Making and Unmaking Intellectual Property

Creative Production in Legal and Cultural Perspective

Edited by
WOODMANSEE Mario BIAGIOLI JASZI
BIAGIOLI Peter JASZI WOODMANSEE
JASZI Martha WOODMANSEE BIAGIOLI

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Edited by
MARIO BIAGIOLI, PETER JASZI, and
MARTHA WOODMANSEE

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MARIO BIAGIOLI is professor of law and science and technology studies at the University of California at Davis.
PETER JASZI is professor of law at Washington College of Law, American University.
MARTHA WOODMANSEE is professor of English and law at Case Western Reserve University.

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INTRODUCTION

Scenarios

Once an area of the law populated only by a technical subculture of attorneys and scholars, intellectual property (IP) has become a focus of vital concern and remarkably intense inquiry across an expanding range of disciplines and constituencies. Along with the "information society," the "knowledge economy," and "innovation," IP has also become a household term. The World Intellectual Property Organization (WIPO) would like it to enter the classroom as well—the sooner the better. To that end, WIPO has recently published a colorful comic book (featuring games like "Spot the Infringement") to instill respect for copyright in children's minds—a concept that might already be lost on their older, file-sharing siblings.[1] And as IP tries to enlist the preadult, it is also expanding into the silicon world and the indefinitely large realm of virtuality. Those who build alternative lives and design virtual clothing and artifacts in Web-based games like Second Life may need sophisticated counsel to negotiate the legal boundaries between real and second life, between their real-world copyrights and trademarks in their virtual designs, their "virtual property rights," and the Second Life Patent and Trademark Office.[2]

In more mundane, carbon-based environments the ubiquitous reliance on IP across industries and the corporate world is generating a steady stream of new legal, technical, and cultural questions. Legal scholars, courts, and lawmakers engage questions over the expansion of criteria of patentability (genetic sequences, business models, etc.), copyrightability (software, databases, etc.), the length of copyright protection (the Sonny Bono Copyright Term Extension Act), and the exceptions to those rights (the research exception in patent, fair use in copyright). At the same time, concerns with the escalation and justifications of IP and with the conceptual difficulties posed by key legal distinctions such as between tangible and intangible property, idea and expression, and invention and discovery as well as the difficulties underlying other fundamental notions of IP law (originality, novelty, utility, authorship, inventorship, etc.) are fueling debates that exceed the bounds of policy and legal discourse. For example, the way copyright, patent, and trademark law codifies cultural and knowledge production (as well as the history of such legal codifications) are attracting ongoing and mounting attention from disciplines like anthropology, science studies, history, communication and cyberculture studies, political science, literary and postcolonial studies, the arts, and education.

Informed by critiques of the figure of the author in copyright law that initiated, in the mid-1980s, the historical and theoretical study of IP outside the policy-oriented discourse of legal practitioners, much of the current literature continues to operate in the critical register.[3] The early critical scholarship was the work of literary theorists and historians, while other disciplines participated in the subsequent debates generated by the advent of the 'information society," which cast knowledge in terms of information, texts, and media products rather than material objects. The effect was to place copyright (and the contentious history of its key concepts) at the center of the critical discourse about IP.[4] Increasingly, however, other branches of IP also have been subjected to scrutiny.

In that vein, current scholarship (produced both within and without the legal profession) is concerned not only with the power of the dominant metaphors and tropes of IP but also with the gaps between the law's normative description of the production of culture and knowledge and the evidence brought up by empirical studies of such processes. That evidence tends to highlight the role of collaboration and borrowing at the expense of individual authorial agency as well as the cultural specificity of IP—a specificity that is at odds with other notions of property, object, cultural production, and the relation or kinship between people and things from other parts of the world.[5] As part and parcel of this scholarly trend, the history of IP (now a specialty with its own professional organization) has reconstructed much of the law's

detailed documentary trail, showing the discontinuities and sociopolitical contingencies in its genealogy and the frequent whiggishness of lawyers' comforting narratives about the history of their doctrines.[6]

Scholarly critiques of intellectual property, however, have not prevented it from becoming central to the university's research policies and practices. (Its terms and concepts also have crept into the classroom itself, where plagiarism is often construed in overly broad terms and then incorrectly conflated with copyright violation.)[7] Once presented as an ivory tower independent from the world of commerce—an image it really never matched—the university now collaborates more frequently and intensively with public and private sponsors, especially since the Bayh-Dole Act and related legislation.[8] The university is also slowly but steadily reconceptualizing its faculty as providers of IP—from patentable research down to copyrightable course syllabi to be used in distance learning programs. These developments have triggered debates over the pros and cons of patenting publicly funded scientific university research; the relation between academia and the private high-tech start-up companies developed by its faculty; the so-called anticommons produced by the patenting of scientific research and research techniques; the IP-related constraints imposed by private funding on faculty publications and access to their research; and questions about who owns internally funded academic work and how it should be archived or made public.[9] Many decry the privatization of academic work, fearing that academic research will turn into "work for hire," literally or figuratively. One specific response to this trend has been the rise of the "open journal" movement, with its insistence on making scholarly results in a wide range of disciplines broadly available using electronic tools.[10]

On the other hand, many academic practitioners of the technosciences welcome the opportunities provided by the so-called privatization of knowledge and see no problem in keeping one foot in the world of "open" academic science while planting the other foot in patent-based start-up companies often financed by venture capital, often with the encouragement of university technology transfer offices.[11] As part of this trend, the distinction between industry and academia (or between research and development or pure and applied science) has been further blurred, especially in the biotech area, with many scientists finding the new high-tech industrial environments more open and amenable to intellectual risk taking than peer-review-bound academia and its numerous committees.[12] Instead of casting the privatization of scientific knowledge as "impure," some have gone as far as to present its epitome—emergent biotech industry—as "countercultural."[13]

Opposition to and transgressions of IP are almost as visible and varied as its simultaneously global and microscopic presence. From the stereotypical

"Asian pirates" burning away cheap DVDs (often with subtitles that transgress grammar as much as the recordings may infringe IP)[14] we have moved to file-swapping high-schoolers, scientists who nonchalantly ignore the restriction on patented research tools, and artists and musicians who take IP as one of their subjects, whether by turning infringement into an art form (Negativland), grounding creative practice on the exploitation of recognized IP exceptions like fair use (Girl Talk), or, still less defiantly, developing initiatives to place art directly in the public domain (Free Art & Technology, Graffiti Research Lab).[15] While the figure of the pirate has always been romanticized in some quarters even as it is vilified by the defenders of law and order, it is now interesting to see that some probusiness voices are recasting the pirate as a "rogue innovator" whose practices may actually have something useful to teach to industry.[16] Also changing is the stereotypical identification of developing countries with the figure of the freebooting infringer. Often perceived as dens of organized piracy, these regions are now in some cases reflecting those accusations back on developed countries, as they protest foreign misappropriation of local cultural resources and the inadequacy of existing IP regimes to address it. Since the Agreement on Trade-Related Aspects of Intellectual Property Rights and the Convention on Biological Diversity, intellectual property has become inextricably woven into global politics—hailed as either a solution for or a contributing factor to poor economic development and loss of biodiversity. However, its application to non-Western contexts is creating political and intellectual frictions around notions of traditional knowledge and cultural heritage (disputes that affect, among other things, the labeling of traditional foods in supermarkets as well as the handling of cultural artifacts by museums).[17] In opposition to dominant narratives of global economic development structured around the uniformity of treatment produced by equally global IP agreements, some scholars and activists now argue that the very logic of IP—its foundation in the dichotomy between the (unprotectable) public domain and (protected) private intellectual property—is making legal a very specific and costly form of piracy. When the public domain is defined as the opposite of IP and is taken to include traditional knowledge, pharmaceutical plants, seeds, artifacts, and cultural imagery, IP can be seen as permitting the West to appropriate these valuable resources from the Third World, all the while abiding by international IP treaties.[18] The political economy of the "public domain" is shaping up into a fascinating postcolonial puzzle: the very same concept can be a progressive tool to curb the excesses of IP in the West while also functioning as the prime justification for the West's appropriation of non-Western knowledge and culture.[19] The A2K ("access to knowledge") movement is running into similar problems.[20]

That the public domain can appear as a progressive, left-leaning concept in the West while assuming distinctly nonleftist meanings in developing countries illustrates a more general pattern: the traditional alignments of the supporters and critics of IP are changing in unpredictable ways, thanks to the emergence of a remarkable diversity in the uses and articulations of IP as well as to the effects of its geographical and cultural migrations. In these new scenarios familiar descriptions of IP interest-group conflicts can lose much of whatever clarity they previously had. For instance, the commons-based models put forward by the free software (FS) and open source (OS) movements make possible collaborative frameworks in which knowledge and information can be developed, provided, and used by individuals who, at different times, may act variously like creators, distributors, or simply consumers of knowledge.[21] But while this knowledge and information is "free" (in the sense of being accessible and collectively modifiable), it still operates fully within a regime of intellectual property. Such collaborative frameworks, in fact, are made possible by creative licensing based on the default allocation of rights that the law provides. It is by licensing their contributions to the collective project that these individuals promote access while expanding the overall size of knowledge commons.

Because in this case copyright operates as a tool to provide free access to works, whether the FS/OS model amounts to a critique or just a rearticulation of IP is very much in the eye of the beholder. While it is quite possible to see FS/OS as revolutionary—a radical inversion of the original aims of copyright, which turns it into a tool enabling a cascade of share-alike licenses and an expanding commons—it is equally possible to say that, with all the good intentions and progressive politics of its proponents, these models rest on the very figure—the possessive individual author—at the root of the problems they are trying to redress.[22] The partial decoupling of property from access effected by FS/OS models is a challenge to traditional critiques of IP that view a systematic exposure of the conceptual and political problems underlying property in intangibles (and subsequent legislative changes) as the best way to make knowledge and cultural expression freely available.

For better or for worse, the meaning of "criticism" is changing—a trend that also can be detected in the logic of "cultural environmentalism," perhaps the most popular progressive discourse about IP in the United States today.[23] By analogizing the public domain to the environment and IP to human uses of natural resources, cultural environmentalism does not cast intellectual property as inherently problematic (or at least no more problematic than building dwellings and cultivating the land) but rather as something that needs to be done in a way that maintains a sustainable ecological balance between human activity and a healthy environment. What cultural environmentalists criticize

is not IP per se but its overuse—an overuse that they believe will lead to depletion of the public domain and, ultimately, to the impossibility of any new IP objects being produced. In sum, both the FS/OS models and the cultural environmentalism movement eschew the most fundamental criticism of intangible property in order to focus on the ways in which the production of knowledge, art, and culture can be sustained in collaborative settings within IP regimes. And, much as the FS/OS movement accommodates leftist, libertarian, and corporate interests (as shown by IBM's support of Linux), it is difficult to pin cultural environmentalism to a specific location on a traditional political spectrum.

One trend notable in this new discursive setting is the remarkable visibility and value now attached to the notion of "innovation."[24] It is not easy to criticize innovation, a concept put forward as being about the new but without the ideological baggage of more traditional terms like "progress." Cast as a process of emergence, innovation attaches value to the new but does not posit what shape the new should assume or in what direction it should be pursued. This flexibility is reinforced by the frequent characterization of innovation as "open"—a remarkably broad adjective that refers both to the collaborative character of its processes and to the nonteleological nature of its outcomes.[25] Innovation is presented as politically neutral and, unlike the equally broad notion of the "knowledge economy," it does not explicitly frame the new within a monetary economy. As a result, the concept of innovation can be applied equally well to the production of new scientific knowledge, new art, and new business models, to what hackers do as much as to the R&D activities of a corporate giant.

Some who call for promoting and sustaining innovation would probably have little problem acknowledging the unsolvable conceptual tensions at the foundations of IP, or the fact that the law misrepresents the actual processes of cultural production, especially collaboration. Generally, they prefer to avoid a radical conceptual critique of IP and focus instead on pragmatic workarounds like FS/OS collaborative frameworks for innovation. What matters are the results, not the theory. It is telling, in fact, that much of the criticism voiced by champions of innovation focuses not on the theory or even the doctrine of IP, but on its *institutions*. These critics are distinctly probusiness and do not view properly issued patents as monopolies. What upsets them is that the functioning of the patent *system*—how the Patent and Trademark Office evaluates and processes applications and how courts, particularly the specialized Court of Appeals for the Federal Circuit, handle their jobs—appears to have serious distortive effects. They argue that indiscriminate patenting may actually chill innovation, but they also contend that the patent system gener-

ally works well for some industries (chemical and pharmaceutical) but is a potential hindrance to others (software), thus effectively privileging one kind of innovation enterprise over another.[26] Advocates of innovation-based IP policy also put considerable weight on the importance of limitations and exceptions as a way of creating space within potentially over-restrictive doctrines.[27]

FS/OS platforms are very popular among the proponents of innovation, but their interest in collaborative forms of knowledge making (an interest that is shared, for different reasons, by scholars in the humanities and social sciences) extends to the study and elaboration of forms of knowledge production based on group customs and norms rather than IP law. In turn, this has created an interest in "economies" that hinge not on property but on prestige, visibility, and other forms of nonmonetary reward often associated with "open" platforms. Until recently, the best-known examples were found either in so-called traditional knowledge or in science, where researchers build careers primarily from the recognition they receive from their peers for the claims they publish, often in elaborately multiauthored papers.[28] Because their work is placed in the public domain through publication, not protected by IP, scientists do not receive rights but rather rewards in the form of professional recognition that can be turned into financial resources in the form of jobs, grants, etc. There are obvious—if somewhat misleading—analogies between scientific authorship and FS/OS economies of recognition and prestige[29] as well as between these two forms of collaboration and so-called gift economies.[30] What we are now seeing, however, is an expansion of the range of norm-based forms of knowledge and culture making being studied by legal scholars, anthropologists, and social scientists—chefs, comedians, magicians, as well as all sorts of communal forms of material resource management, from fisheries to grazing land and water.[31]

Technology is obviously crucial to all of the developments discussed here. But while patent, copyright, and trademark law has always evolved, in part, in relation to technological changes, today we are witnessing a different mode of interaction between technology and IP. Early patents tended to be about technologies of production but soon shifted to focus more on the consumer products made possible by those technologies. And as the very meaning of technology has changed and expanded, so have the subject matter requirements for patentability—from the *Diamond v. Chakrabarty* (1980) decision to allow the patenting of genetically modified organisms to the *Diamond v. Diehr* (1981) ruling about the patentability of software and the more recent acceptance of patent applications relating to "purified" genetic sequences.

Similarly, the subject matter of copyright has expanded from book texts to include printed images and then music, art, software, and a range of other products deriving from the "fixation" of authors' personal expression in material

media. Although it is a truism of copyright that the law protects "expressions" and not "ideas," doctrinal evolution has put that familiar distinction under real pressure. For example, as more and more variants of a literary text (the movie rights, the translation rights, the video game rights, and so forth) have come to be comprehended under a single copyright, the focus of protection has inevitably shifted from the highly particular toward the relatively general. These shifts were, of course, strongly abetted by the presence of the author figure as the central organizing concept in personalist copyright discourse. They also owe much to technological changes that have increased the range of expressive options available to culture makers. Likewise, the development of biotech, digital technology, and the latter's articulations in infrastructures like the Web have profoundly changed the nature of the game, not only its size. For example, the patenting of human cell lines and, more generally, of the human genome is challenging traditional notions not only of property but of personhood itself.[32] Similarly, the use of geographical indications to protect traditional manufactures and local cultures (of products such as champagne, parmesan cheese, and possibly also Darjeeling tea, Mysore silk, and traditional *sarees* from specific Indian villages) shows that IP is becoming actively involved not only in the protection of goods and craft knowledge but also in the construction of local cultural identities.[33] Perhaps in the not so distant future the notion of "cultural imagery" will become subsumed under "branding."[34]

New information technologies are having other, even more far-reaching effects on the configuration of rights in intangible property. Digital technologies make the copying, manipulation, and distribution of texts, images, and music much easier and remarkably cheaper. But they also allow rights holders to take the law into their hands, so to speak, with wired-in functions that prevent copying or reproducing independently of the context of use. Digital rights management does this for digitized copyrighted material, while the "terminator genes" embedded in patented genetically modified seeds may be seen as the biological analog.[35] But in so doing, these technologies do not simply implement IP but effectively expand it in a way that is blind to context. This occurs (for example) when DRMs (interference with which is, in turn, prohibited by the 1998 Digital Millennium Copyright Act) effectively prevent actions and uses that, in some cases, could be lawful copying protected by fair use doctrine.

Finally, as these new technologies extend the production, enforcement, and expansion of IP down to a capillary level, they have turned millions of people into "authors." This means not only many more authors *but more different kinds* of authors occupying social niches that authors had not traditionally inhabited before. Even more important, technology has profoundly changed the

conditions of possibility for collaborative production of knowledge and culture. While many kinds of collaborations are only marginally affected by the possibilities provided by cyberinfrastructure (like all those involving material objects and processes that cannot be digitized), there is no doubt that digital information technologies are creating collaborative spaces that never existed before. These technologies are putting great pressure on traditional notions of IP not only by making copying cheap and easy but also by making possible *new ways of producing new things* through the formation of new productive networks and forms of sociability.

Ubiquitous digitally enabled authorship has foregrounded some of the most basic tensions in copyright by highlighting the extent to which all new cultural production is inevitably not only collaborative but derivative. One result has been a new interest in limiting doctrines in IP, including copyright exceptions like fair use. In a world where accusations of infringement fly around videos posted on YouTube and other DIY media platforms, questions about when and how it is appropriate to make use of existing materials as resources for one's own creativity assume new importance. New technologies make it inevitable that more and more of us will be authors, whether or not we desire that status. They also remind us that we are all also users and that, as a result, we depend on the porosities of IP for the accomplishment of our own expressive projects.[36]

Rationale and Relevance

No single master narrative can account for the extraordinarily broad range of issues, positions, participants, and proposals that make up the conversations and disputes about IP, or for their intensity. And while the courts of law and IP attorneys have, and will retain, a key role in these processes, IP discourse is now fully "out of the bag" and has been taken up and acted on by a huge array of different stakeholders. In some contexts (as with policies about the protection of traditional knowledge) much of the action no longer takes place solely within the legal institutions of the state but is framed by international treaties and articulated through local negotiations and arrangements, often involving nongovernmental organizations. The overall trend in both developed and developing countries is not unlike what we see in biomedical research, where patients are increasingly assuming a key role in funding and directing research, as well as in lobbying the state for related policy.[37]

Those who have developed stakes in IP are not now just more vocal and proactive than their predecessors but have also made very tangible, specific contributions to both the practice and theory of IP. FS/OS models, for instance,

were not invented by legal scholars, attorneys, or legislators, but by the hackers themselves as a solution to pressing problems about the governance of their collaborations. They wrote licenses the way they wrote code, as if these were two kinds of "instrument." While it is difficult to find many other examples as striking as this, there is no doubt that the previously tight divide between the law and its users and subjects has become a permeable membrane. Not everyone can successfully lobby Congress to change IP law, but there are obviously different ways to use and articulate and recombine it without having to call for legislative change or even go to law school. Analogously, the remarkably broad range of disciplines that now engage with IP should not be viewed as yet another academic exercise in interdisciplinarity but rather as the result of the actual migration of IP (both as a body of research topics and as matters of practical professional and political concern) into all these disciplines, further eroding the distinction between those whose lives have been affected by IP and those who are attracted to study it as a wonderfully complex bundle of problems.

We envisage a comparably broad readership: students and scholars across the disciplines as well as law students and scholars who want or need to look beyond the necessarily tight boundaries of IP textbooks—anthropologists familiar with issues of IP relating to traditional knowledge but seeking exposure to the cultural and conceptual dimensions of patents and copyright; literary and cultural historians; historians of the book and of print culture more generally; historians of science and technology; and scholars and practitioners working in music and the visual arts.

Accordingly, this book seeks to identify and interrogate a constellation of IP discourses and objects from the work of legal scholars, anthropologists, indigenous rights advocates, literary scholars, art historians, science studies and communications studies practitioners, musicologists, historians, folklorists, and economists. While related to legal definitions of IP, these discourses and objects do not necessarily match them. We are especially interested in these mismatches, as also in the arrangements that emerge at the margins of IP law. Not only can these mismatches and emergent scenarios suggest directions for saner future articulations of IP law, but they also provide excellent material for both understanding and producing culture. In this book, in fact, "intellectual property" is typically used under erasure. Many of the chapters show that the production of things, practices, and texts is not reducible or ascribable just to the "intellect" (and certainly not to the intellect of one individual) and that "property" rarely captures the relations between people and the things they produce, try to use, gain access to, or simply control.