Harnessing Artificial Intelligence the European Way

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Ingolf Pernice is generally acknowledged as a great European and a master of European law. In the last 10 years, he has also become an expert on law and digital technologies, especially on questions of the internet. While some might consider this as something of a change or switch in a long and successful career, one might also think that Europe and technology actually are interlinked. In the latter view, Ingolf Pernice was just a forerunner and an early adopter of the increased importance of digitization for Europe and European law. In fact, the European project has always been about technologies and to be more precise, about the value-sensitive design and use of technologies. Two of the three communities forming the basis of European law had a direct relation to technology. The European Community for Coal and Steel was a supranational authority regulating industrial production and the use of coal and steel. The European Atomic Energy Community (EuroAtom) is still in existence today. It is an international organization with a broad scope of competences regarding nuclear energy production, distribution and sale. Yet, even the European Economic Community has engaged in many activities that shaped innovation, development, use, and sale of technology in Europe. In that view, the recent activities of the EU concerning digital technologies are rather an extension of activities than something genuinely new. The theme of integration through law has become a well-known concept in European Studies. Maybe, the process of European integration has always been about integration in the face of technological change. One of the latest developments in that regard are the developments regarding artificial intelligence. There have been many developments recently and 10 April 2018 might go down as one of the most important dates in recent history. On that date, the Declaration on Cooperation in Artificial Intelligence[1] was signed (European Commission, 2018).

During the European Union's second Digital Day in Brussels, this informal agreement was signed by 25 states including the United Kingdom and Norway. The signatories of the declaration believe that the development of AI will have a great impact on their future. AI applications are already ubiquitous in daily life. Think about the assistant on your mobile phone and ever smarter robots (BostonDynamics, 2017). The discussions about lethal autonomous weapons systems remind us that AI can also be a question of life and death. In the context of the rising importance of AI

[1] http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=50951.

and the increased willingness to influence its development (Gasser & Almeida, 2017) also on the highest political levels (Thompson, 2018), the Declaration represents a new and unique approach.

At first sight, this document seems to be quite unspectacular: on no more than three pages, it lists three general areas of cooperation – AI research, its economic impacts and social issues – and 14 more specific measures. What is special is the declaration's specific integrative approach. Unlike discussions about AI on the international plane, the declaration aims to integrate countries, research and development and policy areas.

The declaration is a collaboration of EU member states including the United Kingdom which is about to leave the Union, and Norway, which is not a member. They agree to form a "comprehensive and integrated European approach on AI".

In the current strategic debate about AI on the international plane, one usually finds positions that emphasize competition rather than integration. The Russian president Vladimir Putin famously stated at the Russian Children on Knowledge day that "whoever becomes the leader in this sphere will rule the world and it would not be desirable that this monopoly be concentrated in someone's hands" (Russia Insight, 2017). China has published its strategy to become the leading nation by 2030 (Mozur, 2017). The UK's Prime Minister Theresa May stated at the World Economic Forum that she was "establishing the UK as a world leader in Artificial Intelligence" (May, 2018).

To some these views of states bear some resemblance to the arms race of the cold war when states struggled for technological superiority (Stavridis, 2016; Straub, 2018a, 2018b). Yet, the Declaration resembles more the community of coal and steel than a nuclear arms race. The first Digital Day in 2017 marked the 60th anniversary of the Treaties of Rome, which were built on the European Coal and Steel Community. Speeches held at the event often referred to digital technology as having the potential for integrative effects like coal and steel for Europe after the second world war (European Commission, 2017). European countries combined their coal and steel industries and created a supranational authority with own competences to govern this area. This was a key factor to establish mutual trust between states. While the empowerment of states through AI is often compared to nuclear technology, coal and steel might prove to be a better metaphor: Coal is used to produce steel like data is used for the training in many AI technologies. Like AI, steel can be the basis of artefacts having many purposes. Steel can be turned into swords and ploughshares. AI can be the basis for nursing robots and automated lethal weapon systems. So, it might be better not only to share the knowledge about AI technologies, but to work together in exploring, designing and using them.

The second area of integration is the integration of research. This has economic

and scientific aspects. The signatory states agree to establish new digital innovation hubs, but also to reinforce existing research centers on AI and support their pan-European dimension. Therefore, the research should be organised in a decentralised and interconnected way which might one day even include states outside Europe. One of those institutions could be the envisaged French-German centre for AI, which is also part of the German coalition agreement between the governing parties. Contrast this with the more centralist plans of the Chinese government to spend 2.1 billion US $ to build a technology park covering 54.87 hectares in China's capital Beijing (Yamei, 2018). In a more centralist structure, collaboration is of course possible (Burchardt, 2018). In an integrated rather than federalist structure, it is a necessity. Research, development and innovation funding is also part of the declaration. In his speech at the Sorbonne, the French President Emmanuel Macron went as far as calling for a European agency for disruptive innovation (Macron, 2017). The only technology he mentioned in that context was artificial intelligence. Yet, an integrative approach does also deal with knowledge distribution: The AI resulting from this research has to be made available to different parts of society such as public administration and companies with less AI capabilities.

The third level of integration relates to policy areas. According to the theory of functional integration, integration of one policy area spills over into the next. Economic collaboration could be a first step for states to work together in other areas. The first three areas mentioned in the declaration can be compared to the three big areas of European integration: The Community of Coal and Steel integrated resources and technology, this spilled over to the European Economic Community integrating the several national markets in Europe. The third step was an increasing political and social integration resulting in the European Union.

What is special about the declaration is that it has an integrative view on technology, economy and society. AI technologies are not to be viewed separately from other areas but as a whole. This integrated view does not give precedence to innovation, economic benefits, governance, design or accountability. It tries to deal with all aspects at the same time. Such an integrated approach is mindful of the embeddedness of technology in society. The focus of development of important and relevant technologies must be on their impacts from the start of the design process. It is a process of constant learning. The level of integration envisaged in the declaration is, however, nuanced: the countries agreed to exchange views on ethical and legal frameworks. That leaves some leeway for each respective country. They, however, also agreed that humans must remain in the centre of development, deployment and decision making of AI. These two aspects mirror the idea of unity in diversity in Europe. Convergent ethical and legal frameworks and human-centricity could become

part of the nucleus of a particular European stance towards the future of AI, which could turn out to be an important part of our future.

At the moment, there are many initiatives aiming to guide the development of AI in a sustainable and ethically responsible way. What makes the declaration special is that it represents also an idea how to get there. It is a translation and adaption of the European idea of integration. Whether 10 April 2018 will become a date mentioned in future history books – or their functional digital equivalents – is hard to predict. It is my hope that looking back, we will have forgotten Zuckerberg's tie and remember this day as part of a series of events that helped to ensure a responsible and sustainable development of AI for the common good.

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