

Preface

Digital technologies are creating a new model of society where every human activity or business (commerce, finance, insurance, transport, etc.), and every public function or service (public administration, health care, education, etc.), is highly dependent on technologies that process information, as well as on the production and exchange of information-based goods and services.

Artificial Intelligence is reshaping our lives, our social interactions and activities, and, in some ways, our human nature. This revolution creates new risks and opportunities for individuals and for the whole of society, and consequently new demands for protection of fundamental legal values and rights. Besides, it impacts the work of lawyers and legal professionals – itself increasingly dependent on information and communications technologies (ICTs), and among them in particular, those based on Artificial Intelligence.

Thus, the relationship between digital technologies and the law is twofold: on the one hand, it includes digital law, concerned with the legal regulation of technologies; on the other hand, it includes legal informatics, that is the study of how to use digital technologies for the law.

Indeed, all lawyers should be interested in digital technologies. Lawyers should not view them as mere “black boxes” – processing information in input and producing information as output – to be used for practical purposes. Rather, they should understand their basic concepts and principles, with a clear grasp of their internal working.

On the one hand, the knowledge of technologies is an enabling precondition for interpreting and applying many legal norms that directly or indirectly address the ways in which technologies are designed and used. Only by knowing the basics can lawyers gain awareness of the opportunities and risks involved in their use and of their impact on legal values. This awareness is needed since the role of lawyers is not limited to addressing litigation in technological contexts. Rather, they should provide all those involved in the design, use, deployment and regulation of technologies with an account of how legal values are affected, and contribute to technical and organisational solutions that sustain legal values or at least reduce the risk of their violation.

On the other hand, the knowledge of principles of computer science is needed to understand the opportunities to use digital technologies in legal activities and is the pre-

condition not only for making the best use of existing tools but also for contributing effectively to the development of future devices, technologies and tools, including artificial intelligence systems, that can support legal activities and processes.

Following this perspective, the book is organised as follows. The first section, “Law and the Information Society” sets the overall scene, providing some fundamental concepts and describing several basic trends and phenomena that are relevant to the analysis of the legal and social aspects of the Information Society.

Then, the core part of the book is organised in two parts, dealing respectively with Legal Informatics and Digital Law. In the first part (Legal Informatics), the basic concepts of computer science (hardware and software, data, internet, artificial intelligence) are presented, as their main implications for the legal domain and the activities of legal professionals. In the second part (Digital Law), the main legal topics in digital law are presented (data protection, intellectual property, platforms law, liability and automation), together with an overview of the main regulatory initiatives, focusing in particular on EU law (GDPR, AI Act, DMA, DSA).

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