A BLUEPRINT OF COPYRIGHT ISSUES IN AI-ASSISTED USER-GENERATED CONTENT

Background of the paper

Artificial intelligence (AI) is able to produce creations, which might meet the individual conceptual features of copyrighted works[1] and consequently obtain copyright protection (BRIDY, 2012). Besides, the AI might be used to "create" creations on the basis of input from its individual users. But for AI to be able to "create" something, it has to be "learned" to find patterns and analogies based on some other creations (incl. copyrighted works) within a predefined dataset (SOBEL, 2017, p. 45-97). From the copyright point of view, this AI-assisted UGC production model[2] represents a conundrum of complicated copyright issues. This is caused by the multiplicity of involved subjects (user, programmer of the AI, author of dataset, i.e. the underlying works, and potentially third party) and unclear legal qualification of the steps involved. In the current jurisprudence, these issues are discussed only partially or only individually (DAVIES, 2011; GINSBURG-BUDIARDJO, 2018; GUADAMUS, 2017; SCHAFER et al., 2015).

Research objective

The primary research objective is to create a concise blueprint of AI-assisted UGC production model with clearly identified acting agents, the copyright qualification of their actions and overview of key elements decisive for awarding of authorship and/or entitlement to exercise the rights to the output creation. The secondary research objective is to create a framework potentially usable for further research in the area of AI and copyright.

Methodology

In order to fulfill the research objective we carry out (i) an exploratory-descriptive analysis of potential copyright-relevant legal relationships, uses of works and entitlements to do so in case of AI-assisted UGC production model and (ii) an exploratory-normative analysis of the elements with the crucial role for determining authorship and entitlement to exercise the relevant rights (BORGHI-KARAPAPA, 2011).

International and European copyright law are used as the normative framework for discussion.

The research is based on the axiom of creative ability of AI (BODEN, 1998; BODEN 2009), i.e. that AI is regarded not only as a tool, but an active agent within the model, that is able to produce creations. In order to keep the presentation concise and coherent, the protection regimes of computer programs and databases are excluded from discussion.

Word count: 358

References

BODEN, Margaret A. Creativity and Artificial Intelligence. *Artificial Intelligence*. 1998, Vol. 103, No. 1, p. 347–356. ISSN 0004-3702.

BODEN, Margaret A. Computer Models of Creativity. AI Magazine. 2009, Vol. 30, No. 3, p. 23–34. ISSN 0738-4602.

BORGHI, Maurizio; KARAPAPA, Stavroula. Non-display uses of copyright works: Google Books and beyond. *Queen Mary Journal of Intellectual Property*. 2011, Vol. 1 No. 1, p. 21-52. ISSN 2045-9807.

BRIDY, Annemarie. Coding Creativity: Copyright and the Artificially Intelligent Author. *Stanford Technology Law Review*. 2012, roč. 5, s. 1–28. ISSN 1098-4267.

DAVIES, Colin R. An Evolutionary Step in Intellectual Property Rights − Artificial intelligence and Intellectual Property. *Computer Law and Security Review*. 2011, Vol. 27, No. 6, p. 601-619. ISSN 0267-3649.

GINSBURG, Jane C.; BUDIARDJO, Luke Ali. Authors and Machines. *SSRN* [online]. 5 August 2018. DOI 10.2139/ssrn.3233885. Available from: https://papers.ssrn.com/abstract=3233885

GUADAMUZ, Andrés. Do Androids Dream of Electric Copyright? Comparative Analysis of Originality in Artificial Intelligence Generated Works. *SSRN* [online]. 5 June 2017. Available from: https://ssrn.com/abstract=2981304

SCHAFER, Burkhard et al. A Fourth Law of Robotics? Copyright and the Law and Ethics of Machine Co-production. *Artificial Intelligence and Law*. 2015, No. 23, p. 217-240. ISSN 0924-8463.

SOBEL, Benjamin L. W. Artificial Intelligence's Fair Use Crisis. *Columbia Journal of Law and the Arts* [online]. 2017, Vol. 41, No. 1, p. 45-97. ISSN 1544-4848. Available from: https://lawandarts.org/wp-content/uploads/sites/14/2017/12/41.1_Sobel-FINAL.pdf

---

[1] E.g. in EU the threshold of originality (C-5/08 - Infopaq International; C-393/09 - Bezpečnostní softwarová asociace; C-604/10 - Football Dataco and Others; C-403/08 - Football Association Premier League and Others; C-145/10 - Painer).

[2] *AI-assisted UGC production model* represents situation where the final creation is made with the assistance of AI based on the users' inputs (e.g. the *Humtap* platform available from: https://www.humtap.com/).