making open data available increases the ability of citizens and civil society at large to co-create services, engage in informed policy making and conduct participatory projects. Particularly at the local level this changes the interaction of people with the local authorities. Examples of participatory measures with a digital component at the local level include **participatory budgets and online consultations**.

The **impact of artificial intelligence on participatory tools** varies greatly and depends to a large extent on who is using the AI systems and with what purpose. The use of AI in participatory tools raises questions of transparency (are people aware that an AI system is being used; do people know who is behind the AI system; are people aware what data goes into the system and what algorithms are used?) and accountability (who is held to account in case of false results, data breaches or misuse of data?).

Special care needs to be taken to ensure that democratic principles are not undermined, and that participation is enabled for all (and thus issues are not co-opted by vocal and digital-savvy interest groups). In general, digital tools for participation, including AI systems, must avoid creating new barriers. At the same time, the tools are vulnerable to

19 https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016805d534d

20 CM(2017)83

21 https://rm.coe.int/code-of-good-practice-civil-participation-revised-301019-en/168098b0e2

misuse and manipulation. Therefore, measures must be taken to minimize these risks with full respect to the demands of data-protection and the right to privacy as well as transparency and accountability.

Artificial intelligence for political participation and accountability (Author: Paulo Savaget, Round Table on Artificial Intelligence and the Future of Democracy, Council of Europe, 2019)

	Negative prospects	***Positive prospects***
AI-based technologies for democracies	*Facilitate central control over ICT*	*Permit marginalised people to join the democratic process*
	Fake vocal political support on social media	*Engage voters and help them be better informed about key political issues*
	Spread false messages to create the illusion of public support and manipulate citizens	*Increase people's voices and make sure their claims are heard by elected representatives*
	Reinforce filter bubbles and institutionalises deep-rooted prejudice	*Auditing for transparency*

3.3. Democratic oversight/Checks and balances

By amplifying the capacity of ordinary people to access, share and report information, digital transformation can contribute to the democratic oversight of public institutions and strengthen their accountability.

Thus, watchdog organisations have been set up to hold the public sector to account. For example, in Germany FragDenStaat (22) is a non-profit internet platform through which enquiries to public authorities can be made based on the Freedom of Information Act and other laws. The platform facilitates the process and documents the answers. In this way, information is also made available to the public at large.

Similar initiatives exist in Austria and the UK. In Austria, FragDenStaat helps citizens exercise their information rights vis-à-vis the authorities. In the UK, the platform "what do they know" helps citizens get answers from the government and public sector. On the EU level, AskTheEU.org is an online platform for citizens to send access to documents requests directly to EU institutions.

The German non-profit FragDenStaat also runs campaigns to gain access to information in the public interest. For example, in June 2015 the Federal Administrative Court in Germany had ruled that the Scientific Service of the German Parliament must publish its expert opinions upon request. The campaign FragDenBundestag was launched in January 2016 after a list of all titles of expert opinions of the Scientific Service was received. User of the platform could search the list by title and then request the relevant expert opinion. Just three days after the campaign started, over 1.000 expert opinions were requested. After less than a month the German Parliament's Council of Elders decided that all expert opinions would be published. The expert opinions can now be found on the website of the German parliament.

22 FragDenStaat.de

"Operação Serenata de Amor"

Operation Serenata de Amor is an artificial intelligence project to analyse public spending in Brazil. The project started in 2016 in the wake of major scandals of misappropriation of public funds in Brazil. The platform was able to analyse more than 3 million notes, raising about 8,000 suspected cases in public spending. The community that supports the work of the team benefits from open source repositories, with licenses open for the collaboration. As a result of this work, 629 complaints were made to the Ombudsman's Office of the Chamber of Deputies, questioning expenses of 216 federal deputies. In addition, the Facebook project page has more than 25,000 followers, and users frequently cite the operation as a benchmark in transparency in the Brazilian government. One of the examples of results obtained by the operation is the case of a Deputy who had to return about 700 BRL to the House after his expenses were analysed by the platform.

There are also few civil society organisations that act like watchdogs with regards to AI. In 2020, AlgorithmWatch published its second report on "Automating Society – Taking Stock of Automated Decision-Making in the EU" (23). AlgorithmWatch is a non-profit research and advocacy organisation committed to evaluating and shedding light on algorithmic decision-making processes that have a social relevance, meaning they are used either to predict or prescribe human action or to make decisions automatically.

To better ensure that automated decision making (ADM) systems currently deployed and those about to be implemented throughout Europe are consistent with human rights and democracy, the authors recommend among others: to establish public registers for ADM systems used within the public sector; to develop and establish approaches to effectively audit algorithmic systems; and to promote an inclusive and diverse democratic debate around ADM systems. The question of democratic oversight over AI systems remains pertinent and, so far, no independent bodies or processes exist.

The authors further argue that "Without the ability to know precisely how, why, and to what end ADM systems are deployed, all other efforts for the reconciliation of fundamental rights and ADM systems are doomed to fail."

In its feasibility study CAHAI is also looking at models of enforcement for a potential regulation of AI, these include human rights impact assessments, certification bodies, public registries for AI used in public sector to name a few.

In 2018, the Centre for the Fourth Industrial Revolution of the World Economic Forum (WEF)[24] established the ***Agile Governance*** *Project* which aims at *re-imagining governance* in the context of new technologies, such as AI, blockchain, internet of things, drones, autonomous vehicles, precision medicine and robotics.[25]

The project argues that civil society's role of ensuring **checks and balances** is bound to grow.[26] Non-traditional actors could be involved in governance in an institutionalised fashion through several tools, such as policy labs, regulatory sandboxes, introducing emerging technologies to increase agility in governance, promoting governance innovation, crowd-sourced policy-making, promoting collaboration between regulators, public-private data sharing, and direct representation in governance. The rational for this

23 https://automatingsociety.algorithmwatch.org/
24 https://www.weforum.org/centre-for-the-fourth-industrial-revolution
25 https://www.weforum.org/events/world-economic-forum-annual-meeting-2018/sessions/agile-decision-making-in-the-fourth-industrial-revolution
26 http://www3.weforum.org/docs/WEF_Agile_Governance_Reimagining_Policy-making_4IR_report.pdf

is that civil society, business and politicians all could have a common interest to intervene before the use of certain technological applications becomes too widespread.

The WEF *draft Agile Governance Principles*[27] calls on governments to:

- privilege outcomes over rules-based compliance;

- employ flexible action plans that can adapt to change;

- offer open and transparent collaboration with a wide range of citizens and interest groups, privileging participation over control;

- encourage and incorporate the self-organisation (over centralisation) made possible by technology by decreasing reliance on central governance unless it is the most effective level of governance.

27 http://www3.weforum.org/docs/IP/2016/ICT/Agile_Governance_Summary.pdf The concept of agile governance echoes the concept of agile software development, and so do its principles https://www.agilealliance.org/agile101/

PART III – GOOD GOVERNANCE

1. The link between democracy and governance

Secretary General of the Council of Europe, Report on the State of Democracy, Human Rights and the Rule of Law, 2017

A democratically secure society requires both effective democracy and good governance at all levels. More specifically, "effective democracy and good governance at all levels are essential for preventing conflicts, promoting stability, facilitating economic and social progress, and hence for creating sustainable communities where people want to live and work, now and in the future", as underlined by the 2005 declaration by the heads of state and government of the member states of the Council of Europe at their 3rd Summit in Warsaw.

The Council of Europe has adopted a number of legal instruments to support democracy and good governance, including the 12 Principles of Good Democratic Governance and the 20 Guiding Principles for the Fight against Corruption. Their effective implementation is essential to ensure the proper functioning of democracy, to build trust between the citizens and the states, and to meet citizens' legitimate needs and expectations through democratic governance and efficient and transparent service delivery.

2. Digitalisation of the public administration in Council of Europe member States

The use of digital technologies in the public sector has become increasingly widespread. All member States are currently digitalising their public administrations and service delivery. The extent of the digitalisation differs among member States. It is an ongoing process that started in the 1950s. Over the last two decades, however, it has been further fuelled by technological developments, in particular the growth of the global internet infrastructures and eco-systems.

Public administrations have been building their IT architectures over the last 70 years. Starting from the 1950s, the **e-government** era, public administrations have used technology to digitize their own internal data. This led to waves of bulk processing of data sets and resulted in so-called legacy IT systems, that remain vital for the successful operation of public administrations and oftentimes contain large-scale personnel data or help to process retirement payments.

The **e-governance** period of digitization began in the 1990s and focused on the use of internet technologies to put information about public administration online. Agencies started to add open government information on their website to appear more transparent to their stakeholders. In addition, citizen participation became more prevalent and first steps toward including citizens were made, mostly in form of surveys.

From 2005-2015, the concept of **digital government** emerged. Social networking technologies supported new forms of external communication with stakeholders. New forms of participation and open government appeared, such as open innovation platforms to collect insights from citizens, but also open data platforms to share government data with (mostly professional) re-users of government data. During this New Public Management era, the incentives increased to outsource technology development to IT service providers or consultants. This resulted in a decline of digital competences among public servants.

The following table provides an overview of waves of digital government:

Time	Topic	Description
1950s-1990s	**E-Government**	• Digitization of data • Bulk processing
1990s-2000s	**E-Governance**	• Use of Internet technologies to put information online • Citizen participation
2005-2015	**Digital government**	• Web 2.0 – new forms of external communication • Open government • Outsourcing
2015-today	**Digital governance & Digital transformation**	• Human- and needs-based structures • Digitalization of administrative processes • Reintegrate outsourced functions (digital service teams)

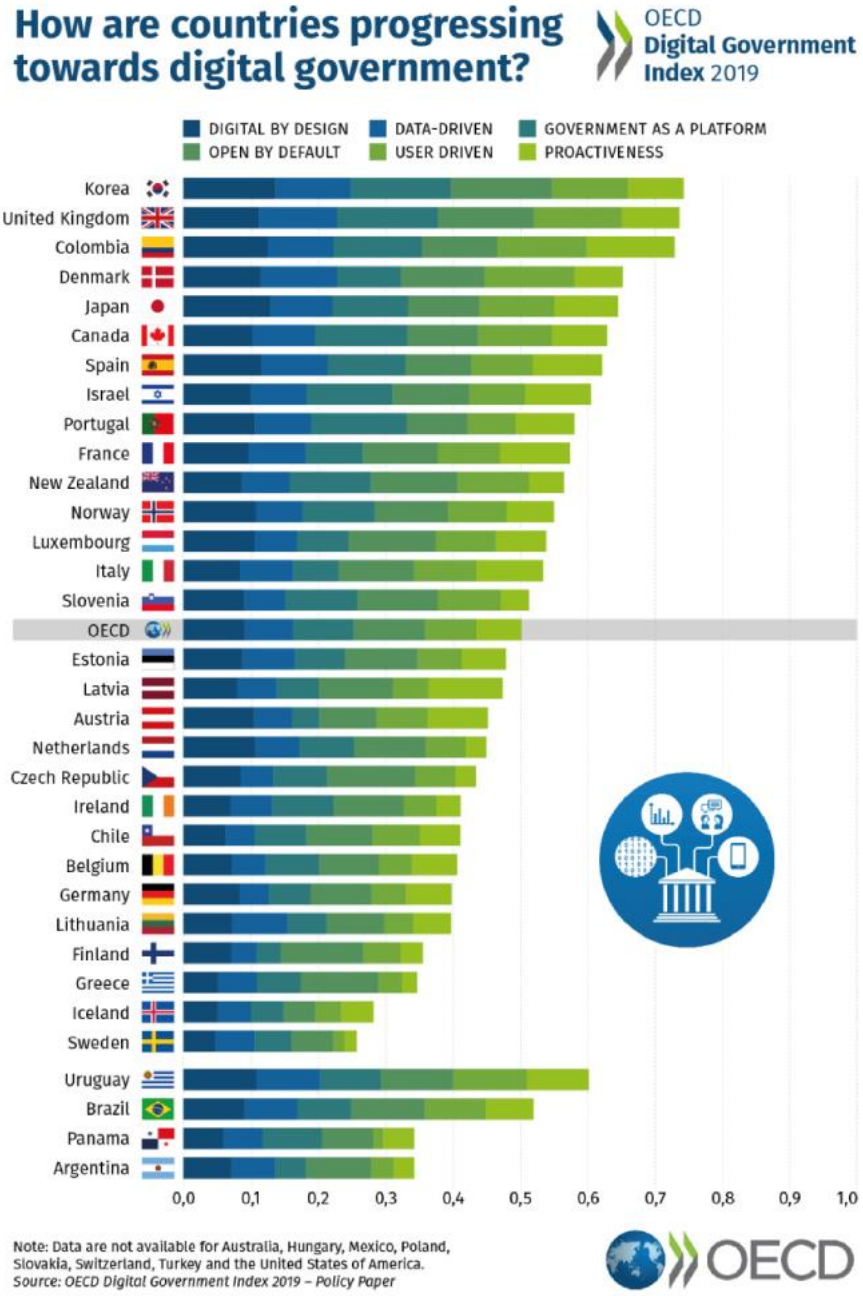
Figure 1: Overview of digital government phases

The **current digital transformation period** focuses on user-centricity and co-production of digital public services. Digital service teams with new roles, such as service designers and user-centric designers are emerging across European public administrations. These new roles bring new competencies into the front-end development of digital public services. The focus is on re-designing existing administrative processes with a digital-first attitude: all services are predominantly designed to serve the public online. Offline or analogue service delivery has become second priority.

Data collected on an annual basis by the United Nations since 2003 shows a constant growth of the E-Government Readiness Index (EGDI) of Council of Europe member States. In 2020, Denmark, Estonia, Finland, Sweden, the United Kingdom, the Netherlands, Iceland, Norway, Austria, Switzerland, Spain, France and Lithuania feature amongst the top twenty countries worldwide as regards this index.[28]

The newly established OECD Digital Government Index 2019 (29) covers the following six dimensions: Digital by design, Data-driven, Government as a platform, Open by default, User-driven and Proactiveness. It assesses the maturity of digital government, which is a process with no one fits all solutions. The following diagram shows positions of member States according to this benchmark:

[28] United Nations, E-Government Survey 2020
29 http://www.oecd.org/gov/digital-government-index-4de9f5bb-en.htm


How are countries progressing towards digital government?
OECD Digital Government Index 2019
DIGITAL BY DESIGN
DATA-DRIVEN
GOVERNMENT AS A PLATFORM
OPEN BY DEFAULT
USER DRIVEN
PROACTIVENESS
Korea
United Kingdom
Colombia
Denmark
Japan
Canada
Spain
Israel
Portugal
France
New Zealand
Norway
Luxembourg
Italy
Slovenia
OECD
Estonia
Latvia
Austria
Netherlands
Czech Republic
Ireland
Chile
Belgium
Germany
Lithuania
Finland
Greece
Iceland
Sweden
Uruguay
Brazil
Panama
Argentina
0,0
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0,2
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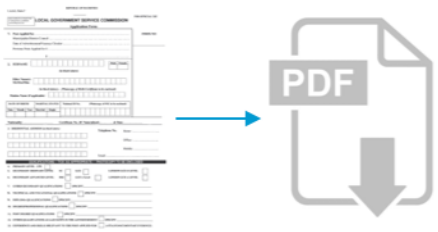
0,6
0,7
0,8
0,9
1,0
Note: Data are not available for Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States of America.
Source: OECD Digital Government Index 2019 – Policy Paper
OECD

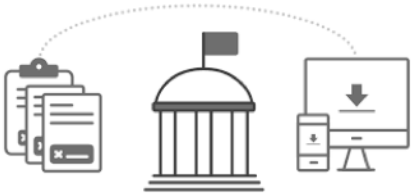
2.1. Digital strategies

Governments are inherently paper based. While there are many attempts to move toward a digital government, the core philosophy and therefore mode of operation is still derived from paper forms. Public administrations have developed roughly three strategies towards technology-driven change: digitization, digitalization, and digital transformation.

a. **Digitization:**
Transition from analogue to digital services with a 1:1 change in the delivery more and the addition of a technological channel of delivery (from a paper form to a non-editable pdf-form available online)



b. **Digitalization**: Focus on potential changes in the processes beyond mere digitizing of existing processes and forms (type into editable forms and submit online for automatic processing by a public administration)



c. **Digital Transformation**:
Emphasize the cultural, organizational, and relational changes and different forms of public value creation as a result (rethinking processes and services)

Figure 2: From digitization, to digitalization and digital transformation

2.2. Digital academies

Digital transformation can be defined as "*a holistic effort to revise core processes and services of government beyond the traditional digitization efforts*" (30). Digital transformation is a continuous process. To navigate it effectively, it is important to understand digital trends, create an enabling culture to be able to work in the open and to avoid conceptualising digital transformation solely as a technology problem.

To use digital technologies effectively, scale up initiatives and develop a digital mindset, public servants need to be equipped with a minimum level of knowledge to be able to

30 Mergel et al. 2019, in: Government Information Quarterly

identify the opportunities of technologies, but also understand which barriers might prevent proper implementation or lead to negative impact on constituents.

To this end, some member States have established **government digital academies.** These include, for example, the Government Digital Service Academy in the United Kingdom, or the recently established Digital Academy for the Central Government in the Danish Agency for Digitization in the Ministry of Finance. With the help of both internal and external experts, special digital topics are brought to public servants in formal training programs. In these digital government academies, programs for entire teams can be taught in the form of accelerator models, or individual digital pilots train stewards who then serve as multipliers for the rest of the organization.

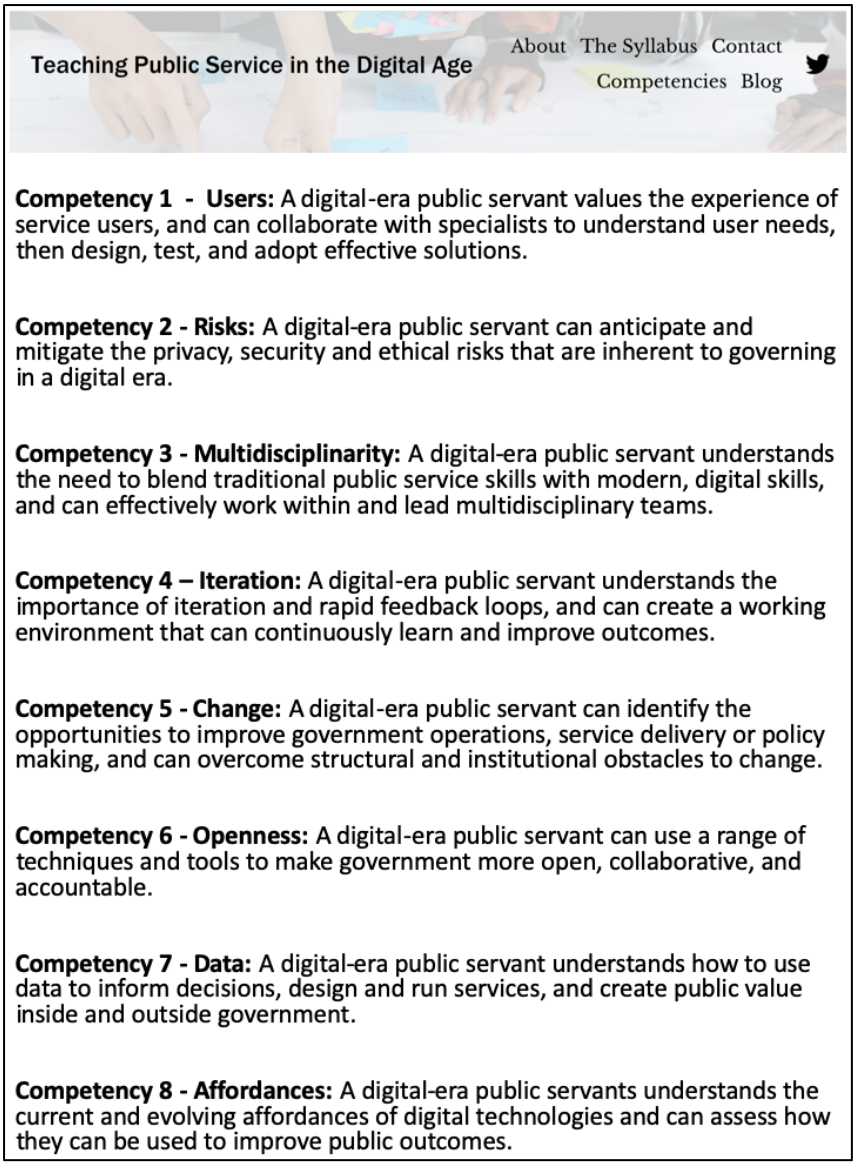
In addition, public managers can also support informal learning among public servants. Actions in this area can include providing permission for "open laptops" so that administrative staff can install and test new technologies. Other forms of informal learning are communities of practice on the Intranet.

Some member States have focused on recruiting IT personnel from other administrative or business sectors into the public sector. One example is the Work4Germany fellowship program at Germany's Tech4Germany (31) digital service in the Chancellery. The fellows bring new expertise and skills from outside of government and work in tandem on agency-level project to build digital solutions and at the same time transfer some of the practices and skills to their counterparts.

2.3. Types of digital competencies

The following eight competences for digital transformation are suggested by the "Teaching public service in the digital age" (32) initiative. (user-centric; mitigating risks inherent in digital age; multi-disciplinary teams; iteration; change management; openness; data-driven and affordance.)

31 https://tech.4germany.org/
32 https://www.teachingpublicservice.digital/



In addition, on the individual-level competencies include (a) technical competence, for which the individual's ability to access information in various media is essential. (b) Information literacy requires that public servants have the ability to know when there is a need for information, to identify this information, and to use it effectively to solve a given problem. Beyond the first two competences, it is necessary to develop (c) digital fluency, i.e. to develop an open-minded attitude towards the use of alternative technologies, to be able to switch seamlessly between different applications if necessary. However, all this does not happen in a vacuum, but also requires the (d) organizational readiness or digital maturity of the overall digital capacities of the public administration itself.

Furthermore, different stakeholders need different skills and competencies. **Managers** in public administrations must form a digital mindset to be able to rethink administrative processes from a digital standpoint. A distinction must be made between management responsibility for large generalist units, which can also be run with less specific IT expertise, and the management of specialist teams, for which specialist IT knowledge is required. Managers must be able to define implementation standards and, above all, understand digital ethics. Readiness for so-called "shared leadership" is necessary, i.e. leadership responsibility is broadly distributed so that people within a team and an organization lead each other - especially if they cannot attend physical meetings in person.

However, the most important competency for managers is that they need to understand technological trends in order to reduce their dependence on external consultants or suppliers.

Public servants and administrative staff must learn skills in the form of self-organization skills, especially when they move to a digital workplace. In the transition from old to new forms of work, it is important to develop communication skills that are necessary for distributed teams, but also new project management and implementation practices that were not available in government before – such as agile, scrum, iteration. Here it is important that discretionary powers are understood in relation to complex issues while technology constantly evolves. Public servants aiming to implement digital transformation also need to encourage buy-in from key stakeholders, and search for opportunities to show the value of their digital transformation plans.

IT service providers and consultants need an understanding of the logic of the public sector. The customers are both citizens and the administration, and it is necessary to understand that it is not about their own - market-based - logic. "One-size-fits-all" business models should be abolished.

From the point of view of **citizens**, digital administrative services should be simplified to the extent that citizens do not need any advanced digital skills to use them. One excellent example for the simplicity of design and proactive service provision to citizens, is the Gov.UK Notify service. It's a small application, that civil servants can use to automatically or manually push information to citizens.

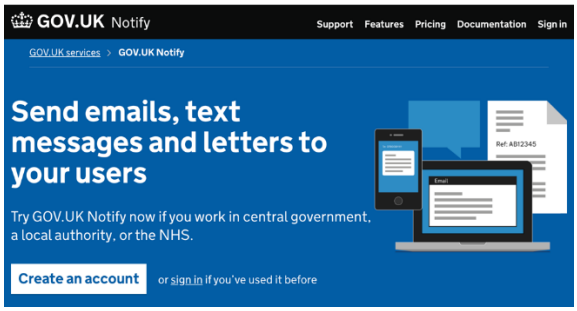


Figure 3: Gov.UK Notify

2.4. Challenges and opportunities for public administration

One of the main challenges that remain for the public sector generally is the notion that service delivery seems too slow in comparison to other types of digital products that citizens and other stakeholders are used to from the private sector. In addition, the public sector is criticised for blown up bureaucracies and large budgets that don't justify the level of service delivery.

The challenge is to respond to the assumed slowness in responsiveness and show how complex public service is. One way to respond to this challenge is by working in the open, e.g. write blog posts explaining the steps in developing digital services; or publish data or add software code to public repositories for other public servants to reuse and avoid reinventing the wheel. One such example is the sharing of software code on GitHub, which was developed in one city or municipality and can then be reused in other. Working in the open also poses risks, among others that sensitive data is accidentally revealed.

Connected to slow responsiveness of the public sector is the issue that public service delivery is usually seen as a "black box". By that citizens usually mean, that while they have proof that they applied for a service (usually a paper receipt), they don't know where their application stands in the process, and when it will be processed. A proactive way to address this might be to develop tools to track and trace the status of a service. E-business providers have solved this problem by proactively sending out messages or automatically notifying citizens about the status of their applications (like Gov.UK Notify).

Leaving citizens uninformed or unsure about a service that they are eligible for, but don't automatically receive, can create high levels of citizen dissatisfaction with government and subsequently create a threat to democracy. Not responding to this threat and leaving digital transformation up to the private sector can have direct impact on elections and support populist rhetoric.

One way to respond to this threat is to apply user-centric design approaches. These are practices that help public servants in the digital age to understand what their users need and design digital services and products in a way that they respond to external needs and not just support the internal logic of public administrations. Knowing what users need and meeting those needs will lead to higher rates of satisfaction with digital services.

2.5. Covid-19 as an accelerator

The lockdowns imposed due to the Covid-19 pandemic have contributed to accelerating digital transformation in the public sector, as evidenced by ad hoc, pragmatic digitalization practices in many public sectors of member States. Things that were never "allowed" before, were simply implemented (be it the digital home office, digital signature, submission of applications by email, video-conferences, etc.). In fact, some practices just needed to be scaled up faster than planned.

Some of the most remarkable digital innovations include the Corona tracing apps. Using bluetooth signals on citizen's cell phones, contacts with infected people can be traced and data can be used to alert citizens. At the same time, there was much debate about these tracing apps and member States have adopted different technological approaches, e.g. a centralised approach in France and a decentralised approach in Germany. Overall, the uptake and trust in tracing apps has produced mixed results.

In addition, invasive solutions are possible through these apps, such as population surveillance, case identification, contact tracing and evaluation of interventions, as can be seen by the TraceTogether app in Singapore. This extend of data analysis and intervention however has legal, ethical and privacy barriers, as well as organizational and workforce barriers under GDPR rules.

During the first lockdowns starting in March 2020, there was an immense solidarity of civil society actors contributing ideas and their programming skills to create solutions during the "We vs virus hackathons" (33). The participants created apps or designed digital solutions for new problems that societies in Europe had not encountered before the pandemic.

The Italian government has set up a digital solidarity site (34) to help citizens during the lockdown. Through this site, government agencies, but also private companies and non-profits offered their digital services, including promotions and free services to help citizens get through the Corona lockdown.

33 One example from Germany: https://wirvsvirus.org/

34 https://solidarietadigitale.agid.gov.it/#/

Countries with well-established public services, but little online public services before the pandemic, have quickly proposed digital policies and converted their existing services into digital offerings. This happened in some occasions literally overnight. Looking at the Germany for example, where new tools were posted online on Friday and on Monday citizens had their Corona relief money paid out.

However, now that governments are opening their citizen offices again, some of these practices are slowly rolled back, while others might persist over time – and are currently re-employed as part of the second wave lockdowns. It is therefore now important to assess which digital processes are sustainable online, which must be re-evaluated and adjusted.

The calls for more diversity and inclusivity are important enabling factors that also help public administrations to recognise that services must work for everyone and understand that often producers and vendors of digital products will not prioritise this.

To ensure accessibility on all dimensions and for all stakeholders involved, we can also see that open source and open standards have now become the norm for governments. It has become apparent, that interoperability across levels of governments and across countries have become a critical problem and that there is danger in failing to use open standards to facilitate it.

2.6. Digital maturity and readiness to scale up

Digital maturity describes an increased degree of proficiency, preparedness and organizational readiness in public administrations to be able to implement digital transformation projects. This requires above all an understanding of digital issues and trends: How are disruptive technologies such as artificial intelligence, blockchain or cloud services currently being discussed? Are any of these technologies helpful in solving policy and implementation problems that public servants have to work on – or is it a management fad? Which new project management formats such as agile, DevOps or cross-functional teams are necessary for the implementation of digital transformation?

In addition to technology questions, digital maturity also focuses on change management approaches. Digital transformation is influenced among others by the type of political system, the innovativeness of the public sector, the standing of the private sector delivering IT solutions to the public sector, the legacy systems in the public administration.

In Estonia 99% of public services is digitally available to its citizens and businesses. This is not the case for most member States. Estonia has a so-called open-system bureaucracy while Germany for example has a closed-system bureaucracy (for a detailed discussion of this comparison, see, Kattel & Mergel 2019). In the case of Estonia, no legacy IT systems needed to be considered. Therefore, decision making about the implementation of all-encompassing IT systems and processes was much easier than in established bureaucracies with deep legacy systems.

At the same time, every year there is a wave of new concepts and technologies in the digital space. These include concepts such as smart cities, AI, blockchain, government as a platform or mesh networks. It is not always easy to assess which of these trends and new concepts will have a long-lasting impact. Therefore, government leaders and IT implementers have to continuously evaluate the risk of adopting new technologies or stay with their legacy IT systems. These risks are not only privacy or security risks, but also political risks: Public leaders are increasingly held accountable for the technology choices made during their tenure.

For public administrations or digital leaders, it is therefore important to understand the impact of digital transformation and how to mitigate potential risks these technologies or approaches pose.

Some Council of Europe member States are moving towards implementing digital government structures that take modernisation and digitalisation of the public administration one step further. In 2017, all EU Member States and EFTA countries signed the Ministerial Declaration on eGovernment, also known as the Tallinn Declaration (35).

The Tallinn Declaration recognises that *"service-oriented, reliable and innovative government at all levels are essential to develop a dynamic, productive and European society. Since 2009, luckily several key milestones have been achieved, such as eProcurement, the deployment of key cross border services funded by the Connecting Europe Facility programme and the electronic identification (eID)."*

The next level of modernisation and digitalisation of public administration centres around five key principles:

1. Digital by default, inclusiveness and accessibility
2. Once only
3. Trustworthiness and security
4. Openness and transparency
5. Interoperability by default

In addition, the OECD Going Digital Policy Note, "Strengthening digital government" (36) from 2019 outlines a Digital Government Framework. It highlights the following six dimensions for digital government:

1. From the digitisation of existing processes to digital by design
2. From an information-centred government to a data-driven public sector
3. From closed processes and data to open by default
4. From a government-led to a user-driven administration, that is, one that is focused on user needs and citizens' expectations
5. From government as a service provider to government as a platform for public value co-creation
6. From reactive to proactive policy making and service delivery

Member State	Strategy or Strategic Document	Date of Publication
Austria	The ABC guide of eGovernment in Austria	March 2016
Croatia	The eCroatia 2020 Strategy	2017
Czech Republic	Digital Czechia Strategic Framework of the Development of Public Administration in the Czech Republic	2019 2018
Denmark	Digital Strategy 2016-2020	2016
Estonia	Digital Agenda 2020 for Estonia	2018
Finland	A roadmap to advance digital services	2017
France	Stratégie pour la transformation de l'action publique (Public Action 2022)	2018
Germany	National E-Government Strategy	Updated in 2015
Italy	Three Year Plan for Information Technology in public sector 2019 - 2021	2019
Lithuania	Information Society Development Programme 2014 – 2020: Digital Agenda for Lithuania	2014, updated 2017

[35] http://ec.europa.eu/newsroom/document.cfm?doc_id=47559
[36] https://www.oecd.org/going-digital/strengthening-digital-government.pdf

Malta	National Digital Strategy 2014-2020	2014
Netherlands	Digital Government Agenda	July 2018
Portugal	ICT Strategy 2020 – Public Administration Digital Transformation Strategy	2018
Spain	Digital Agenda for Spain Digital Transformation Plan of the State Administration	2013 September 2015
Sweden	For sustainable digital transformation in Sweden – a Digital Strategy	2017
United Kingdom	Government Digital Strategy	December 2013
Switzerland	Digital Switzerland Strategy	September 2018

2.7. Wrapping up

To some up, in recent years, there has been a push to further digitalise the public administration due to increased ability of data, lower costs, increased computing power and general digital transformation of everyday life as well as expectation by citizens for smooth, easily accessible services (as they have become accustomed to from the private sector).

At the same time, it is evident that public sector cannot simply replicate private sectors approaches, especially because the very different type of "business" model of government itself, its unique status as a quasi-monopolist, and individual countries' political contexts and regulatory environments.

The main motivation for digitalisation in the public sector is to increase efficiency and thus reduce costs. In addition, it is believed that digitalisation will free public official from routine activities that can best be automated, thus potentially increasing the quality of service delivery. It should be noted that special analytical skills for handling complex administrative problems based on empirical knowledge will not be replaceable by machines in the future either.

Above all, digitalisation of public administration requires investment among others in building, maintaining and updating the appropriate infrastructure (hardware and software); training and up-skilling of public officials; keeping up to date with technological developments and potentially re-designing processes, tasks and responsibilities. Not all member States are equally equipped and have the same resources or capacities to do so.

Barriers to reap the full benefits of digital advancements are manifold, ranging from technical and practical challenges (e.g. out-dated infrastructure, low data quality, interoperability), resources and capacity constraints (e.g. low digital literacy and lack of advanced digital skills, insufficient funding) to institutional, legal and cultural challenges (e.g. weak leadership, lack of clarity of regulatory or legal frameworks, resistance to change).

3. Artificial intelligence in the public administration

The AI readiness index

In 2017, Oxford Insights created the world's first Government AI Readiness Index, to answer the question: *how well placed are national governments to take advantage of the benefits of AI in their operations and delivery of public services?* The results sought to capture the current capacity of governments to exploit the innovative potential of AI.

As of the latest findings, relating to 2019, amongst the 20 best placed countries worldwide feature the following Council of Europe member States: United Kingdom, Germany, Finland, Sweden, France, Denmark, Norway, Netherlands, Italy, Austria and Switzerland.

An international, commonly agreed definition of artificial intelligence (AI) does not exist. For the purposes of the present study, AI refers to systems that, on the basis of a large set of data, can perform various tasks with some degree of autonomy. This includes the use of algorithms to identify similarities and patterns, classify them and utilise the data for predictive purposes. AI also includes different types of automated learning.

Countries around the world and international organisations such as the European Union have understood the tremendous economic potential of AI, which is considered as a strategic technology.

3.1. National strategies

Council of Europe member States are launching national AI strategies or similar initiatives to lay out their approach to the development and use of artificial intelligence, with a view to fully harness its benefits. These documents are meant to provide an overarching frame and guide the relevant AI stakeholders. They indicate clear willingness to use AI in the public sector with a view to delivering better public services and improving efficiency, effectiveness, responsiveness and coordination in the public administration. The role of the public sector is either as a leader in pushing for the development and uptake of AI or a regulator that provides the framework in which AI can thrive.

Member State	National AI Strategy or Strategic Document	Date of Publication
Austria	Artificial Intelligence Mission Austria 2030 (AIM AT 2030)	June 2019
Belgium	AI 4 Belgium	March 2019
Czech Republic	National Artificial Intelligence Strategy	May 2019
Denmark	National Strategy for Artificial Intelligence	March 2019
Estonia	Estonia's National Artificial Intelligence Strategy 2019-2021	May 2019
Finland	Finland's Age of Artificial Intelligence - Turning Finland into a Leader in the Application of AI: Objectives and Recommendations for Measures Work in the age of artificial intelligence - four perspectives on economy, employment, skills and ethics Leading the way into the era of artificial intelligence AuroraAI development and implementation plan 2019-2023	December 2017 September 2018 June 2019 March 2019
France	AI for Humanity The Villani report	March 2018
Germany	Artificial Intelligence Strategy: AI Made in Germany Key Points for a Strategy on Artificial Intelligence	November 2018 July 2018
Italy	Artificial Intelligence at the Service Citizens	March 2018
Lithuania	Lithuanian Artificial Intelligence Strategy: A vision of the future	April 2019
Luxembourg	Artificial Intelligence: a Strategic vision for Luxembourg	May 2019

Malta	Malta the Ultimate AI Launchpad: A Strategy and Vision for Artificial Intelligence in Malta 2030	October 2019
Netherlands	Strategic Action Plan for Artificial Intelligence	October 2019
Portugal	AI Portugal 2030	February 2019
Russian Federation	National Strategy for the Development of Artificial Intelligence by 2030	October 2019
Serbia	Strategy for the Development of Artificial Intelligence in the Republic of Serbia for the period 2020-2025	December 2019
Spain	RDI Strategy in Artificial Intelligence	March 2019
Sweden	National Approach for Artificial Intelligence	May 2018
United Kingdom	AI Sector Deal A Guide to Using Artificial Intelligence in the Public Sector Government Technology Innovation Strategy	April 2018 June 2019 June 2019

For Council of Europe member States, economic considerations are the main driving factor and the focus of the national AI strategies. The aim is to boost the economy and create jobs.

A reoccurring theme for all national AI strategies is investment in research and development in order to be able to benefit from the technological advances. Some member States established innovation hubs and labs to foster public-private partnerships and encourage collaboration across sectors.

Most national strategies address the use AI in the public sector, notably to deliver better public services for the benefit of citizens and enhance efficiency through automating routine government processes, and coordination in the public administration; in fact, some member States see the public sector as being a leader in pushing for the development and use of AI. Some member States also see potential for AI to help guide governmental decision-making (e.g. in the areas of public safety, public health or policy evaluation).

Member States recognise the fact that they need to invest in capacity building of civil servants and public sector officials. Some national strategies explicitly address "up-skilling" as an issue. Furthermore, investment in the education sector to ensure that qualified workforce will be available in the future.

Access to more and better data is often mentioned as a key element in order to improve the quality of public services. The national strategies contain different approaches to data governance. Some national strategies explicitly mention open data and sharing data transversally as well as with private sector.

Council of Europe member States are devoting an increasing share of human and financial resources to develop, implement and regulate the use of AI. This also applies to the public sector.

Most member States stress the need to embed AI design, development and deployment firmly within an ethical framework. Values and principles frequently mentioned in this context are human centred, trustworthy and responsible AI, transparency and human oversight.

While all member States mention an ethical framework, some also specifically mention the need to regulate AI and see the public sector in the regulatory role. As mentioned above, at the Council of Europe the Ad hoc Committee on Artificial Intelligence (CAHAI) is currently conducting a feasibility study regarding whether and how AI can be regulated.[37]

Finally, international cooperation is seen as desirable. In their national strategies, many member States have expressed their wish to work together on AI technologies.

3.2. Mapping use of AI in the public sector

Recently, AI Watch (the European Commission knowledge service to monitor the development, uptake and impact of Artificial Intelligence for Europe) has published the first mapping of the use of artificial intelligence in public services in EU Member States (38). The report provides an inventory of 230 cases representing a unique reservoir of knowledge, from which to extract indications, emerging trends, and illustrative examples of current AI usage. The analysis of the initiatives included in the mapping shows a wide range of AI solutions applied to diverse government functions and policy areas.

Factsheet: Examples of the current use of AI in the public sector. *Source: AI Watch, Artificial Intelligence in Public Services, 2020*

AI typology	Description	Example	No. of cases reviewed
Audio Processing	These AI applications are capable of detecting and recognizing sound, music and other audio inputs, including speech, thus enabling the recognition of voices and transcription of spoken words.	Corti in Denmark is used to process the audio of emergency calls in order to detect whether the caller could have a cardiac arrest	8
Chatbots, Intelligent Digital Assistants, Virtual Agents and Recommandation Systems	This AI typology includes virtualised assistants or online 'bots' currently used in not only to provide generic advice but also behaviour related recommendations to users.	In Latvia, the Chatbot UNA is used to help answer frequently asked questions regarding the process of registering a company	52
Cognitive Robotics, Process Automation and Connected and Automated Vehicles	The common trait of these AI technologies is process automation, which can be achieved through robotized hardware or software	The use of self-driving snowploughs in an airport in Norway in order to improve the clearing of snow on runways.	16
Computer Vision and Identity Recognition	AI applications from this list category use some form of image, video or facial recognition to gain information on the external environment and/or the identity of specific persons or objects.	In Estonia, the SATIKAS system is capable of detecting mowed (or the lack of mowed) grasslands on satellite imagery	29
Expert and Rule-based Systems,	The reason why these apparently distant AI developments are joined into a single application is	Nursery child recruitment system used in Warsaw. The algorithm considers data	29

37 https://www.coe.int/en/web/artificial-intelligence/cahai
38 AI Watch, Artificial Intelligence in Public Services, 2020

Algorithmic Decision Making	their prevalent orientation to facilitate or fully automate decision making processes of potential relevance not only to the private but also to the public sector.	provided by parents during the registration, calculates the score and automatically assigns children into individual nurseries.	
AI-empowered Knowledge Management	The common element here is the underlying capacity of embedded AI to create a searchable collection of case descriptions, texts and other insights to be shared with experts for further analysis.	In the Slovak Republic, an AI system is used in the government to assist in the browsing and finding of relevant semantic data	12
Machine Learning, Deep Learning	While almost all the other categories of AI use some form of Machine Learning, this residual category refers to AI solutions which are not suitable for the other classifications.	In the Czech Republic, AI is used in social services to facilitate citizens to stay in their natural environment for as long as possible	17
Natural Language Processing, Text Mining and Speech Analytics	These AI applications are capable of recognising and analysing speech, written text and communicate back.	In Dublin, an AI system analyses citizen opinions in the Dublin Region for an overview of their most pressing concerns by analysing local twitter tweets with various algorithms.	19
Predictive Analytics, Simulation and Data Visualisation	These AI solutions learn from large datasets to identify patterns in the data that are consequently used to visualise, simulate or predict new configurations.	Since 2012, the Zurich City Police have been using software that predicts burglaries. Based on these predictions, police could be forwarded to check these areas and limit burglaries from happening.	37
Security Analytics and Threat Intelligence	These refer to AI systems which are tasked with analysing and monitoring security information and to prevent or detect malicious activities.	In the Norwegian National Security Authority a new system is used based on machine learning is enabling the automatic analysis of any malware detected to improve cybersecurity	11

The report points out that it is too early to draw conclusions, as the technology is fast evolving and the dataset of cases is not representative. However, it seems that chatbot and intelligent assistants as well as predictive analysis are the most commonly used AI-types in the public sector.

The study concludes that *"governments across the EU are exploring the potential of AI use to improve policy design and evaluation, while reorganising the internal management of public administrations at all levels. Indeed, when used in a responsible way, the combination of new, large data sources with advanced machine learning algorithms could radically improve the operating methods of the public sector, thus paving the way to pro-active public service delivery models and relieving resource constrained organisations from mundane and repetitive tasks".*

Furthermore, the authors stress that: *"There is a high expectation from the use of AI in government – but it is clear from our current exploration that positive impact is far from straightforward and should not be taken for granted."* (AI Watch 2020: page 80)

3.3. Artificial intelligence and good governance principles

Case study: AI in the public sector in the UK

In February 2020, the UK Committee on Standards in Public Life published a report **Artificial Intelligence and Public Standards** (39) looking at how the Nolan Principles can be upheld when technologically assisted decision making is adopted more widely across the public sector. In the report, the authors note: *"Artificial intelligence has the potential to revolutionise the delivery of public services, creating an opportunity for more innovative and efficient public service delivery. Machine learning in particular will transform the way decisions are made in areas as diverse as policing, health, welfare, transport, social care, and education.*

This review found that the Nolan Principles are strong, relevant, and do not need reformulating for AI. The Committee heard that they are principles of good governance that have stood, and continue to stand, the test of time. All seven principles will remain relevant and valid as AI is increasingly used for public service delivery.

If correctly implemented, AI offers the possibility of improved public standards in some areas. However, AI poses a challenge to three Nolan Principles in particular: openness, accountability, and objectivity.

(…) Under the principle of openness, a current lack of information about government use of AI risks undermining transparency. Under the principle of accountability, there are three risks: AI may obscure the chain of organisational accountability; undermine the attribution of responsibility for key decisions made by public officials; and inhibit public officials from providing meaningful explanations for decisions reached by AI. Under the principle of objectivity, the prevalence of data bias risks embedding and amplifying discrimination in everyday public sector practice.

This review found that the government is failing on openness. Public sector organisations are not sufficiently transparent about their use of AI and it is too difficult to find out where machine learning is currently being used in government. It is too early to judge if public sector bodies are successfully upholding accountability. Fears over 'black box' AI, however, may be overstated, and the Committee believes that explainable AI is a realistic goal for the public sector. On objectivity, data bias is an issue of serious concern, and further work is needed on measuring and mitigating the impact of bias." (executive summary)

The authors recommend: *"We also provide recommendations to providers of public services, both public and private, to help them develop effective risk-based governance for AI. During project planning, our recommendations focus on legal and legitimate AI, system design, and diversity. During project implementation, our recommendations cover setting responsibility, internal and external oversight, monitoring and evaluation, appeal and redress, and training and education.*

The Nolan Principles remain a valid guide for public sector practice in the age of AI. However, this new technology is a fast-moving field, so government and regulators will

39 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/868284/Web_Version_AI_and_Public_Standards.PDF

need to act swiftly to keep up with the pace of innovation. Our recommendations set out what we believe is needed to ensure the Seven Principles of Public Life are upheld as the public sector transitions into a new AI-enabled age." (executive summary)

More specifically, the authors recommend among others:

Recommendation 7: Impact assessment
Government should consider how an AI impact assessment requirement could be integrated into existing processes to evaluate the potential effects of AI on public standards. Such assessments should be mandatory and should be published.

Recommendation 8: Transparency and disclosure
Government should establish guidelines for public bodies about the declaration and disclosure of their AI systems. The Committee makes seven recommendations to front-line providers of public services to help establish effective risk-based governance for the use of AI.

Recommendation 9: Evaluating risks to public standards
Providers of public services, both public and private, should assess the potential impact of a proposed AI system on public standards at project design stage, and ensure that the design of the system mitigates any standards risks identified.
Standards review will need to occur every time a substantial change to the design of an AI system is made.

Recommendation 10: Diversity
Providers of public services, both public and private, must consciously tackle issues of bias and discrimination by ensuring they have taken into account a diverse range of behaviours, backgrounds and points of view. They must take into account the full range of diversity of the population and provide a fair and effective service.

Recommendation 11: Upholding responsibility
Providers of public services, both public and private, should ensure that responsibility for AI systems is clearly allocated and documented, and that operators of AI systems are able to exercise their responsibility in a meaningful way.

Recommendation 12: Monitoring and evaluation
Providers of public services, both public and private, should monitor and evaluate their AI systems to ensure they always operate as intended.

Recommendation 13: Establishing oversight
Providers of public services, both public and private, should set oversight mechanisms that allow for their AI systems to be properly scrutinised.

Recommendation 14: Appeal and redress
Providers of public services, both public and private, must always inform citizens of their right and method of appeal against automated and AI-assisted decisions.

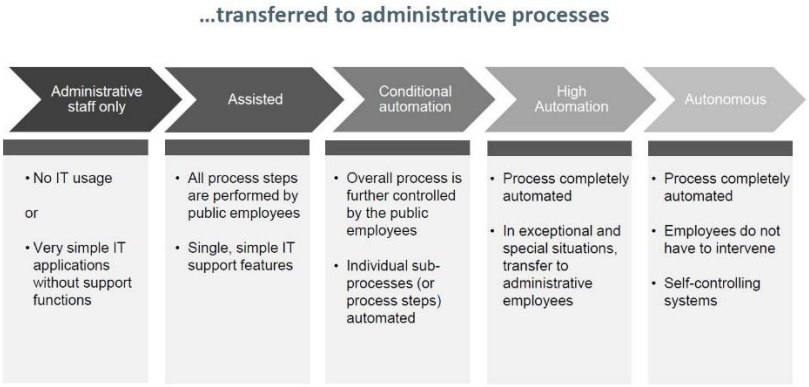
Recommendation 15: Training and education
Providers of public services, both public and private, should ensure their employees working with AI systems undergo continuous training and education.

In June 2020, the UK Office for AI published a set of comprehensive **Guidelines for AI procurement** (40). *"Artificial Intelligence is a technology that has the potential to greatly improve our public services by reducing costs, enhancing quality, and freeing up valuable time of frontline staff. Recognising this, the UK Government published the Data Ethics Framework and A Guide to using AI in the Public Sector to enable public bodies to adopt AI systems in a way that works for everyone in society. These new procurement guidelines will help inform and empower buyers in the public sector, helping them to evaluate suppliers, then confidently and responsibly procure AI technologies for the benefit of citizens."*

Among others, the procurement guidelines stress the need to consider the lifecycle management of AI systems (from the design, testing, deployment, implementation, up to the end-of-life) when taking procurement decisions, in particular as functionalities and consequences of AI systems may only manifest during or after deployment. The guidelines also stress the need to make explainability and interpretability of algorithms a design criteria.

3.4. Automated decision-making systems (ADM)

Drawing a parallel with self-driving cars, five levels of automation can be distinguished when using ADM systems in the public sector, namely: administrative staff only; assisted automation; conditional automation; high automation and full automation. As illustrated by the diagram:



Source: Round Table on Artificial intelligence and the Future of Democracy, Council of Europe, 2019

Currently, agencies in the public sector use automated decision making mostly in the category of assisted or conditional automation. In few cases, complete processes or services are automated. There are no fully autonomous systems in use in the public sector.

The legal bases for using ADM may vary in member States. E.g. according to German law, automated decision-making can be used only when there is no margin of discretion and when the decision to be made is yes or no. In all cases, it should be possible to opt out, to re-evaluate the process and to explain how the decision was taken.

40 https://www.gov.uk/government/publications/guidelines-for-ai-procurement/guidelines-for-ai-procurement

Black box effect

One of the main concerns regarding the use of ADM is the so-called black box effect. The algorithm runs through the data and comes up with a result. However, neither the programmers nor the public officials can explain how or why the ADM system came up with this particular result. The reasoning and decision making happen in a black box.

Furthermore, algorithms are often developed by private companies and declared a trade secret, they are thus not subject to public scrutiny or peer review. The lack of information on how these systems operate makes it difficult to correct the design and establish accountability.

The black box effect clearly stands in contrast to established public standards such as transparency, openness and explainability. Citizens have a right to have the decision taken about them explained as well as have a right of redress. However, in practice this becomes difficult to implement, if public officials cannot explain the reasoning and judges cannot scrutinise the basis on which a decision was taken.

Bias in data

Recent cases and studies have shown that datasets used for training algorithms are often biased. When the algorithms are thus used by public authorities to support their decision-making processes, e.g. for predictive policing or credit scoring, they tend to have discriminatory impacts and further cement existing inequalities.

Examples of discrimination have been found in facial recognition software, hiring systems

Judicial cases

With the increased use of ADM systems in the public sector, citizens also increasingly appeal decisions affecting them which have been taken with the help of ADM systems.

In a recent court judgement, the District Court of The Hague held that the System Risk Indication (SyRI) algorithm system, a legal instrument that the Dutch government uses to detect fraud in areas such as benefits, allowances and taxes, violates article 8 of the European Convention on Human Rights, namely right to respect for private and family life.[41] The judge ruled that the collective, economic welfare interest of preventing fraud weighted insufficiently against social interest of privacy. The judge further pointed out that the absence of disclosure of the inner workings of SyRI makes its usage insufficiently transparent and verifiable. The case illustrates the potential for discrimination embedded in AI-enabled solutions.[42]

4. Strengthening good governance at the local level

4.1. Smart cities

According to the UN, 60% of the world's population are expected to live in cities or metropolitan areas in 2030.[43] City authorities are facing immense challenges to deliver services to tackle problems such as pollution, traffic jams or crime. Technology, in particular data-driven digital technologies, can play a role in addressing these challenges. Smart city advocates promise that technology will make cities more sustainable, equitable and efficient.

The Congress of Local and Regional Authorities of the Council of Europe has been looking at issues relating to smart cities since 2009 and has published several resolutions to this effect. Furthermore, one of the priority areas for the Congress in 2017-2020 is the

41 https://www.loc.gov/law/foreign-news/article/netherlands-court-prohibits-governments-use-of-ai-software-to-detect-welfare-fraud/
42 https://www.theguardian.com/technology/2020/feb/05/welfare-surveillance-system-violates-human-rights-dutch-court-rules
43 SDG 11 Factsheet

improvement of urban life. In its work on smart city concepts, Congress "recommends actions to facilitate an implementation of the smart city-concept, which also safeguard and promote social and civic inclusion. These recommendations will underline the need to strengthen human rights, social justice and equality, by making sure that smart cities are cities for all."[44]

The Congress of Local and Regional Authorities of the Council of Europe and smart cities
Congress Resolution 435 (2018) and Recommendation 424 (2018) Transparency and open government
Congress Resolution 417 (2017) and Recommendation 398 (2017) Open data for better public services
Congress Resolution 394 (2015) E-media: game changer for local and regional politicians
Congress Resolution 290 (2009) E-democracy: opportunities and risks for local authorities

Smart city concepts

Smart city can broadly be understood as an approach to urban planning and service delivery in which infrastructure and services are inter-connected using digital and telecommunication technologies (ICT). So far, smart cities solutions have been developed in the context of energy supply (smart grid), urban transport (traffic control), efficient systems to light and heat buildings, detection of pollution levels, improving public health to name a few.

Smart cities as a multi-stakeholder process

The implementation of smart city solutions is a multi-stakeholder process. It requires the cooperation of different public sector institutions with private or commercial companies and "the people / the city dwellers". The multi-stakeholder dimension challenges traditional ways of delivering services and policy making.

This has implication for governance models. It calls for organisational and institutional changes to overcome siloes within public administration, ensure diverse, multidisciplinary teams and enable data sharing based on clear and transparent rules.

Smart city projects are often realised by private public partnerships. Public bodies need to follow good governance standards and take additional care when involving private or commercial companies in the design, development and implementation of data-driven, AI applications. Procurement procedure need to be open, transparent and fair. In addition, accountability, responsibilities and product liability need to be clearly defined from the outset. Private companies need to comply to the high standards of public sector.

Civil participation is crucial as smart city solution is meant to be for the people. When embarking on smart city projects, city authorities should involve residents from the start. This promotes trust and avoids resistance from the residents.

Lastly, smart city project might re-shape the relationship of public sector with citizens. E.g. if public authorities provide data in open data portals citizens can develop applications,

[44] Smart Cities: democratic and inclusive cities, Governance Committee CG/GOV12(2019)04, Rapporteur: Martin FODOR, United-Kingdom (R, ILDG) Outline report, 3 October 2019 https://rm.coe.int/090000168098351f

too. City dwellers thus might become service innovators and not merely be passive service consumers.

Cities are complex eco systems. Understanding them solely through the lens of technology and efficiency ignores underlying social, economic, environmental and political problems cities grapple with. Technology by itself cannot provide the solution to pollution, traffic jams or crime. Furthermore, digital data-driven technologies do not come for free. They are in themselves resource-intensive and value-laden. Nonetheless, data driven technologies are certainly part of the solution and have potential to improve living conditions.

4.2. Case studies: digital transformation to improve good governance at the local level

Wakefield Council, West Yorkshire – potholes

One of the main reasons that customers contacted Wakefield Council, through all channels, was in relation to highways, planning and transport issues. Specifically, Wakefield Council's highways service was seeing a high level of 'stage one' complaints relating to the reporting and service status updating of category one defects – potholes.

The project aimed to deliver a fully integrated and automated system linking customer requests via Wakefield Council's website to the back office. This was to be supported through the use of technology and business process re-engineering.

The project has enabled the council to become more efficient and effective. Complaints around lack of communication relating to pothole reports and service requests have dropped by 70 per cent since completion of the initial stages of the project.

Gloucestershire County Council, South West England – access to information through online archives

Gloucestershire County Council's archive team has delivered online registration and document order facilities that give its 10,000 users a year anytime, anywhere access to the catalogue of 800,000 items – delivering an expected £45,734 of annual efficiency savings along the way.

Customers are now able to explore the full catalogue online, at the time and place of their own choosing rather than being restricted to physical visits within office hours. With the collections being available to search 24/7 they are now more accessible to a wider range of people at a time that is convenient to them. Google Analytics have suggested that 47 per cent of users access the online catalogue website between 17:00-21:00 and that use over the weekends (particularly Sunday) is common.

Anecdotal evidence also suggests that users are becoming more aware of the richness of the content in the archives – when they use search terms the results that are returned often open up new lines of research.

Sunderland City Council, North East England – Digital transformation in waste services

In early 2017, the council was receiving hundreds of telephone calls to report missed waste collections – on average around 600 a month. In challenging financial times, the council saw the opportunity to both improve the service and deliver savings by reducing the need to rectify previous failures and encouraging a shift in reporting channel from the telephone to the web.

Sunderland's digital transformation of waste services has delivered a significant digital channel shift and change in user behaviour – from just 14 per cent of transactions online in financial year 2016/17 to 55 per cent in 2018. It has reduced missed waste collection reports by 7,000 and delivered £136,364 in savings.

North Lanarkshire Council, Scotland – Sheltered Housing Connectivity Project

North Lanarkshire Council has improved digital inclusion by providing information technology hubs in each of its housing complexes which are specifically designed to support older people to live independently. This project installed wi-fi in such housing complexes to help ensure the tenants and other older people from the wider community who attended social activities in the common areas had access to the range of benefits and opportunities that digital inclusion could provide. It has also improved intergenerational relationships between young people and older people in the community.

Aberdeen City Council, Scotland – support for young people with experiences in social care

An innovative app launched by Aberdeen City Council last year has taken on additional importance in the current pandemic lockdown. The app means that young people can maintain contact with the social work professionals who support them and their families. Since March 2019, the 'Mind Of My Own' app has helped these young people make their voices heard and make decisions on their lives by saying how they are feeling, what support they need and to tell their care worker about the things that are important to them.

The Council's Integrated Children's and Family Services team recognises that the current, unprecedented situation and the social isolation it brings could present challenges for many young people who may be finding the lack of face-to-face contact difficult. With the use of the 'Mind Of My Own' app, users can help overcome feelings of anxiety, isolation or loneliness by sending their worker a statement, which will be received by email, to let them know how the user is feeling and allow the individual to feel connected and digitally close to them at this time.

Blaenau Gwent Borough Council, Wales – using data to target support

As part Blaenau Gwent County Borough Council's response to supporting the most vulnerable during the pandemic, virtual locality response teams mapped local assets and support to enable the community to support itself. The Council also collected data to identify those who may have needed more support, such as those on the shielding lists. Councillors were a vital contributor to the collection of this data given their local knowledge of residents in their ward. The Council were able to match volunteers to individuals to provide the support they needed. It has also helped them better understand the life experience of residents, some of whom have fed back on how they welcomed the interaction in this way.

Bath and North East Somerset Council, South West England – Assistive Technology in the Home

With average residential care costs typically £700 per week, the council wanted to reduce the number of adults entering residential care by using assistive technology to help people to live independently at home. The Council is embedding a range of assistive technology apps and devices, across referral, assessment and care aspects of its

reablement and rehabilitation services to help people live well and independently in their own homes.

Partnered by business and the national representative body for technology enabled care services, the project complements health sector strategies, and usage data will help develop a central hub of wellbeing information. Embedding digital technology into the council's care offers will realise a small reduction in residential and non-elective admissions to residential care which in turn will generate savings in the costs of providing support for service-users.

London Borough of Hackney – Predictive in Family Services

London Borough of Hackney wanted to manage demand on its pressured children's services by identifying those families at risk and intervening earlier. It piloted and has now mainstreamed a predictive model which analyses various data sources, including school and health records, to judge families' risk scores. With 80% accuracy, it identifies and alerts social workers to those who need extra support. It includes an information sharing platform, and a secure alert system which sends escalated risk scores to social work teams to support their professional judgement.

Using this model has helped the council achieve savings through increased efficiency in its children's services. The early and effective interventions made available as a result of using this model is also expected to reduce future costs.

PART IV – THE INTERNATIONAL DIMENSION

1. Recent developments

The working group and the CDDG have already examined an *overview on Artificial Intelligence, Democracy and Governance: ongoing work by other international organisations*. the sections below provide an update on the most recent developments.

1.1. The role and work of the European Union

In the next five years, the European Commission will focus on three key objectives regarding digital transformation[45]:

- Technology that works for people;
- A fair and competitive economy; and
- An open, democratic and sustainable society.

In February 2020, the EU published its overall strategy entitled "**EU for Shaping the Future**". It consists of the **White Paper on AI – a European approach to excellence and trust** [46] and the **European strategy for Data**[47].

President van der Leyen emphasized that the Commission: *"will act to ensure that AI is fair and complaint with the high standards Europe has developed in all fields. Our commitment to safety, privacy, equal treatment in the workplace must be fully upheld in a world where algorithms influence decisions. We will focus our action on high-risk*

45 https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age_en
46 https://ec.europa.eu/info/files/white-paper-artificial-intelligence-european-approach-excellence-and-trust_en
47 https://ec.europa.eu/info/files/communication-european-strategy-data_en

applications that can affect our physical or mental health, or that influence important decisions on employment or law enforcement."[48]

The approach presented builds on and further specifies the April 2018 Declaration of co-operation on Artificial Intelligence that has been signed by all EU Member States;[49] the Commission's Communication of 2018 on Artificial Intelligence for Europe;[50] and the 2018 Coordinated Action Plan.[51]

Furthermore, existing laws like the EU General Data Protection Regulation (GDPR)[52] apply to the design, development and implementation of AI systems. Entirely automated individual decision-making, including profiling, is not allowed under GDPR unless: i) the use of algorithms is allowed by law and suitable safeguards are provided; or is ii) necessary to enter or perform a contract: i.e. there is no other way to achieve the same goal; or iii) the individual has provided explicit consent.[53]

"During the plenary session (19-23 October 2020) of the European Parliament in Brussels, MEPs voted on their vision of how the EU can best regulate Artificial Intelligence (AI) and what AI rules are needed on ethics, liability and intellectual property rights, so that the EU can become a global leader in its development. MEPs adopted proposals on several guiding principles that must be taken into account by future laws including a human-centric, human-made and human-controlled AI; safety, transparency and accountability; safeguards against bias and discrimination; right to redress; social and environmental responsibility, and respect for fundamental rights." (54)

The EU Commission has also announced that it will pass new legislation on the **Digital Service Act** in 2020.[55] The new Digital Services Act package aims at modernising the current legal framework for digital services. It has two main pillars: *"First, the Commission would propose clear rules framing the responsibilities of digital services to address the risks faced by their users and to protect their rights. The legal obligations would ensure a modern system of cooperation for the supervision of platforms and guarantee effective enforcement. Second, the Digital Services Act package would propose ex ante rules covering large online platforms acting as gatekeepers, which now set the rules of the game for their users and their competitors. The initiative should ensure that those platforms behave fairly and can be challenged by new entrants and existing competitors, so that consumers have the widest choice and the Single Market remains competitive and open to innovations."*

With a view to the Digital Service Act, two EU Parliament Committees published reports in April 2020 emphasising among others the need for more transparency and for auditing algorithmic systems used in content moderation, and curation. (56)

48 https://ec.europa.eu/commission/presscorner/detail/en/ip_20_273
49 https://ec.europa.eu/digital-single-market/en/news/eu-member-states-sign-cooperate-artificial-intelligence
50 COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, Artificial Intelligence for Europe, Brussels, 25.4.2018 COM(2018) 237 final
51 https://ec.europa.eu/digital-single-market/en/news/coordinated-plan-artificial-intelligence, Brussels, 7.12.2018, COM(2018) 795 final
52 https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1532348683434&uri=CELEX:02016R0679-20160504
53 European Commission, Can I be subject to automated individual decision-making, including profiling?
54 https://multimedia.europarl.europa.eu/en/artificial-intelligence-final-vote-statements-rapporteurs_I197840-V_v

55 https://ec.europa.eu/digital-single-market/en/digital-services-act-package
56 European Parliament Committee on Legal Affairs: Draft report with recommendations to the Commission on a Digital Services Act: adapting commercial and civil law rules for commercial entities operating online, PE650.529v01-00, 22 April 2020; European Parliament Committee on the Internal Market and Consumer Protection: Draft report with recommendations to the Commission on Digital Services Act: Improving the functioning of the Single Market, PE648.474v02-00, 24 April 2020.

In July 2020, the Joint Research Centre published a Science for Policy Report entitled "**AI Watch Artificial Intelligence in public services: Overview of the use and impact of AI in public services in the EU**" (57). The report aims to develop a baseline and a conceptual framework for the analysis of AI-enabled technologies in the public sector. The authors used an inventory of 230 AI use cases and analysed 13 national AI strategies, including Norway and Switzerland.

In a related Joint Research Council Science for Policy Report, **Exploring Digital Government transformation in the EU** (58) published in 2019, the authors conducted a comprehensive literature review of current digital government in the EU and *"caution that digital government transformation should be researched empirically and with due differentiation between evidence and expectation"* (page 9).

The authors highlight ten policy areas that merit more in-depth research, among others understanding better the effect of AI on public sector employment, platformisation versus distributed networks and tackling restrictions to data flows to build a European data ecosystem, to name a few.

Another relevant area of activity in the EU is the upcoming **EU Action Plan on Human Rights and Democracy 2020-2024**.[59] The new Action Plan aims to ensure that the EU plays a greater role in promoting and defending human rights and democracy throughout its external action. It also addresses the challenges and opportunities that accompany the transition to the digital age.

This Action Plan identifies priorities around five mutually reinforcing lines of action (60):

- Protecting and empowering individuals;
- Building resilient, inclusive and democratic societies;
- Promoting a global system for human rights and democracy;
- New technologies: harnessing opportunities and addressing challenges;
- Delivering by working together.

Under each line it sets concrete objectives, for instance:

- Develop tools to detect and respond to early signs of closing civic space and space for civil society, including the use of digital technologies;
- Support the development of child-friendly justice systems for all children in contact with the law and deprived of liberty;
- Develop a new horizontal global human rights sanctions regime to tackle serious human rights violations and abuses;
- Refine electoral observation methodology to monitor and assess the use of social media and other digital technologies during election campaigns against international standards;
- Promote the accessibility of technologies for persons with disabilities.

57 https://publications.jrc.ec.europa.eu/repository/bitstream/JRC120399/jrc120399_misuraca-ai-watch_public-services_30062020_def.pdf

58 https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/exploring-digital-government-transformation-eu

59 https://ec.europa.eu/transparency/regdoc/rep/10101/2020/EN/JOIN-2020-5-F1-EN-MAIN-PART-1.PDF

60 https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_490

The strategy will thus aim at countering disinformation, adapting to evolving threats and manipulations online, including addressing the issue of micro-targeting for political ads, and at supporting free and independent media.

1.2. OECD

The **OECD.AI Policy Observatory** was launched in 2020.[61] OECD.AI provides an interactive database of AI policies and initiatives from countries, territories and other stakeholders to facilitate international co-operation, benchmarking and help develop best practices. In addition, OECD.AI compares policy responses and provides data and metrics on AI to inform policy making.

The **OECD OURdata Index** assesses governments' efforts to implement open data in the three critical areas - Openness, Usefulness and Re-usability of government data.[62] It is part of the Open Government Data (OGD) projects which aims to progress international efforts on OGD impact assessment.

In 2020, the OECD developed a new Index, the **OECD Digital Government Index**. It has the following six dimensions: Digital by design, Data-driven, Government as a platform, Open by default, User-driven and Proactiveness.

1.3. World Economic Forum

In June 2020, the World Economic Forum's Artificial Intelligence and Machine Learning Platform published "AI Procurement in a Box", a publication which provides an overview of best practices for AI procurement and tools that support their implementation by government teams.

It is a practical guide that helps governments rethink the procurement of AI technologies with a focus on innovation, efficiency and ethics. It consists of several elements: Project overview, AI government procurement guidelines, a Workbook and Challenges and opportunities during implementation.

One of the reasons for developing the toolkit is that:

> "Governments do not have the latitude of using the inscrutable "black box" algorithms that increasingly characterize AI deployed by industry. Without clear guidance on how to ensure accountability, transparency and explainability, governments may fail in their responsibility to meet public expectations of both expert and democratic oversight of algorithmic decision-making and may inadvertently create new risks or harms." (Guidelines page 4)

The AI Government Procurement Guidelines are as follows:

1. Use procurement processes that focus not on prescribing a specific solution, but rather on outlining problems and opportunities and allow room for iteration.
2. Define the public benefit of using AI while assessing risks.
3. Aim to include your procurement within a strategy for AI adoption across government and learn from others.
4. Ensure that legislation and codes of practice are incorporated in the RFP.

61 https://oecd.ai/
62 https://www.oecd.org/gov/digital-government/open-government-data.htm

5. Articulate the technical feasibility and governance considerations of obtaining relevant data.
6. Highlight the technical and ethical limitations of using the data to avoid issues such as bias.
7. Work with a diverse, multidisciplinary team.
8. Focus throughout the procurement process on mechanisms of accountability and transparency norms.
9. Implement a process for the continued engagement of the AI provider with the acquiring entity for knowledge transfer and long-term risk assessment.
10. Create the conditions for a level and fair playing field among AI solution providers.

ELEMENTS FOR THE CONCLUSIONS

- The impact of digital transformation on democracy and governance has been both positive and negative. Council of Europe member States are aware of this dual impact and have been devising strategies and action plans to harness the benefits while mitigating the risks. These strategies, however, focus on good governance rather than democracy.
- The impact of digital transformation on democracy concerns the following main areas:
    - Elections, public opinion formation, legitimacy of representative institutions;
    - Characteristics of the political debate;
    - Functioning of political parties;
    - New ways to ensure civil engagement and civil participation in public decision-making;
    - Consequences on the traditional forms for exercising freedom of association and assembly;
    - New ways to exercise civil oversight of public institutions;
    - New role for the private sector in the public sphere;
    - Issues relating to data (access, privacy, quality and use for the public good).
- Some of these areas are covered by various Council of Europe texts and documents, even if not in a systematic manner and without a comprehensive approach.
- The CDDG may wish to consider whether further Council of Europe standards or guidance in some of these areas would be of added value for member States.

- As regards good governance, a number of recommendations to public administrations clearly emerge from the work carried out thus far by the working group on democracy and technology:

Recommendation 1: Conduct a digital maturity assessment

Digital maturity focuses on the readiness of the organization and not the technology used. For this it is vital to understand the drivers behind digital transformation strategies for public administrations. Ultimately, the goal should be to make "digital" part of the overall culture and not leave digital transformation up to a dedicated team of specialists or the "IT department in the basement". A mature digital transformation calls for selective innovation and updates to new technologies. The assessment is about how these new technologies are aligned with policy and organizational goals and are they supporting the solutions to complex problems public administrations are facing.

Recommendation 2: Integrate agile and user-centred design

To create user-centric digital transformation projects, public administrations should use agile project management approaches when they plan, design, and implement digital services. These are practices that have been introduced by government digital service teams and help to simplify digital service products. Originally hailing from the software development industry, public administrations have begun to design digital services based on user needs. These are the expectations from both internal users (public servants) and external users (business and citizens). The goal of user-centricity is to increase social inclusion and accessibility. This will increase citizen satisfaction and overall trust in service delivery, because they will feel respected.

Recommendation 3: Building competences toward digital adaptivity

In order to be able to speak eye-to-eye with external IT service providers, digital competences in public administrations need to be (re-)build. The goal is that public servants understand the most recent technology trends and evaluate whether technologies like blockchain or artificial intelligence should or should not be applied in the public sector. This requires a digital mindset and digital adaptability. Both will enable civil servants to switch between different types of technologies and be able to assess whether they provide an appropriate and inclusive solution to the complex problems public administrations are dealing with.

- The Centre of Expertise for Good Governance may wish to follow up on this study, in order to support member States in their effort to ensure that digital transformation of the public administration is in line with the 12 Principles of Democratic Governance and enhances their implementation.