

## Preface



One of the most common things that students tell us when they take this class is “IP isn’t what I expected at all!” There are so many misconceptions. “You need a technical background!” “It only affects businesses.” “So long as you give credit to an artist, you can pretty much do what you want with their work.” “The First Amendment has no relevance to IP.” All false. If you make it to the end of the book, that will become clear. In the process, you will learn about the main branches of intellectual property law – trademark, copyright, patent and trade secrecy – getting an understanding of why these laws matter deeply to our culture, science and politics. Here we take a different, and much *shorter* approach – the view from 50,000 feet. In this Preface we take an event that, unless you live in a very deep cave, you have probably already thought about: the COVID-19 pandemic. Our mission is to show you both the human stakes and the intellectual issues that are involved when we think hard about innovation.

Our memories of the pandemic are still vivid. COVID-19 spread around the world, causing death and illness and changing bits of our lives forever. We saw friends and relatives lose their loved ones or fall sick themselves. We saw global tragedy, exacerbated by global inequality. We saw heroes and fools, brilliant innovation and blundering idiocy. Most of all, we sat in our houses, staring at our little screens, whether they were bringing us classes over Zoom, Queen’s Gambit, or the latest scientific research.

Something else remarkable happened during that period. Beyond the *pathos* of loss and the *bathos* of the trivia with which we distracted ourselves, there was an intellectual sea-change. For at least a year, maybe 18 months, a large percentage of the world’s population focused on the kinds of issues that intellectual property scholars obsess about every day. How do we incentivize research into, and production of, vaccines against this disease? Remember that the incentives may range from the pursuit of scientific fame or the urgings of the conscience, to the politician’s desire to give voters what they want, or the drug company’s pursuit of future profits.

What are the roles for the public and private sectors? Will research, manufacture and delivery—shots into arms—go fastest if it is fueled by “push” or “pull”? *Ex ante* grants from governments and philanthropists or *post hoc* property rights over discoveries? More specifically, what aspects of knowledge and discovery should be available to all, “free as the air to common use,” so that an entire global community can build upon them? What aspects must be fenced off, covered by exclusive rights such as patents, protected as trade secrets, or merely sequestered in copyrighted scientific journal articles, sitting behind paywalls? Will exclusive rights lure biotech startups and drug companies to focus on this problem, enticed by the promise of a lucrative monopoly were they to succeed? The central issue of intellectual property is the balance between open and closed, public domain and private right. The pandemic added the pressing humanitarian issues of global public health to the technocratic questions of optimum innovation policy. What is the right balance between encouraging innovation through exclusion and spreading its results cheaply to the world? This question was particularly acute in a context where leaving a significant proportion of the world unvaccinated is a threat to everyone, even the vaccinated, because of the possibility of mutation.

Should we have a global moratorium over the enforcement of patents over COVID

vaccines and therapies? Or will that actually slow down the very process it is supposed to help, either because it scrambles the incentive system or because the know-how and tacit knowledge required to make the new vaccines goes far beyond the patents and is almost impossible to pass on, even if its possessors were willing to do so? If that were true, then the ability effectively to make the vaccine will remain in Europe and the US whatever the legal status of the patent rights. But is it true? And how can we know when much of that technology is secret? The more one knows, the more numerous the questions become.

The struggles over COVID did not take place in a vacuum; they were shaped by earlier decisions, inflection points and design choices about institutions and architecture. Intellectual property law and policy played a major role in those choices. The incredibly rapid sharing of the COVID-19 genome, which jump-started the vaccine development process, took place against the background of the earlier sequencing of the human genome. At the time, efforts were made to “privatize” aspects of that genomic map. Those efforts were rebuffed, for reasons that you will study in this class, and the eventual public-private partnership that released the first draft of the human genome did so openly. Both the map and the tools used to draw it were widely shared. That would turn out to be vital in the vaccine development process, but so would the long-pursued private efforts to create mRNA vaccines, which overcame daunting technical obstacles to produce an incredibly promising new technology, the uses for which go far beyond COVID.

To pick another example, we take for granted the existence of a network—the internet—and the law and custom of open access to scientific literature, particularly when it lays out the results of government funded research. Both were vital in the accelerated process of scientific development but, as you will learn, neither was inevitable and both faced, and still face, considerable opposition. Some of that opposition was rooted in claims about intellectual property – claims you will discuss in this class. People may no longer obsess about COVID – perhaps wrongly – but the lessons it has to teach us are by no means over.

These questions – Property or commons? Monopoly or state-funded public good? Open networks or proprietary ones? – are exactly the types of issues intellectual property scholars study. They are not the *only* issues you will focus on in this course—far from it, and this should be reassuring to those of you who have been (falsely) told that intellectual property law requires a technical or scientific background.

You will be addressing whether a satirical mashup infringes the copyright over a song and whether a parodic website attacking a corporation or public figure commits trademark infringement. Does the United States Olympic Committee get to prohibit the holding of a “Gay Olympic games”? Did Taylor Swift infringe *copyright* when she noted that players are, logically enough, going to play, while haters will, unsurprisingly, hate? Someone else had come up with that deep insight beforehand. Does that mean she is legally forbidden from putting it in a song? Is it legal to “jailbreak” your iPhone, so that you can use apps that Apple did not approve? You will learn about attempts to claim property rights over the text of the law, human genes, and the shape and color of a banana costume. On the other end of the spectrum, you will learn about the creation of privately constructed commons where the creators have chosen to grant their users rights to copy and even modify the work; using private intellectual property rights to create a space of public freedom. These include free and open source software such as Android, Chrome, and Linux. The authors of that software may range from scientists employed by major corporations to private individuals contributing to the project for the love of creation or the hope of professional recognition. But this intellectual shared space also includes

Creative Commons licensed content, from Wikipedia and open access scientific literature, to the very textbook you are reading at this moment. You will see fights over intellectual property rules significantly shape the architecture of the Internet that is such a central and unquestioned feature of your lives. You will see the Mattel corporation attempt to stop a conceptual artist from taking pictures of Barbie “being attacked by various vintage household appliances,” and work out whether it is legal to use bots to play the early levels of World of Warcraft.

We will discuss generative AI systems such as ChatGPT and Stable Diffusion. They clearly raise deep questions about art, literature, human language, and about the nature of creativity itself. But a central issue they face is one of copyright law. How do we balance compensation for creators with the freedom to learn and research by training models on the culture of the past? Most AI developers claim that training on millions of (copyrighted) documents is a privileged “fair use.” They tell us—with some degree of plausibility—that without that freedom we might not have this amazing technology *at all*. When commercial air flight began, some property owners argued—rightly according to then-current notions of the rights entailed in owning real estate—that their property rights extended up through the atmosphere and therefore that an overflight by a jet was trespass. Our society decided that negotiating individual rights of passage would be impossible. The skies must become a commons: a commons regulated by the state to ensure safety, but a commons nevertheless. We will all benefit from the availability of air travel, and benefit more than we lose because the law declares one particular entitlement—the right to deny overflight—is not in our bundle of property rights. Is the situation analogous here, or are we giving developers a free ride to build a new technology on our common cultural output, denying compensation to human artists in order to let machines take their jobs? Both?

Not everything will be shiny and futuristic, a Jetson’s Jurisprudence of weird new technologies and cultural forms. We look backwards as well as forwards. This subject has a rich and fascinating history. You will read Mark Twain arguing for perpetual copyright, Macaulay describing copyright as a tax on readers for the benefit of writers and Victor Hugo explaining how the rights of authors are central to free speech and to an intelligentsia that is not dependent on the state. But the study of innovation and creativity also has incredible cultural *reach*. We will roam broadly in the horizontal dimension across our culture as well as vertically back into our past. Free speech, transgressive art, innovation and economic growth, the ecologies of creativity from cooking and stand-up comedy to software, literature and music. All of this will be grist to our mill.

Our point here is simple. The pandemic shows us how vital these questions are and how important it is to get them right. But we also hope you can get a hint of how *fascinating* they can be. We feel privileged to study them. We hope this book gives you some sense of why, and how, that might be.



# Introduction



This is an introduction to intellectual property law, the set of private legal rights that allows individuals and corporations to control intangible creations and marks—from logos to novels to drug formulæ—and the exceptions and limitations that define those rights. It focuses on the three main forms of US federal intellectual property—trademark, copyright and patent, with a chapter on trade secret protection—both Federal and state. Despite that central focus, many of the ideas discussed here apply far beyond those legal areas and far beyond the law of the United States. The cases and materials will discuss the lines that the law of the United States draws; when an intellectual property right is needed, how far it should extend and what exceptions there should be to its reach. But those questions are closely linked to others. How should a society set up its systems for encouraging innovation? How should citizens and policy makers think about disputes over the control of culture and innovation? How do businesses re-imagine their business plans in a world of instantaneous, nearly free, access to many forms of information? How should they do so? And those questions, of course, are not limited to this country or this set of rules. They should not be limited to the law or lawyers, though sadly they often are.

A word on coverage: An introductory class on intellectual property simply does not have time or space to cover everything. This course is designed to teach you basic principles, the broad architectural framework of the system, the conflicting policies and analytical tools that will be useful no matter what technological change, cultural shift, or legal reform tomorrow brings. Imagine the lawyer who started practicing in the early 1980s and had to deal with the rise of cable TV, a global internet, digital media, peer to peer systems, genetic engineering, synthetic biology . . . but also with viral marketing, the culture of “superbrand” identity, cybersquatting and social media, together with a radically changed legal environment. You will be that lawyer, or that citizen. Your world will change that much and you will need the tools to adapt.

To achieve this goal—a “future-proofed” grasp of the basic principles and tensions of the system—the book has to omit large swaths of detail. For example, standard form, “click to accept,” contracts and licenses are extremely important in the world of digital commerce, but will be covered only to the (important) extent they intersect with intellectual property law. Even within the topics that are covered, the approach of the class is highly selective. We will cover the basic requirements for getting a trademark, and the actions that might—or might not—infringe that right. But we will not cover the complexities of trademark damages and injunctions, international trademark practice or the fine detail of the ways that Federal and state trademark law interact. Copyright law is full of highly specialized provisions—applying special rules to cable television stations or music licenses, for example. We will be mentioning these only in passing. Similarly, patent law is an enormously complex field; there are entire courses just on the details of patent drafting, for example, and there is a separate “patent bar” exam for registered patent attorneys and agents. This class will touch only on the basics of patentable subject matter, and the requirements of utility, novelty, and non-obviousness.

As we will explain in a minute, one feature of this book makes this selectivity less of a problem. Because this is an “open” casebook, an instructor can take only those chapters that he or she finds of interest and can supplement, delete or edit as she wishes.

## Comparison of the Three Main Forms of Federal Intellectual Property

	TRADEMARK	COPYRIGHT	PATENT
<i>Constitutional and Statutory Basis</i>	Commerce clause, Lanham Act. (There are also state trademarks.)	IP Clause, Copyright Act	IP clause, Patent Act
<i>Subject Matter</i>	Word, phrase, symbol, logo, design etc. used in commerce to identify the source of goods and services	Creative works—for example, books, songs, music, photos, movies, computer programs	Inventions—new and useful processes, machines, manufactured articles, compositions of matter. Not abstract ideas or products/laws of nature
<i>Requirements for Eligibility</i>	Not generic (or merely descriptive without secondary meaning), identifies source of product or service, used in commerce	Original expression, fixed in material form	Useful, novel and non-obvious to a person having ordinary skill in the art (PHOSITA)
<i>Rights</i>	Basic trademark right only <i>vis a vis</i> a particular good or service. Bass for beer, not ownership of word “Bass.” Prevent others from using confusingly similar trademarks; for famous marks, prevent others from “diluting” the mark. Also prohibitions against false or misleading advertising.	Exclusive rights to copy, distribute, make “derivative works”, publicly perform and publicly display. Possibly new right to stop circumvention of digital ‘fence’ protected © works.	Exclude others from making, using, selling or importing invention
<i>Duration</i>	If renewed and continually used in commerce, can be perpetual.	Life plus 70 years; 95 years after publication for corporate works	20 years for utility patents
<i>How Rights are Procured</i>	USPTO trademark registration process for ® status, though common law rights are recognized absent registration	Creation and fixation in a tangible medium; registration is not required to get copyright (but is required for suit to enforce)	USPTO patent application process
<i>Examples of Limitations and Exceptions</i>	Genericity, nominative fair use, parodic use	Idea and fact/expression distinction, scènes à faire, fair use, first sale	Abstract knowledge in patent application disclosed freely. Subsequent inventors can “build on” patented invention and patent result without permission. Both inventors must consent to market resulting compound invention.

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## Basic Themes: Three Public Goods, Six Perspectives

This book is organized around a debatable premise; that it is useful to group together the three very different types of property relations that comprise Federal intellectual property law—trademark, copyright and patent. A chart that summarizes their main features is on the previous page. Obviously, trademarks over logos are very different from copyrights over songs or patents over “purified” gene sequences. The rules are different, the constitutional basis changes, the exceptions are different and there is variation in everything from the length of time the right lasts to the behavior required to violate or trigger it. Why group them together then? The answer we will develop depends on a core similarity—the existence of a “good”—an invention, a creative work, and arguably a logo<sup>1</sup>—that multiple people can use at once and that it is hard to exclude others from. (Economists refer to these as “public goods” though they have more technical definitions of what those are.) Lots of people can copy the song, the formula of the drug, or the name Dove for soap. But the approach in this book also depends on the *differences* between the goals of these three regimes and the rules they use to cabin and limit the right so as to achieve those goals. The idea is that one gains insight by comparing the strategies these very different legal regimes adopt. The proof of that pudding will be in the eating. Our readings will also deal with the claim that the term “intellectual property” actually causes more harm than good.

This book is built around six perspectives. Some are introduced as separate chapters, while others are woven into the materials and the problems throughout the entire class. The first deals with the main rationales for and against intellectual property. The second focuses on the constitutional basis for, and limitations on, that property in the United States. The third is the substance of the course; the basic doctrinal details of trademark, copyright and patent, and the broad outlines of trade secrecy, which is protected both by state rules and a new Federal cause of action. The fourth concentrates on the way that intellectual property law reacts dynamically to changes in technology. We will focus on what happens when trademark law has to accommodate domain names, when copyright—a legal regime developed for books—is expanded to cover software and when patent law’s subject matter requirements meet the networked computer on the one hand and genetic engineering on the other. In particular, the copyright portion of the course, which makes up the largest portion of the book, will detail extensively how judges and legislators used the limitations and exceptions inside copyright law to grant legal protection to those who create software, while trying to minimize anti-competitive or monopolistic tendencies in the market. The fifth deals with the metaphors, analogies, similes and cognitive “typing” we apply to information issues. This is an obviously artificial property right created over an intangible creation; the way that the issue is framed—the baselines from which we proceed, the tangible analogies we use—will have a huge influence on the result. Finally, the conclusion of the course tries to synthesize all of these perspectives to point out prospects, and guiding principles, for the future.

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<sup>1</sup> Trademarks are more complex. Some scholars say trademarks are nevertheless not true public goods because a logo that is used by everyone, by definition, does not function as a trademark—a source identifier—whereas a copied invention or song still retains their own qualities. We will deal with this complexity later. For now, it is enough to note that as with copyright and patent, we wish to exclude others from copying the thing covered by the right, in this case the trademark, destroying its value to us in the process. That similarity is sufficient for our purposes.

## An Open Course Book?

This book is made available under a Creative Commons Attribution, Non-Commercial, Share-Alike 3.0 Unported License. Later in the semester, you will be able to engage in learned discussion of this arrangement. You will be able to work out what the copyright on the book does and does not cover (hint, Federal legal materials are in the public domain), why and how the license is enforceable, and what rights you would have even in the absence of a license (such as the right to quote or criticize). At the moment, all you need to know is this. You are free to copy, reprint or reproduce this book in whole or part, so long as you attribute it correctly (directions are given on the copyright page) and so long as you do not do so commercially, which we interpret to mean “for a profit.” In other words, you can print copies and distribute them to your students or your friends, who apparently have very geeky interests, at the cost of reproduction, but you may not make a competing commercial edition and sell it for a profit or use it as a draw to promote your own commercial textbook business. You can also modify this book, adding other material, or customizing it for your own class, for example. But if you do modify the book, you must license the new work you have created under the same license so that a future user will receive your version with the same freedoms that you were granted when you received this version.

Why do we do this? Partly, we do it because we think the price of legal casebooks and materials is obscene. Law students, who are already facing large debt burdens, are required to buy casebooks that cost \$150–\$200, and “statutory supplements” that consist mainly of unedited, public domain, Federal statutes for \$40 or \$50. This is not a criticism of casebook authors, but rather of the casebook publishing system. Putting together a casebook is a lot of work and can represent considerable scholarship and pedagogic innovation. We just put together this one and we are proud of it. But we think that the cost is disproportionate and that the benefit flows disproportionately to conventional legal publishers. Some of those costs might have been justifiable when we did not have mechanisms for free worldwide and almost costless distribution. Some might have been justifiable when we did not have fast, cheap and accurate print on demand services. Now we have both.

We make this casebook available in two forms. First, it can be digitally downloaded for free. No digital rights management. Second, it is available in a low cost but high-quality paperback version for about \$35—which given the possibility of resale, might make it an environmentally attractive alternative to printing out chapters and then throwing them away. The companion statutory supplement is available under a similar arrangement—though under a license that is even more open. Those who do not want, or cannot afford, to pay that price can use the free digital versions.

The price of this book is intended to be a demonstration of how unreasonable casebook costs are. We are making the digital version freely available and trying to price the paper version inexpensively, but we entirely support those authors who wish a financial reward. We calculate that they could actually set the price of an 825 page book *\$100 cheaper* than the average casebook today (albeit in paperback) and still earn a comparable royalty per book to what they currently earn.

Authors could even make the digital version freely available and do nicely on print sales, while benefiting in terms of greater access and influence. Our point is simply that the current textbook market equilibrium is both unjust and inefficient. Students are not the only ones being treated unfairly, nor is the market producing the variety or pedagogical inventiveness one would want.



Personally, we do not merely wish to lower the costs of educational materials but, where possible, to make those materials open—a different thing. Open licenses and freely downloadable digital versions make the digital version of educational materials freely available to the world, not just in terms of zero price, but in terms of legal freedoms to customize, translate, edit and combine. We are not the first to try and make open source educational material or even casebooks. We would like to thank the good folk at Creative Commons and MIT Open Courseware, Barton Beebe, Bryan Frye, Lydia Loren, CALI's eLangdell, Jordi Weinstock, Jonathan Zittrain, and the H20 project at Harvard for giving us ideas and inspiration.

We also hope that the inexorable multiplication of projects such as these will be an aid to those still publishing with *conventional* textbook publishers. Traditional textbook publishers *can* compete with free. But they have to try harder. We will all benefit when they do.

We have another goal, one that resonates nicely with the themes of the course. Most authors who write a casebook feel duty-bound to put in a series of chapters that make its coverage far more comprehensive than any one teacher or class could use. As a result, the casebook you buy contains chapters that will never be assigned or read by any individual instructor. It is like the world of the pre-digital vinyl record. (Trust us on this.) You wanted the three great songs, but you had to buy the 15 song album with the 9 minute self-indulgent drum solo. This book contains the material *we* think vital. Because of the license, however, other teachers are free to treat the casebook in a modular fashion, only using—or printing—the chapters, cases and problems they want, adding in their own, and making their own “remix” available online as well, so long as they comply with the terms of the license.

## Structure and Organization

A word about the organization of the book: First, each chapter has a series of problems. The problems bring up issues that we want you to think about as you read the materials. Some are intended to “frame” the discussion, others to allow you to measure your mastery of the concepts and information developed, or to deepen your understanding of the analytical and argumentative techniques the book sets forth. The problems are covered under the same license—you should feel free to extract them, even if you do not use the book. Second, in the copyright section, we draw on material from our educational graphic novel *Theft!: A History of Music* to present some of the doctrinal material in a memorable and visually interesting manner. Third, each major section of the book—trademark, copyright, patent—is preceded by a flow chart to show students how the whole jigsaw puzzle fits together. The flow charts can also be used to work through the materials in the problems. Then, at the end of the section, we provide a checklist of issues that the casebook has dealt with; students can use these for outlining or simply refreshing their memories.

The open licensing arrangement of the book means that we include little material that is not either public domain, written by the authors themselves, or available under a Creative Commons license. But since that same licensing arrangement allows for near infinite customization by users, we hope that is not too much of a problem. We include short excerpts from *The Public Domain*—also Creative Commons licensed and freely downloadable—with hyperlinks to the full versions of those readings. We use it as a companion text in the course. The excerpts provide historical and theoretical background keyed to the discussion and the problems. Instructors and readers who wish to omit those readings, or to insert other secondary materials, should just ignore them.

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If you adopt the book, or any part of it, please let us know! Comments to boyle [AT] law.duke.edu are always welcome, particularly if you can tell us why certain chapters or exercises were helpful or not helpful to you as an instructor or student, or describe a particular customization. Free digital versions of the latest edition will be available at <https://law.duke.edu/cspd/openip/>.

**Note on the Sixth Edition:** The last edition introduced a new set of tools for teachers and students; flowcharts before and checklists after each doctrinal subject. We found that this helped students structure their analysis and get beyond the elements of a cause of action to more sophisticated topics. This edition continues that format and expands it. Substantively, we have made several important changes. The sixth edition features a discussion of generative AI, which is introduced theoretically, compared historically to other disruptive technologies, and then presented through a detailed problem exercise on fair use. This edition also includes the recent Supreme Court decisions in *Vidal v. Elster*, *Andy Warhol Foundation for the Visual Arts v. Goldsmith* and *Jack Daniel's Properties v. VIP Products*, as well as updates on patent law's troubled jurisprudence on subject matter limitations. The conclusion attempts to summarize and synthesize the themes of the book. There too, the topic of generative AI is a fine example to show students the connections that run through the material and the course.

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