

*Play First versus Pay First:
Exploring Cumulative Innovation in Patent & Copyright Law*

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Patent and copyright law differ in the way they deal with cumulative innovation – the situation when one party invents or creates a new work and another party develops an improvement for it. While copyright law offers little protection to follow-on innovators, patent law allocates some property rights to the follow-on innovator.

In patent law, an innovator may receive a patent on an improvement of another's invention. However, such improvement patent does not prevent the follow-on innovation from infringing the original patent. Rather, the follow-on innovator must receive a license from the original innovator if she wishes to market the improved invention. Also, if the original innovator wants to use the improvement patent, he has to license this patent from the improver. By contrast, copyright law entitles the original author to control derivative works. In order to build upon a copyrighted work, a follow-on creator must ask the original creator for permission. Unlike patent law, copyright law enables original creators to capture most of the value of improvement made by follow-on creators. In patent law, a follow-on innovator may innovate and then pay. We refer to this as patent law's "play first" rule for improvements. In copyright law, she must pay first and may then innovate. We refer to this as copyright law's "pay first" rule for improvements.

The justifications and implications of this difference are ambiguous. Some authors have argued that the copyright regime leads to decreased incentives for follow-on innovation. On the other hand, while the patent regime may increase follow-on innovation in the first place, it may create hold-up situations once licensing negotiations start. Prospect theory argues for assigning strong property rights to the original innovator, but cannot really explain the different treatment in patent versus copyright law.

This project is the first to shed some empirical light on this difference between patent and copyright law. In an experimental setting, two creators engage in creativity tasks and may build upon the other's solution. By testing play-first versus pay-first regimes, we measure the impact on cumulative innovation in both regimes.