

Development of disruptive IT within the frame of Czech legislation

Abstract

New information technologies, such as biometric technologies, distributed ledger technology, cloud computing, the internet of things and virtual reality, are increasingly transforming our way of live. Technologies that radically transform our society are referred to as “disruptive technologies“. This thesis focuses on the main application of disruptive information technologies, which is the use of artificial intelligence.

The first part of thesis presents the issue, explains the basic concepts and differences between augmented intelligence, special artificial intelligence and general autonomous artificial intelligence. Furthermore, it summarizes the Czech legislation reflecting current technological developments. The summary of the most important aspects of the current legislation is a prerequisite to identify its limits and shortcomings in order to analyze the challenges that need to be taken into account when proposing appropriate future legislation.

The aim of the thesis is to identify and present the main challenges that the development of disruptive information technologies brings to the Czech legislation. These challenges include the ethical and philosophical grounding of disruptive information technology, which determines what approach to disruptive information technology is to be adopted. Another challenge is a choice of the appropriate form of the legal status of artificial intelligence and a determination of limits in the decision making of artificial intelligence. Hence, the second section of the thesis discusses advantages and disadvantages of different approaches to these challenges and presents possible ways of regulation. The thesis thus provides the expert public with an analysis of the challenges the current legislation faces as a result of the development of disruptive information technologies.

Key words: disruptive technology, artificial intelligence, Czech law