WIPO Conversation on Intellectual Property (IP) and Artificial Intelligence (AI)

In preparation of the Second Session of the WIPO Conversation on IP and Artificial Intelligence AI the WIPO Secretariat issued a "DRAFT ISSUES PAPER ON INTELLECTUAL PROPERTY POLICY AND ARTIFICIAL INTELLIGENCE" and invited the interested parties to submit comments. In section 3 of the draft issues paper it is stated that comments are requested on the correct identification of issues and if there are any missing issues in order to formulate a shared understanding of the main questions to be discussed.

The Patentanwaltskammer welcomes the WIPO initiative to lead discussions on the impact of artificial intelligence (AI) technologies on IP rights on the global level. AI is considered as one of the most relevant areas of technology and innovation with probably the highest rate of change among all technical fields and with deep impact on a large plurality of existing technologies.

It has the potential to redefine the innovation processes in a way that even the need for a new legal framework for these new processes cannot be excluded from today's perspective.

It seems to us that the questions presented in sections 6 to 27 of the draft issues paper cover all relevant aspects of IP protection of AI quite completely. There may be individual further questions that arise out of the discussions. However, it seems to us that discussions based on the draft issues paper will reveal all relevant issues.

Our analysis of the draft issues paper has only revealed two aspects that may need further clarification.

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I. Inventions autonomously generated by AI

The draft issues paper expresses, for example, in section 6:

"However, it would now seem clear that inventions can be autonomously generated by AI ..."

It expresses in Section 11:

"Does the advent of inventions autonomously generated by AI applications call for a re-assessment of the relevance of the patent incentive to AI-generated inventions."

It expresses in Section 12:

"AI applications are capable of producing literary and artistic works autonomously."

These sections 6, 11 and 12 seem to indicate that autonomous AI inventions are already here or just around the corner.

We observe that the draft issues paper does not give a definition of "inventions autonomously generated by AI applications".

We interpret this expression as describing innovation that is initiated or triggered as well as designed by the machine without any human interaction. This means at a minimum, that the AI machine identifies both, the problem or malfunction and the features of the solution that constitutes the invention autonomously. It might further mean that this autonomously inventive AI machine is created without any human interaction or control.

Such autonomous inventive activity seems to be limited to so-called strong AI (also called full AI or artificial general intelligence AGI). Technical experts for artificial intelligence have stated repeatedly that strong AI or AGI is still far, decades if not centuries, away.

This indicates that the questions in the draft issues paper are related to current technical practice on the one hand and to technical models that are quite remote and far in the future, on the other. The current practice is the human use of AI machines, in particular machine learning, for identifying the best mode of solving a specific problem. In this context, AI seems to serve as a technical tool for the human inventor, similar to an analyzing apparatus, measuring means or visualization devices. Such technical tools assist the human inventor in finding the features of the invention.

In earlier discussions, questions were answered quite differently in case of AI-assisted works and works autonomously generated by AI. The Resolution of AIPPI on the study question "Copyright in artificially generated works"[1] states:

> *"AI generated works should only be eligible for protection by Copyright if there is human intervention in the creation of the work and provided that the other conditions for protection are met. AI generated works should not be protected by Copyright without human intervention."*

We expect that a similar distinction will be made for AI-assisted and AI-generated inventions.

Based on these considerations, we suggest

a) to include a definition of autonomous AI inventions in contrast to AI-assisted inventions in the draft issues paper, and

b) to distinguish clearly between questions directed to **AI-assisted inventions** from questions directed to **autonomous AI inventions**.

II.   Difference between AI-related inventions and other computer-assisted inventions

Section 6 of the draft issues paper starts with the following sentences:

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[1] https://aippi.org/wp-content/uploads/2019/10/Resolution_Copyright_in_artificially_generated_works_English1.pdf

"In most cases, AI is a tool that assists inventors in the invention process or constitutes a feature of an invention. In these respects, AI does not differ radically from other computer-assisted inventions."

We note that there is a significant difference between the way that conventional software in computer assisted inventions work and the way that artificial intelligence systems work. Conventional software generally consists of invariable code written by human programmers. AI systems generally adapt by means of machine learning processes based on the data fed to the AI systems.

The publication „When Computers Decide: Recommendations on Machine-Learned Automated Decision Making" 2018, Informatics Europe & EUACM[2] explains on p. 6:

"From a technical perspective, machine learning systems, in contrast to explicitly written programs, are "trained," by exposing them to a large number of examples and rewarding them for drawing appropriate distinctions and making correct decisions, much in the same way as human beings learn. This distinction, while it may seem esoteric, has far-reaching consequences for our ability to understand the behaviour of these systems and for our confidence that they will behave in an appropriate manner."

We suggest deleting the sentence *"In these respects, AI does not differ radically from other computer-assisted inventions."* as it may be misinterpreted and is not essential for the completeness of the draft issues paper.

III.   Copyright for computer programs

It is known that AI applications are capable of producing not only literary and artistic works but also computer programs which are not mentioned with regard to issue 6 of the draft issues paper. The Patentanwaltskammer recommends to include computer programs as works which are protectable under copyright in the draft issues paper.

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[2] https://www.informatics-europe.org/publications.html

The Patentanwaltskammer will be pleased to participate in any further consultation on this topic and will be available in case of any questions.

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