Prof. Dr. Jan Krämer

**Lehrstuhl für Wirtschaftsinformatik
mit Schwerpunkt Internet- und
Telekommunikationswirtschaft**

UNIVERSITÄT
PASSAU

Wirtschaftswissenschaftliche Fakultät

Generative AI and Challenges for Copyrights [Working Title]

Supervisor: Chayanin Wipusanawan <chayanin.wipusanawan@uni-passau.de>
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Motivation:

Based on limited prompts given by users, 'generative artificial intelligence (AI)' tools can create outputs such as texts, illustrations, and music. These tools have been developed or 'trained' by using a large body of existing works. Given that these types of works are 'creative work' protected by copyright laws, the rise of generative AIs raises questions about how the creation and usage of these tools stand under current copyright regimes and whether the existing laws can appropriately govern them.

First, a question has been raised whether the outputs generated by AI tools are copyrightable, and if so, who owns the copyright. Most jurisdictions currently do not accept the notion of an 'AI author', which is taken to mean that AI-generated works are not copyrightable (Craig, 2022). Alternative legal interpretations may put the copyright in the hands of the prompters (considering the AI as mere tools) or the creator of the AI. Additionally, it remains a normative question whether AI-generated works *should* be copyrightable, considering the economic rationale behind intellectual property rights to provide incentives to costly production of creative works.

Second, given that the majority of 'training data' behind the creation of these AI tools are copyrighted materials, some have alleged that the copyrights are violated in the process, either when the works are copied en masse into the training datasets, or when the machine learning systems 'learn' from the datasets (Lemley & Casey, 2020). Questions remain whether the process of training the AI falls under the acceptable use of copyrighted materials under current laws (for example under 'fair use' in the US) and whether the laws should be changed to allow or prohibit the use of copyrighted materials in such a way.

Goal:

The goal of this thesis project is to provide an overview of the debates related to copyrights, machine learning, and generative AI. The thesis should include an overview of where the current copyright laws stand regarding generative AI tools (in selected jurisdictions) and the relevant economic effects that can guide policymakers in designing appropriate copyright policies in the presence of these AI tools.

References and Related Literature:

Craig, C. J. (2022). The AI-copyright challenge: Tech-neutrality, authorship, and the public interest. In *Research handbook on intellectual property and artificial intelligence* (pp. 134–155). Edward Elgar Publishing.

Lemley, M.A. (2023). How generative AI turns copyright law on its head. Working Paper. https://papers.ssrn.com/abstract=4517702.

Lemley, M. A., & Casey, B. (2020). Fair learning. *Texas Law Review*, *99*(4), 743–786.