

**Abstract****Copyright Challenges Facing Artificial Intelligence**

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There have been a lot of advances made in the field of artificial intelligence ("AI") both in Korea and in the Western world. AI has similar impacts on copyright as the printing technology which led to the birth of the copyright law system. Since AI creates contents in a totally different way than human authors do, whether we could acknowledge any originality of those contents created by AI. Even if there is any originality in the AI created contents, there are still debates whether to regard the AI as an author under the current copyright laws. From a utilitarian perspective providing an economic incentive to furthering AI creativity, a substantial amount of commentators agree that the copyright should be granted to either AI owner or user rather than to AI itself.

During the course of contents creation, AI rely on enormous amount of big data or copyright works, which could lead to copyright infringement unless the use is either licensed by copyright owners or regarded as fair use. It would be extremely difficult to tell whether big data analysis by AIs could be allowed as fair use or not. As is the case with the authorship, it is also difficult to tell who is liable for copyright infringement which took place during the course of AI activities. In case of fair use, it will be increasingly difficult to balance the interests of copyright owners and AI users.

Since AI relies on enormous amount of data, Google, Facebook, Amazon, and Alibaba have a great advantage in providing their service based on big data analysis. In the age of AI and big data, accordingly, there will be great demands for protecting big data. Big data analysis depends on lots of data, which may require a thorough review of Feist decision, a hot news doctrine, a sui generis database protection and other relevant IP laws. Hot news doctrine was adopted in the Unfair Competition Prevention Act of Korea several years

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ago. It is interesting to see how the copyright and unfair competition laws evolve and respond to big data based AI in the near future.

### Keywords

Artificial Intelligence, Big Data, Robots, Originality, Reproduction, Author, Fair use

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