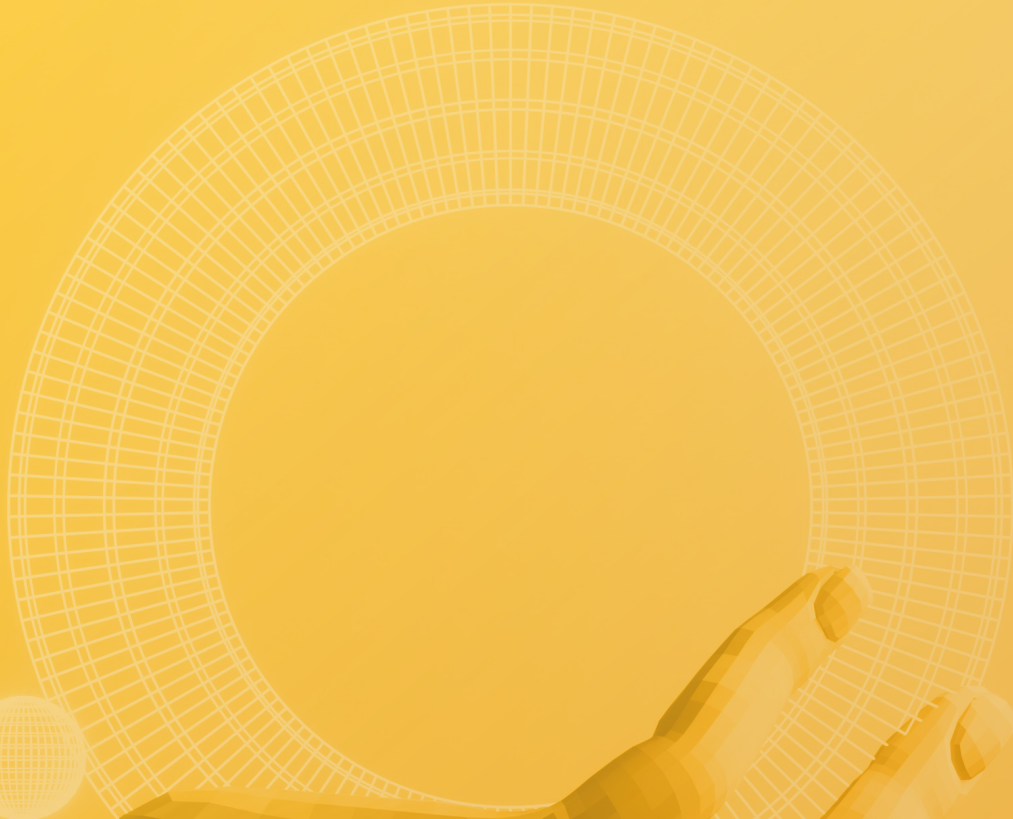**upgrade democracy**

Visions: Democracy and Technology

Part 2

Analytical Artificial Intelligence and Representation

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Many people associate artificial intelligence (AI) with the promise that it will make politics more efficient and better equipped to respond to societal developments. The collection and analysis of large datasets, the measurement of citizens' behaviour and interests, and the continuous evaluation of state actions through analytical AI are hoped to deliver more rational and tailored solutions. At the same time, early applications show that AI does not reduce existing inequalities; in some cases, it even exacerbates them.

🗨 What is it about?

Analytical AI holds great potential, particularly for public administration and political operations. It is primarily intended to assist in decision-making by continuously collecting data and analysing extensive datasets (ideally in real time). Examples of political practices that can become much more widespread through analytical AI include modelling complex relationships, predicting trends, or managing scarce resources. In recent years, both computing capacities and the digital datasets available for training and subsequent applications have increased dramatically. There have also been spectacular advances in some areas of application (e.g., in medicine, with tumour detection). These developments have undergone rapid leaps since the 2000s: from pattern recognition in machine learning to neural networks modelled after human brains that can derive relationships from complex data collections without predefined classification. Based on neural networks, continuous adjustments, iterative learning effects, and probability predictions are easier and more consistently depicted.

These methods differ from human intelligence mainly in that they focus on probabilities and provide neither causal assumptions nor justifications, although much work is being done in this area. The results of these AI methods depend on the models extracted from the training data and the specifics of the individual case. This leads to decisions and assessments that are sometimes incomprehensible to humans. However, for a wide range of specific tasks (such as in the field of language or image recognition), very impressive results can be produced using this method, often surpassing the capabilities of human classification. They quickly lead to results, providing what is expected and desired in many societal contexts. The ability to speed up or relieve decision-making processes makes these technologies an attractive option for the political sphere as well.

What are the potentials and risks?

How do these methods affect the quality of democratic governance? The widespread use of analytical artificial intelligence is particularly relevant where it impacts the relationship between decision-making bodies and citizens.

Technological Diffusion of Responsibility

This first occurs on the immediate level through the technologisation of processes. On the one hand, more and better-automated decision-making processes can have positive effects on the efficiency, speed, and differentiation of political decisions. This would increase the legitimacy of the decisions made and the satisfaction with the political system. However, questions of responsibility and the political feedback loop quickly arise – are decisions being supported or outsourced? There is a danger of suggesting that the decisions made are not based on human judgment and are not the result of negotiation processes but are instead inevitable and without alternatives. Highly technologised processes, particularly those based on machine learning, make it harder or even impossible to comprehend the basis of decisions. This can reinforce the perception that there is a significant distance between the rulers and the ruled.

Since analytical artificial intelligence can only evaluate existing data, its functionality is retrospective. This carries the risk that AI will perpetuate existing inequalities and prejudices when making predictions. Moreover, these technologies are often used precisely where automation is intended to save costs. However, this often affects vulnerable groups in particular – consider, for example, predictive policing or the administration of the welfare state. It is important not to forget that the use of AI also involves resources, whose availability ultimately determines how accurately the models work and who can use them and how.

The Exact Measurement of Citizens

Even where technologies do not directly contribute to the implementation of decisions but are only used to prepare them, they impact the relationship between citizens and politics. A central aspect here is the representation of citizens' interests and concerns in politics. Traditionally, this has been linked to formal political processes, particularly elections or referendums. In complex democracies, this is supplemented by the media-constituted and media-constructed public (or rather: published) opinion, often interpreted as representative of the population's views, and by polling, which measures moods and opinions and thus provides orientation for politics. Analytical AI methods offer a new approach here: they allow for much more comprehensive and direct analysis and interpretation of the behaviour of broad sections of the population and the tracking of reactions to political measures (or their simulation). Political institutions thus gain a new tool to tailor policies to citizens. In principle, this can expand the legitimacy of politics. For instance, new laws may better meet citizens' needs or be evaluated more quickly in terms of their impact.

However, it should be noted that both active political participation procedures and media discourse always have strongly distorting effects, significantly favouring privileged positions. Conversely, the direct response of politics to citizens' needs or opinions is not necessarily a sign of democratic action. This behaviour can also be interpreted as a technocratic and manipulative form of governance, which risks damaging the relationship between citizens and politics in the long term.

Tailored Election Campaigns and Fragmented Communication

This is further exacerbated by the fact that the possibility of measuring the population in real time, along with the classification and modelling of behaviour expectations, also in-fluences the generation of democratic legitimacy in another way: in relation to addressing citizens in the context of election campaigns. For at least 20 years, we have observed a trend towards increasingly data-driven election campaigns. This will be further intensified by the comprehensive analytical capabilities. It is expected that newer practices, such as microtargeting – targeted addressing of very small subgroups – will be further refined and expanded. Here, too, two interpretations are possible: On the one hand, politics can respond more specifically to the wishes and attitudes of the population. In an ideal scenario, politi-cal programmes and decisions would thus become easier to understand, and the resulting voting decisions would better reflect the voters' actual interests and concerns. On the other hand, however, the space in which democratic discourse takes place becomes increasingly fragmented. As political communication and, in particular, election promises become more individualised, it becomes more and more forgotten that parties in the representative system have the task of embodying political compromises and finding the broadest possi-ble consensus. Mutual understanding, the weighing of goods, or the need for compromise could be further pushed into the background by a personally tailored political approach through which everyone only receives messages that suit themselves.

✎ In Conclusion

The procedures summarised here as analytical artificial intelligence have great potential to permanently change the functioning of state systems and organised political actors such as parties – especially as more and more applications are being developed. Public and private actors are generating more and more detailed data about society for various reasons. At the same time, expectations of politics to be particularly responsive and efficient are increasing. All these factors make this digital technological trend particularly stable. This is true despite the fact that the procedures used have predictable limits and problems in their application to social contexts and have therefore increasingly and rightly been problematised and politicised in recent years.

We will need to closely observe whether the constant monitoring and analysis of the population, combined with the automated evaluation of state actions, could even undermine the central importance of elections and thus active participation. This could support a transformed understanding of democracy, where actors try to generate approval for the government in the name of the people not through discourse and negotiation, but through efficiency and soundlessness. Legitimacy is thus generated in the long term through efficiency. Regardless of whether such a far-reaching reconfiguration occurs, we must keep in mind whether and how automated decision-making and the differentiated representation of citizens promote an instrumental view of society and manipulative practices.

◉ Further Reading

- Algorithm Watch / Bertelsmann Stiftung 2020: Automating Society Report 2020, Berlin // Report tracing how automated decision-making processes are spreading across various European countries and the European Union.

- Margetts, Helen 2022: Rethinking AI for Good Governance, in: Daedalus 151: 2, 360 – 371. // *Research article that tries to emphasise the potential of AI procedures for democratic governance.*

- Mohabbat-Kar, Resa / Thapa, Basanta 2018: (Un)berechenbar? Algorithmen und Automatisierung in Staat und Gesellschaft, Berlin // *German-language, open-access anthology published by the Competence Centre for Public IT, discussing the use of data and algorithms in politics and administration and summarizing recommendations from politics and science.*

- Ulbricht, Lena 2020: Scraping the demos. Digitalisation, web scraping and the democratic project, in: Democratisation 27: 3, 426 – 442. // *Scientific article discussing the possibilities of capturing and representing the population and the resulting democratic risks.*

- Yeung, Karen 2023: The New Public Analytics as an Emerging Paradigm in Public Sector Administration, in: Tilburg Law Review 27: 2, 1 – 32. *// Research article that analyses from a legal perspective why a new form of public management is emerging and what its normative problems are.*

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