

Abstract

This thesis focuses on the legal regulation of selected aspects of the personal data protection at the European level. Fuelled by the technological progress, this area of legal regulation is becoming increasingly important, as the usage of personal data can be source of both innovation and economic progress, but it also has the potential to negatively impact individuals' rights ("chilling effect"). The thesis analyses the usage of *big data* and automated individual decision making; both phenomena are assessed through principles contained in GDPR. The aim of the thesis is to, as far as these two phenomena are concerned, evaluate functionality and perspectives of the European regulation.

The thesis is, apart from the introduction and the conclusion, divided into three chapters. The first part briefly introduces the concept of the right to the protection of personal data and the fundamental legal framework of the European regulation. This chapter is followed by a chapter focused on the big data, in which, after a necessary technical introduction is made, current practices of data controllers are contrasted with corresponding principles of data protection regulation. Particular attention is also paid to the pitfalls of anonymization. At the end of this chapter, it is concluded that all relevant principles of data protection should be applied when *big data* are used, even though it may not be obvious or easy to achieve compliance.

The following chapter then focuses on a related topic of automated individual decision making. After the technical introduction of different methods of algorithmic decision making is made, an analysis of compliance with the principles of accuracy and transparency follows. The latter mentioned principle relates closely to the question of the existence and nature of the right to explanation. Concerning this right, it was concluded that it is not incorporated in the current legislation, but its implementation would be a positive step forwards for the rights of data subjects. For this reason, it was, *de lege ferenda*, recommended to move the said right between legally binding GDPR articles, as it is now incorporated only in the form of legally not binding recital. Referring to the technical difficulties associated with explaining an automated decision (black box), it was further recommended to combine a contrafactual explanation with a general explanation of the model's operation.

In the final chapter, the overall contribution of the new legal regulation was assessed, and it was concluded that GDPR is the right and necessary step forward and that basic principles contained in said regulation appear to be truly futureproof, as was intended.