

Regulation and Policy in the Algorithmic Society

Apostolos K. Vorras, LL.M. mult., Ph.D. cand., Department of Information and Communication Systems Engineering, University of the Aegean;
Prof. Dr. Lilian Mitrou, Department of Information and Communication Systems Engineering, University of the Aegean

Modern society has been profoundly affected by the emergence of new technologies, such as artificial intelligence (AI), machine learning, big data analytics, distributed ledger technology and the Internet of Things (IoT). The enormous amount of available digital information and the low-cost computing power create tremendous opportunities and disrupt traditional business models. The research on AI and algorithms has shifted from being driven by academic curiosity to being driven by economic and social demands. What is making Artificial Intelligence the major trigger for the “Fourth Industrial Revolution” is not only, though primarily, the ever more sophisticated technological potential and the availability and processability of vast amount of data but also the fact that AI is no more “the domain of a few nerdy specialists working mainly in academia, financial services or large marketing departments”. developments can be found across the full range of business activities. Operations, decisions and choices are increasingly delegated to algorithms, which may advise, if not decide, about how data should be interpreted. On the other side, smart systems, without human intervention or control, are able to interact and conduct dialogues with users, respond to their needs and requests and make suggestions to them⁴. It is undisputable that we are moving towards an “Algorithmic Society”, a society organized around social and economic decision-making, supported or even solely based on algorithms, robots, and AI agents. At the same time, we are faced with legal challenges and ethical dilemmas with regard to the impact of the rapid development and the capability of current legal framework to adapt accordingly. In the wake of these sweeping technological advancements, regulators are requested to respond to the following core issue: how to maintain a balance between fostering innovation, protecting individuals’ rights, and addressing any potential unintended consequences. This paper aims at discussing the interaction between innovation and regulation. Based on the case of the General Data Protection Regulation, we are dealing with the question, if an AI – specific or AI-oriented regulatory framework is required to face adequately the issues raised by the emergence of AI as an everyday reality and the increase of its applications. While presenting the main trends concerning the regulatory approach, we are addressing some core obstacles, such as the “pacing issue” or the “knowledge” (and predictability) gap between the ambitions of the regulators and the difficulties of the AI as regulation object.