Power in Times of Artificial Intelligence¹

This issue of Delphi is about power in confusing times, in times of artificial intelligence. It shows what the new technological power means for the fundamental freedoms of us humans and our democracy. A wise starting point is that AI must not be considered in isolation, but rather in the context of the concentration of economic power and digital technological power as it exists today. This is so because AI is developed and deployed to a large extent by those major digital players colloquially called the GAFAM (Google, Apple, Facebook, Amazon, Microsoft) which already have a strong grip on shaping the internet and digital technologies as we all use them. AI will be added to existing technology and business models and increase their grip even further, if we do not take the appropriate measures of regulation. The analysis of AI requires a holistic view of business models of these digital technologies and of the power they already exert today.

We need to understand not only theoretical potentials benefits of AI, which without doubt exist. We must also and foremost understand the power that is created by the combination of the different digital technologies in the hands of the corporations that dominate the internet and the state, and which, due to the rapid pace of technological development, unfolds its own dynamic that challenges democratic processes.

To understand this power and its consequences, a holistic view is needed which goes beyond market impacts. We must ask what it means for government and democracy that nearly all software for the thinking and communicating state, whether on the level of the EU or EU Member States, is procured from Microsoft and that nearly all information is stored on cloud systems. 90% of these systems are owned by US suppliers, with Amazon accounting for almost 30%. We must also be aware that more than 90% of internet searches are carried out on Google, which in turn knows more about everyone individually than individuals and their family members themselves. The fact that an ever growing section of society exclusively gets its news from Facebook and YouTube must also be a concern. What will the impact of AI, developed and deployed by the thus already powerful corporations be on individuals, democracy, governments and markets?

Technology and (economic and political) power are entering into an ever closer symbiosis. A technology that knows more about man and the world than man knows about himself, and that is given ever more decision-making powers, leads to a massive asymmetry of knowledge and power in the relationship between man and machine.

Classical models of action and decision-making in democratic societies are challenged by these developments. The question of technical power and the control of technical power is raised in a new way.

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¹ In March, Paul Nemitz and Matthias Pfeffer are publishing *Prinzip Mensch – Macht, Freiheit und Demokratie im Zeitalter der Künstlichen Intelligenz* (Dietz Verlag) <<https://prinzipmensch.eu.wordpress.com/>>. An English edition is forthcoming later this year. The author is writing here in his personal capacity, not necessarily representing the position of the European Commission.

Who will decide in future? And, as Shoshana Zuboff asks, 'Who decides, who decides?'²

When technology changes the power to shape things so radically, it is not surprising that the fundamental intellectual and cultural concepts on which modern societies are based are subjected to a stress test.

We are already experiencing the second stage of the digital 'revolution' with the current upheavals of populism, fake news, foreign propaganda and the manipulation of companies like Cambridge Analytica, based on Facebook data. And now that we look forward to AI and quantum computers, it is worth taking a look back at the beginning of the digital age to understand and learn why the great hopes of freedom and empowerment of individuals that were associated with it have largely not been fulfilled. On the contrary, we now live in a world not only of unsustainable climate change and pollution, but also of an increasingly unsustainable concentration of power and undermining of democracy and individual freedom, including informational self-determination.

In the current second phase, we can no longer afford the mistakes of the early days of digital technology and the global Internet. Technology and knowledge are developing rapidly, seemingly exploding (some speak of an exponential increase), which should lead to a transition to a whole new quality in the near future.

On the other hand, there are the deliberately slowed down processes of deliberative democracies. Slowed down, because it is an important experience of human rule, that reflective and discursive processes are vital before opinion-forming and decision-making processes in democracies are completed. A consequence of this insight is also the separation of powers and the traditional guarantees of the free press.

If technology creates facts and develops faster than democracies decide, does that mean that in this game of hare and hedgehog, technology will win for sure? Does technology even have its own developmental logic, which is proving increasingly immune to democratic control? Today, technology is creating facts at a pace that risks answering the question of power in its favour by this speed alone.

The question of who will rule in the future and who will make the decisions must be asked today in light of developments in AI and Quantum computing. We risk being ruled by AI not only through artificially intelligent systems which self – develop, as identified by Stuart Russel and others,³ but also through the application of these technologies by powerful corporations to dominate our democracies and free will, both individual and collective.

Whoever wants to answer these questions with a firm commitment to democracy must not only bring the representatives of technology and democracy into a new conversation. We also need a clear commitment to support the good functioning of democratic process by the 'Technical Intelligentsia', a clear commitment to the rule by democracy and the rule of law rather than the rule of technological power and speed. This also means: Democracy must be willing to use its most noble tool, the law, to the set the rules in this ever more technologically colonised world, including for AI.

2 Shoshana Zuboff, *The Age of Surveillance Capitalism* (Profile Books 2019)

3 Stuart Russel, *Human Compatible, Artificial Intelligence and the Problem of Control* (Viking/Penguin 2019)

In his seminal Study of 1976,⁴ Eugen Kogon, a frequent panellist with Adorno and Horkheimer, the protagonists of the critical Frankfurt School, showed that the political attitudes of engineers in Germany are characterised by a high degree of responsibility for the political and societal impacts of their inventions. It was the time in which 'The Physicists' by the swiss play right Dürrenmatt had been read in school by all children on their path to an entry exam for university. It is this sense of responsibility, which at the time was spurred by the threat of weapons of mass destruction and atomic power, which today must be mobilised for fending off the threats to individual freedom, fundamental rights, democracy and sustainability through unchecked technological power and its concentration in the hands of few powerful companies, at the top of the stock exchange.

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4 Eugen Kogon, *Die Stunde der Ingenieure* (Düsseldorf 1976)