



The Federal Government's key questions to the Data Ethics Commission

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Coalition Agreement:

“We will set up a data ethics commission that within the next year will provide the government and parliament with proposals on how to develop data policy and deal with algorithms, artificial intelligence and digital innovation. Clarification of data ethics questions can add impetus to the process of digital development and can help define an approach towards resolving social conflicts within the area of data policy.”

Key questions for the Data Ethics Commission:

Digitisation is fundamentally changing our society. New data-based technologies can be beneficial for people's everyday lives as well as for industry, the environment, science and society as a whole. Their potential is enormous.

At the same time, digitisation also clearly brings certain risks. Numerous ethical and legal questions are raised, particularly concerning the effects of these developments and the desired role of new technologies. If digital change is to benefit the whole of society, we need to examine the possible consequences of new technologies and establish ethical safeguards.

One challenge is to develop 21st-century law in a way that protects human dignity (“a human being must not become a mere object”) and guarantees fundamental and human rights such as the general right of personality, the right to privacy, the right to informational self-determination, freedom from discrimination, freedom of science, freedom to conduct a business, and freedom of expression and information – bringing all of these rights into equilibrium with one another.

There are complex tensions between the principles of the common good, progress, innovation and solidarity.

The task of this Commission – having identified the current state of discussion and legislation at the European and international level, ascertained the possibilities for positive action at the national level, and given special consideration to sensitive areas – is to develop ethical standards and guidelines for the protection of individuals, the preservation of social cohesion and the safeguarding and promotion of prosperity in the information age. The Commission is also tasked with providing the Federal Government with recommendations and regulatory proposals on how ethical guidelines can be developed, respected, implemented and monitored. These proposals should also include a description of the underlying concepts used, as well as assessments of the possible consequences and side effects.

The public is to be appropriately involved in the work of the Commission.

In order to help the Data Ethics Commission carry out its work, the Federal Government has provided it with the following key questions in three areas:

I. Algorithmic decision-making (ADM)

Advanced automation systems are increasingly shaping economic and social realities and people's everyday lives. Data collection and analysis enable the development of innovative interpretation models, which are also used to make or prepare algorithm-based decisions. Algorithms make it possible, for example, to recognise patterns and differences in the behaviour of different groups. Whether it is a matter of setting individual prices in e-commerce, assessing creditworthiness or selecting candidates in recruitment procedures, people are being evaluated by technical processes in more and more areas of life. Data evaluation and predictions about individual behaviour can offer opportunities (e.g. aiding research, strengthening innovation within industry, increasing the efficiency of data processing processes), but they also harbour risks (e.g. for individual freedom and self-determination, for participation and equal opportunities among certain individuals and social groups). Social inequality and discrimination against individuals or groups of individuals can be perpetuated if biases are incorporated into the programming of an algorithm or its training data. These risks are particularly acute in participation-relevant and personality-sensitive ADM processes.

Against this background, the following questions arise, especially with regard to consumer protection:

- What are the ethical limits to using ADM processes? Or what ethical limits should there be?
- Can it be ethically necessary to use ADM processes?
- Are there characteristics, criteria or certain kinds of data that should not be incorporated into ADM processes – due to their age or origin, for example?
- How can we determine which prejudices and distortions in which areas are ethically undesirable? What effects can the use of ADM processes have on social groups?
- What regulatory approaches could be used to prevent manipulation, unequal treatment and discrimination?
- Is it advisable to have a graduated regulatory framework based on the risk to social participation or the potential for discrimination?
- How can the reliability, reproducibility and scrutiny of ADM be guaranteed?
- Are there limits to the use of ADM if its use and criteria cannot be explained to the people affected?
- Are there test methods that can make self-learning ADM open to scrutiny?

II. Artificial Intelligence (AI)

With the development of AI, industrial and administrative environments are deploying more and more highly automated systems that use AI methods and have the ability to “learn” through the use of training data. In addition, work is being done on simulating the cognitive functions of the human brain. The developments in the field of artificial intelligence raise the question of how the dignity, autonomy and self-determination of the individual can be safeguarded and fostered. This leads to questions such as the following:

- What fundamental ethical principles must be observed when developing, programming and using AI?
- Where do the ethical boundaries lie for using AI and robots, especially in special areas of life such as care/assistance and dealing with particularly vulnerable groups (children, the elderly, people with disabilities)? Can it be ethically necessary to use AI?

- Is “ethics by design” possible for AI? If so, how could it be implemented and monitored?
- How can it be ensured that machines working on an AI basis can be controlled?
- To whom are the creations/inventions generated by AI to be ascribed? Who should bear the responsibility for malfunctioning systems? How can the responsibility of the actors involved in the development and use of AI systems (programmers, data scientists, clients, etc.) be made transparent?
- What else will be necessary in the future to sustainably guarantee the freedoms and fundamental rights upon which our society is based?

III. Data

Digitisation is characterised by an increase in the volume of data (big data), by a vast accumulation of data by individual actors, by the high speed of data processing (real time), by connectivity (internet, complex networks of actors, Internet of Things), by the increasing ubiquity and permanence of data, and by the further development of various methods of data analysis. As the amount of available data increases, so too does the ability to undertake more granular analyses. Data is used to develop new business models and change value-added chains and work processes. By some, data is regarded as a commodity that enables value creation (“data economy”).

At both the national and European level, there are current laws (e.g. the General Data Protection Regulation, open data legislation) and numerous legislative initiatives that concern the handling of data (e.g. the ePrivacy Regulation, legislative proposals regarding the free flow of data). On the one hand, these are intended to safeguard fundamental rights such as the right to informational self-determination, while on the other hand they are intended to enable useful and innovative data processing. Further proposals are discussed as to whether and how access to data, use of data, trade in data, and rights to data could be regulated for the first time or be better regulated.

In the process, the following questions may arise regarding the handling of data in general, data access and the use of data:

- What are the ethical limits to the economization of data?
- Who should be permitted to derive economic benefit from data?
- Should there be an obligation to offer payment models?

- Is it advisable to have uniform rules that apply equally to all data? Or should preference be given to rules that apply to specific areas (e.g. for brain data)? What should be the connecting factor for rules that apply to specific areas?
- What consequences do existing access and exclusivity rights to data have for competition and innovation? And what consequences would additional access and exclusivity rights to data have?
- Is there a need for the state to offer support as part of its provision of general public services so that citizens can navigate the internet and social networks in a responsible, competent and confident manner and learn how to handle data? Can the provision of data, in particular open data, become part of the provision of public services by the state?
- How much transparency is necessary and appropriate to safeguard the right to informational self-determination and to enable citizens to participate in economic life in a self-determined manner?
- Do particular life circumstances require special protection concepts for specific user groups?
- Are the existing institutions in sensitive areas sufficient to ensure data is used ethically? How can adequate stakeholder representation be ensured in the long term?
- What effects can extensive data collections have on the functioning of the market economy (e.g. competitiveness, information asymmetry between suppliers and consumers, the possibility of developing innovative products) and democracy (e.g. recording and analysing behaviour in social networks)? If necessary, how can action be taken against data power/data silos (especially intermediaries)?
- Should data or access to data be declared a public good in certain cases? In which cases and under which ethical criteria?
- The use of non-personal data can have collective effects. For example, individuals or certain population groups may be placed at a disadvantage because data analysis shows that payment habits are worse in a particular neighbourhood. What regulatory instruments would be needed for this? In which sectors?

- Are statutory regulations on improving access to data possible, necessary and advisable?
- Should data processing be prohibited in certain cases for ethical reasons, for example in cases involving certain types of data (e.g. political views; brain data) or certain areas of use (e.g. profiling for political purposes or for use in elections)?
- Under what circumstances can there be an ethical obligation to use data?
- Does the legal system sufficiently recognise the possible benefits that data processing can have for the common good? If not, how can this be achieved?
- Is it possible and advisable to create experimentation clauses for testing new applications or new regulatory instruments?
- Does it make sense to invest in data infrastructures? If so, in which ones?
- How can the constitutionally protected interests of individuals, enterprises, science and art be reconciled with the public interest in the use of data?