

The emerging technical development is undoubtedly affecting criminal proceedings in a significant manner. It can be observed at the stage of gathering evidence, e.g. taking into consideration surveillance measures or gathering evidence, but also during court hearings. Recently, the possibility of using even more technologically advanced systems and mechanisms in criminal proceedings gained interest among legal scholars and international law organisations, such as European Union (EU). The means of potential use of AI systems differ depending on the stage of the proceedings. During the pre-trial phase it is connected for instance with the policing and prevention or collecting evidence based on AI, at the trial stage it can be connected with streamlining the course of the proceedings by means of speech recognition, evidence translation or even the decision making process. Including AI systems in criminal proceedings can be undoubtedly beneficial, it can limit the costs, necessary efforts, duration of the trial and result in unification of the application of the law, but, at the same time, raises many doubts from the human rights perspective and its protection during the course of criminal proceedings.

One of the rights prone to infringement caused by potential AI use, is right of defence. The key element of the effective and real defence is the right to active participation in the trial, which can be executed *i.a.* by filing the proper motions, taking part in evidentiary proceedings and, also, filing means of challenge, e.g. appeals and grievances. An integral part of the active participation is, moreover, the right to notification and information about the procedural measures taken against the defendant or a suspect. However, the use of AI, puts into question, to what extent can the right to information be really executed. If tracking the algorithm of AI either demands the specialist knowledge, not accessible to the average citizen, or is even impossible, can the purposes of the right to information really be met and, as a result, can the defendant effectively challenge the procedural actions on which his potential conviction could be based? Moreover, it has to be noted, that is highly possible that the judge in most cases will also not possess the broad technological knowledge. Can they, therefore, assess the eventual malfunction, bias in the system or the disproportionality of the measure and in this regard refer to the appeal?

The issue definitely gains in importance as the future with AI systems included becomes more and more real. In many states, AI systems have already been introduced into the criminal process. However, the practice of applying artificial intelligence systems has shown that these systems carry a relatively high risk of error, feedback loops that replicate these errors, discriminatory tendencies, and go beyond the limits of proportionality. They may prove unsuitable for their intended purposes or target groups, and carry significant risks in terms of the situation of defendants, while posing substantial problems in terms of their transparency. Thus, it is necessary to provide the defence with directly enforceable information rights on how the systems operate. Within the EU, the Artificial Intelligence Act (AI Act) was supposed to be the answer to these problems. However, as a preliminary analysis of the AI Act shows, the solutions it provides still raise a number of doubts about the effective protection of the right of defence in proceedings.

The project aims to construct an optimal model for the AI use in criminal proceedings. The research objective is to determine in what ways can Artificial Intelligence be used in proceedings, if such use can be compatible with the right of defence and how particular solutions could be implemented in legal systems to guarantee their proportionality. Answering the question “how” will also lead to creating some common standards applicable on the EU level. In the current state of regulation the use of systems based on AI in criminal proceedings appears to be more of a threat than a benefit to the right of defence. The research, therefore, aims to propose frames for legal provisions that will minimize existing risks, allow to benefit from the systems use to the fullest extent and contribute to optimizing using the AI in criminal proceedings. For this purpose, an analysis will be carried out to determine standards of the right to defence in the light of new technological developments, characteristics of AI that may pose a challenge to the respect of these standards, examples of applications of AI for the purposes of criminal proceedings, and identify existing regulation, both at the EU level and at the level of individual states (Italy, Germany, the United Kingdom, Poland), that is starting to emerge. The combination of the indicated elements will make it possible to indicate the answer to the fundamental research question, as well as to draw conclusions on further necessary regulatory steps for the protection of the right of defence standards.