

## Artificial Intelligence and Copyright

The next digital revolution has already begun. In the course of the "Next Rembrandt" project, the Dutch master was brought back to life and, with the help of artificial intelligence, an image was created that has all the characteristics of a Rembrandt painting. Google's algorithm "Deep Dream" taught "computers to dream" by creating "dream images" never seen before with a system of neural networks – developed to recognize faces and animals in photographs.

Artificial intelligence and "art" is a vivid, but narrow aspect. On the contrary, artificial intelligence will find its way into all areas of life and become an indispensable part of everyday life. Tasks that people need their intellect to solve are to be mastered with the help of computers, especially since algorithms can derive independent decisions from the experience gained. For researchers and developers, this offers an immeasurable field of activity and incentive for further pioneering work.

From the point of view of the developer of "artificial intelligence", it is essential that his "intellectual achievements" or his development work enjoy appropriate legal protection that effectively protects him from imitators ("free riders").

The methods of artificial intelligence are mathematical solutions that are implemented by algorithms as part of software. Computer programs are copyrighted in Austria according to §§ 40a ff UrhG as "product". No formal act such as a registration (e.g. in patent law) or a so-called copyright notice "©" is required for the creation of the author's rights. Rather, the protection of the work already arises at the time of programming. Therefore, conflicts are foreseeable if another developer claims the authorship of a certain program. It is therefore advisable to date all development-related documents used for programming and to keep them for evidence purposes. In addition, private companies also offer registration options for computer programs. However, this registration has no "official character" but rather serves the preservation of evidence.

Furthermore, precautions must also be taken in the event that several programmers or an entire team are working on a particular program. Here, contractual regulations are indispensable in advance in order to avoid later disputes, especially with regard to the exploitation of the project. The computer program is internationally protected in the member states of the WIPO Copyright Convention. Under certain conditions, copyright protection applies immediately in all signatory countries. The "ideas" on which a computer program is based cannot be protected by copyright, but they can also be protected in other ways.

Computer programs, on the other hand, are only accessible to patent protection to a limited extent, since software "as such" (i.e. as pure source code or without reference to the content of a technical invention) is even expressly excluded from patent protection in Austria. If the software makes a contribution to solving a concrete technical problem by technical means, such as the control of an autonomous vehicle, the registration of a software patent could be considered. In any case, patent rights must be registered (in contrast to copyrights) and are not internationally "automatically" protected by agreements, but must be internationalized accordingly.

Ultimately, it is questionable whether and to what extent results created by artificial intelligence (e.g. images) can be protected by copyright. To return here to the "Next Rembrandt" project mentioned at the beginning: Does the software developer have copyrights to a picture painted with the help of artificial intelligence? This can probably be denied from the point of view of today's legal status: According to the law, the author is the physical person who created a work. Machine-produced works or work results are unprotectable. Copyright protection can only be considered if a person intervenes in the creative process in a controlling way.



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