

3D Printing, Intellectual Property and Innovation

Insights from Law and Technology

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 Wolters Kluwer

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3D printing (or, more correctly, additive manufacturing) is the general term for those software-driven technologies that create physical objects by successive layering of materials. Due to recent advances in the quality of objects produced and to lower processing costs, the increasing dispersion and availability of these technologies have major implications not only for manufacturers and distributors but also for users and consumers, raising unprecedented challenges for intellectual property protection and enforcement. This is the first and only book to discuss 3D printing technology from a multidisciplinary perspective that encompasses law, economics, engineering, technology, and policy. Originating in a collaborative study spearheaded by the Hanken School of Economics, the Aalto University and the University of Helsinki in Finland and engaging an international consortium of legal, design and production engineering experts, with substantial contributions from industrial partners, the book fully exposes and examines the fundamental questions related to the nexus of intellectual property law, emerging technologies, 3D printing, business innovation, and policy issues.

Twenty-five legal, technical, and business experts contribute sixteen peer-reviewed chapters, each focusing on a specific area, that collectively evaluate the tensions created by 3D printing technology in the context of the global economy. The topics covered include:

- current and future business models for 3D printing applications;
- intellectual property rights in 3D printing;
- essential patents and technical standards in additive manufacturing;
- patent and bioprinting;
- private use and 3D printing;
- copyright licences on the user-generated content (UGC) in 3D printing;
- copyright implications of 3D scanning; and
- non-traditional trademark infringement in the 3D printing context.

Specific industrial applications – including aeronautics, automotive industries, construction equipment, toy and jewellery making, medical devices, tissue engineering, and regenerative medicine – are all touched upon in the course of analyses. In a legal context, the central focus is on the technology's implications for US and European intellectual property law, anchored in a comparison of relevant laws and cases in several legal systems.

This work is a matchless resource for patent, copyright, and trademark attorneys and other corporate counsel, innovation economists, industrial designers and engineers, and academics and policymakers concerned with this complex topic.

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2017, 442pp, Hardback
ISBN: 978-90-411-8382-8
Price: € 128.00