Intellectual Property in the New Technological Age: 2016

Volume I: Perspectives, Trade Secrets and Patents

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For Rose, as always

M.A.L.

For Claire, Dylan, and Noah

P.S.M.

For my brothers, Bruce, Paul, and Matt

R.P.M

PREFACE

When we embarked on this project more than two decades ago, we envisioned many things, but not that it would lead to self-publishing a casebook.

A lot has changed since we began collaborating. At the time that we launched this project, most intellectual property courses were taught along particular mode of protection lines: patent law, copyright law, trademark law, and trade secret law. From our research and real world experience, we recognized that digital technology blurred the traditional doctrinal lines. We set out to design a book for the emerging technological age. We built the book around core philosophical frameworks, broad integrated coverage, and a pedagogical model that emphasizes problem-solving.

Over the ensuing years, our insight and framing proved enduring. Nearly all manner of enterprise and organization—from high technology start-ups to traditional manufacturing and media companies, government agencies, and even educational institutions—came to confront a broad range of intellectual property issues spanning the full spectrum of protection modes. The survey intellectual property course became a core subject at our law schools and many others across the United States and around the world. That much we had at least dreamed of.

But we did not foresee entering the publishing business. During the formative stage of our careers, we were thrilled to gain the interest of established publishers. Our book hit the market just as the Internet was gaining traction. The IP field expanded rapidly and we found ourselves churning out new editions every two or three years to keep pace with the increasing velocity of IP law. Little, Brown's law book division was acquired by Aspen, which was then acquired by Wolters Kluwer. The market for our book continued to grow.

Yet as advances in digital technology reshaped the world around us—from Internet search to online publishing—we, and our adopters and students, saw relatively little change in our publishing market. Prices continued to rise each year. Publishing schedules remained rigid. The publishing of our book seemed suspended in time. Most frustratingly, our students were paying well over \$200 for a book that generated just \$15 in total royalties. This pattern conflicted with the thrust of our book and scholarship. Advances in digital technology and competition should have been driving prices down, not up. Our frustration grew.

These issues came to a head in September 2014. When our publisher indicated that we missed the deadline for getting our book into the summer 2015 catalog, we dusted off our original publishing contract from December 1993. In checking the revision clause, we recognized that we held the copyright in the work *and* retained the right to prepare derivative works.

Once we realized that we had the right to shift to self-publishing, we faced a choice: stay with a leading publisher or take on the start-up costs and day-to-day operations of self-publishing. Peter had been writing about disintermediation in the media industries and strongly believed the time was ripe to branch out on our own. He posed a simple question: how would we view this choice ten years down the road? A quick review of self-publishing options indicated that we could substantially reduce the cost of our book while providing students with more convenient access—both digital versions and print-on-demand. We could also move to annual editions and take control over the production pipeline. This would ensure that our book was always current. Although striking out on our own involved some risk and additional tasks, failing to take this path would perpetuate an obsolete and unjustifiably costly burden on students at a time when they can ill afford it. We decided to take the plunge.

After reviewing options, we decided to begin our self-publishing experiment with Amazon. (We retain copyright ownership and hence flexibility to try other platforms as the marketplace evolves, an important lesson from various media markets.) Amazon's publishing platform imposes size limits that required us to divide our book into two volumes: Volume I covering Philosophical Perspectives, Trade Secrets, and Patent Law (we also included the patent preemption cases from Chapter VI for those interested in studying those materials in conjunction with the trade secret and patent law chapters); Volume II covering Copyright Law, Trademark Law, and State Law IP Protections (including the preemption materials). The volumes will be available as eBooks and through Amazon's on-demand publishing platform. This has the virtues of reducing the weight of what students need to carry around on a daily basis and creating more modular teaching options. We also plan to distribute Chapters I and II on SSRN so that students can sample the book before committing to the class.

Which brings us to what we hope is a New Publishing Age for all manner of academic publishing. In addition to releasing IPNTA2016 (we plan to designate new editions by publication year rather than volume number), we are launching Clause 8 Publishing, a new publishing venture to “promote Progress” in intellectual property education (and possibly more). We plan to introduce a series of complementary products, enhancements, supplementary texts, multimedia, and other resources for adopters and students—at low cost and with easy accessibility. You will be able to learn about these resources at IPNTA.com and Clause8Publishing.com over the coming year.

While we are exploring new paths in many respects with this book, in one respect we decided on a traditional approach: as is customary in legal academic writing, the authors are listed alphabetically. You shouldn't read anything into that other than an effort to follow the norm. Rob and Mark want to express our appreciation to Peter for the extraordinary work he has put in this year making this project a reality. Peter has managed the transition of our book to a self-publishing model and will be taking the lead on establishing this platform. Those interested in adopting our book (or anything

else about the project) should contact him at pmenell@law.berkeley.edu. (Please include “IPNTA” or “Clause 8” in the subject line.)

In retrospect, the subject matter covered by our original edition—philosophical perspectives on intangible resources, promoting progress in technology and creative expression, and competition policy—set us on the path to DIY/New Age publishing. Copyright law seeks to harness market forces to encourage creative expression and widespread dissemination. It builds bridges between creators and those who value their work. Digital technology and the Internet enhance these powerful forces by lowering the costs of creation and providing the virtual dissemination bridges. We feel fortunate to have liberated our book and very much look forward to working with law professors and students in building a more productive marketplace and community for IP teaching materials.

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June 2016

NEW FEATURES

Rapid advances in digital and life sciences technology continue to spur the evolution of intellectual property law. As professors and practitioners in this field know all too well, Congress and the courts continue to develop intellectual property law and jurisprudence at a rapid pace. For that reason, we have significantly augmented and revised our text.

The 2016 Edition reflects the following principal developments:

- **Trade Secrets:** Congress passed the Defend Trade Secrets Act of 2016, one of the most momentous changes in the history of trade secret protection. The new law opens up the federal courts to trade secret cases, provides for ex parte seizures of misappropriated trade secrets in “extraordinary circumstances,” and establishes immunity for whistleblowers.
- **Patent Law:** The past several years have witnessed some of the most significant developments in U.S. patent history—from the establishment of the new administrative review proceedings at the Patent Office to important shifts in patent-eligibility, claim indefiniteness, and enhanced damages at the Supreme Court and means-plus-function claim interpretation and infringement doctrine at the Federal Circuit. We have restructured the patent chapter to illuminate these areas. We have also significantly expanded coverage of design patents in response to the growing importance of this form of protection.
- **Copyright Law:** The Supreme Court issued important decisions addressing the public performance right and the first sale doctrine. The past few years also witnessed important developments in the Online Service Provider safe harbor, fair use, and state protection for pre-1972 sound recordings. We have also integrated the digital copyright materials into a unified treatment of copyright law and substantially revamped the fair use section to reflect the broadening landscape of this important doctrine.
- **Trademark Law:** We have integrated important cases on federal registrability of disparaging marks, merchandising rights, likelihood of confusion on the Internet, and remedies.
- **Other State IP Protections:** We have updated material on the right of publicity, an active and growing area. We have also reorganized the chapter and focused it on IP regimes.

ABOUT Clause 8 Publishing

Clause 8 Publishing is a digital publishing venture founded and managed by Peter Menell. Mark Lemley and Robert Merges serve on the Editorial Board. Inspired by Article I, Section 8, Clause 8 of the U.S. CONSTITUTION, Clause 8 Publishing seeks to promote production and dissemination of the highest quality and most up-to-date educational resources at fair prices and in a way that ensures that much of the revenue flows to authors. It aims to streamline the publishing process, take full advantage of evolving digital platforms and print-on-demand functionality, and develop innovative educational resources.

Clause 8 Publishing plans to produce annual editions of INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE.

Over the coming years, Clause 8 Publishing aims to support a series of complementary products (statutory supplement, primers, problem sets, multi-media presentations) and resources for intellectual property professors, students, judges, and policy makers. It aspires to lead the academy toward more productive and just publishing models. More information will be available at Clause8Publishing.com and IPNTA.com.

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We are indebted to a great many people who have helped us since this project began in 1991. We would like to thank our many colleagues who reviewed earlier drafts of the book and provided helpful guidance. While many of these reviews were anonymous, we have also benefitted from the advice of Lynn Baker, Paul Heald, Tom Jorde, and Pam Samuelson, each of whom read several different drafts of the book as it made its way through the editorial process. We gratefully acknowledge the research assistance of Evelyn Findeis, Edwin Flores, Ryan Garcia, Shari Heino, Toni Moore Knudson, Christopher Leslie, and Barbara Parvis. We would also like to thank Michele Co for exceptional secretarial and administrative assistance in completing the original text.

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EDITORIAL NOTE

We have selectively omitted citations and footnotes from cases without the uses of ellipses or other indications. All footnotes are numbered consecutively within each chapter, except that footnotes in cases and other excerpts correspond to the actual footnote numbers in the published reports. Many of the problems in this text are taken from actual cases. In many instances, have altered the facts and the names of the parties for pedagogical purposes. In a few cases, however, particularly in the trademark chapter, we felt that it was important to the problem to use the name of a product or company with which the reader would be familiar. Readers should understand that the problems are hypothetical in nature and that we do not intend them to represent the actual facts of any case or situation.

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The concept of property is well understood in Western society. It is among the oldest institutions of human civilization. It is widely recognized that people may own real property and tangible objects. The common law and the criminal law protect private property from interference by others. The Fifth Amendment to the U.S. Constitution protects private property against takings by the government without just compensation. The philosophical bases for protection of private property are well entrenched in our culture: Private property results when labor is applied to nature, as an incentive for discovery, as an essential part of personhood, and as a foundation for an ordered economic system.

Ideas, by definition, are less tangible. They exist in the mind and work of humans. Legal protection for intellectual work evolved much later in the development of human society than did protection for tangible property. The protection of such “intellectual property” raises complex philosophical questions. Should the first person to discover a way of performing an important task—for example, a procedure for closing a wound—be entitled to prevent others from using this procedure? Should the first person to pen a phrase or hum a melody be entitled to prevent others from copying such words or singing the song? Should such “intellectual property rights” be more limited than traditional property rights (i.e., the fee simple)? This book explores the legal institutions and rules that have developed to protect intellectual property.

This chapter has two principal purposes. It first explores the principal philosophical foundations for the protection of intellectual property. Understanding the reasons why we protect intellectual property—and how those reasons differ from

the justifications for real property—will help the reader grasp the details of the many legal rules that will follow in this book. The second section provides a comparative overview of the principal modes of intellectual property protection: patent, copyright, trademark/trade dress, and trade secret. Understanding the intellectual property landscape requires thinking about each form of intellectual property not just in isolation but as it interacts with all the others. The remainder of this book will explore these areas in detail, highlighting their logic and interplay in promoting progress in technology and the arts.

A. PHILOSOPHICAL PERSPECTIVES

All justifications for intellectual property protection, whether economic or moral, must contend with a fundamental difference between ideas and tangible property. Tangible property, whether land or chattels, is composed of atoms, physical things that can occupy only one place at any given time. This means that possession of a physical thing is necessarily “exclusive”—if I have it, you don’t. Indeed, the core of the Western concept of property lies in the right granted to the “owner” of a thing or a piece of land to exclude others from certain uses of it. Settled ownership rights in land and goods are thought to prevent both disputes over who can use the property for what purpose, and the overuse of property that would result if everyone had common access to it.

Ideas, though, do not have this characteristic of excludability. If I know a particular piece of information, and I tell it to you, you have not deprived me of it. Rather, we both possess it. The fact that the possession and use of ideas is largely “nonrivalrous” is critical to intellectual property theory because it means that the traditional economic justification for tangible property does not fit intellectual property. In the state of nature, there is no danger of overusing or overdistributing an idea, and no danger of fighting over who gets to use it. Everyone can use the idea without diminishing its value. *See generally* Peter S. Menell & Suzanne Scotchmer, *Intellectual Property Law*, in 2 HANDBOOK OF LAW AND ECONOMICS 1474 (A. Mitchell Polinsky & Steven Shavell eds., 2007).

Theorists have therefore turned elsewhere to justify exclusive rights in ideas. Over the course of human history, numerous theories have been put forth to explain intellectual property protection. The principal basis for such protection in the United States is the utilitarian or economic incentive framework. Nonetheless, other theories—most notably the natural rights and personhood justifications—have been important in understanding the development and scope of intellectual property law, both here and abroad. The two excerpts that follow justify tangible property. Consider how well they apply to intangible ideas.

1. The Natural Rights Perspective

JOHN LOCKE

TWO TREATISES ON GOVERNMENT

Third Edition, 1698

Though the earth and all inferior creatures be common to all men, yet every man has a “property” in his own “person.” This nobody has any right to but himself. The “labour” of his body and the “work” of his hands, we may say, are properly his. Whatsoever, then, he removes out of the state that Nature hath provided and left it in, he hath mixed his labor with it, and joined to it something that is his own, and thereby makes it his property. It being by him removed from the common state Nature placed it in, it hath by this labour something annexed to it that excludes the common right of other men. For this “labour” being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, at least where there is enough, and as good left in common for others.

He that is nourished by the acorns he picked up under an oak, or the apples he gathered from the trees in the wood, has certainly appropriated them to himself. . . . That labour put a distinction between them and common. . . . And will any one say he had no right to those acorns or apples he thus appropriated because he had not the consent of all mankind to make them his? Was it a robbery thus to assume to himself what belonged to all in common? If such a consent as that was necessary, man had starved, notwithstanding the plenty God had given him. We see in commons, which remain so by compact, that it is the taking any part of what is common, and removing it out of the state Nature leaves it in, which begins the property, without which the common is of no use. And the taking of this or that part does not depend on the express consent of all the commoners. . . .

It will, perhaps, be objected to this, that if gathering the acorns or other fruits, of the earth, etc., makes a right to them, then any one may engross as much as he will. To which I answer, Not so. The same law of Nature that does by this means give us property, does also bound that property too. . . . As much as any one can make use of to any advantage of life before it spoils, so much he may by his labor fix his property in. Whatever is beyond this is more than his share, and belongs to others. . . .

As much land as a man tills, plants, improves, cultivates, and can use the product of, so much is his property. He by his labor does, as it were, enclose it from the common. . . . Nor was this appropriation of any parcel of land, by improving it, any prejudice to any other man, since there was still enough and as good left, and more than the yet unprovided could use. So that, in effect, there was never the less left for others because of his enclosure for himself. For he that leaves as much as another can make use of does as good as take nothing at all.

COMMENTS AND QUESTIONS

1. How do Locke's theories of real property apply to intellectual property? Should we treat the two as the same for ownership purposes? What would Locke say about the exclusive rights granted by the patent laws, to prevent others from using the claimed invention for up to 20 years, whether or not they discovered the invention on their own? Surely if Locke considered the working of land and raw materials to be "labor" that justified ownership of the resulting product, he would have considered labor toward the creation of a new *idea*—the "sweat of the brow"—to be equally deserving of protection. Or do the differences between real and intellectual property mean that Locke's arguments shouldn't apply to intellectual property?

For illumination on these and related points, see Edwin C. Hettinger, *Justifying Intellectual Property*, 18 PHIL. & PUB. AFF. 31 (1989). Hettinger critiques the major theories of intellectual property rights. As to Lockean labor theory, Hettinger makes these useful observations:

- [A]ssuming that labor's fruits are valuable, and that laboring gives the laborer a property right in this value, this would entitle the laborer only to the value she added, and not to the *total* value of the resulting product. Though exceedingly difficult to measure, these two components of value (that attributable to the object labored on and that attributable to the labor) need to be distinguished. [p. 37]
- Property rights in the thing produced are...not a fitting reward if the value of these rights is disproportional to the effort expended by the laborer. "Effort" includes (1) how hard someone tries to achieve a result, (2) the amount of risk voluntarily incurred in seeking this result, and (3) the degree to which moral considerations played a role in choosing the result intended. The harder one tries, the more one is willing to sacrifice, and the worthier the goal, the greater are one's deserts. [pp. 41-42]

The philosopher Robert Nozick made the first point by means of *reductio ad absurdum*: he asks whether the owner of a can of tomato juice who dumps it into the ocean can thereafter claim ownership of all the high seas. See ROBERT NOZICK, *ANARCHY, STATE AND UTOPIA* 175 (1984).

2. An application of the Lockean approach with an especially detailed consideration of the Lockean "proviso" (i.e., that "as much and as good" be left for others after appropriation) can be found in Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L.J. 1533 (1993). The proviso poses a problem we will see throughout the course: how to delimit the rights of a creator in the face of claims by consumers and other members of the public at large.

More particularly, Gordon challenges the extreme view taken by some commentators that a creator's rights should be absolute. The absolutist view proceeds

from the idea that since the creator is solely responsible for the creation, no one is harmed if the creation is withheld from the public entirely. And since the creator can withhold it entirely, he or she can naturally restrict its availability in any manner, including a high price or conditions on its purchase. See, e.g., JOHN STUART MILL, *PRINCIPLES OF POLITICAL ECONOMY* 142 (1872); Steven N.S. Cheung, *Property Rights and Invention*, in 8 *RESEARCH IN LAW AND ECONOMICS: THE ECONOMICS OF PATENTS AND COPYRIGHTS* 5, 6 (John Palmer & Richard O. Zerbe, Jr. eds., 1986). Through the examination of various examples—such as the Church of Scientology’s efforts to restrain books critical of its teachings, West Publishing’s suit to enjoin Lexis from offering page numbers corresponding to West’s case reports, and Disney’s efforts to prevent bawdy parodies of its images that ridicule sanitized popular culture—Gordon suggests that, sometimes at least, the public can be worse off if a creation is offered and then limited in its use than it would have been had the creation never been made.

Should it matter whether Locke’s hypothetical creator was the only one likely to come up with his particular invention or discovery? If others would have discovered the same phenomenon a few years (or a few weeks) later, does Locke’s argument for property rights lose its force? We might distinguish between a Lockean theory of copyright, which prevents copying, and an effort to justify patent law, which precludes even independent invention and therefore restricts the labor of others.

For detailed discussions of the “Lockean proviso,” see Jeremy Waldron, *Enough and as Good Left for Others*, 29 *PHIL. Q.* 319 (1979); ROBERT NOZICK, *ANARCHY, STATE AND UTOPIA* 175-82 (1984); DAVID GAUTHIER, *MORALS BY AGREEMENT* 190-232 (1986). For more detailed treatment of another problem addressed by Gordon—the follow-on creator who builds on a preexisting work—see Lawrence C. Becker, *Deserving to Own Intellectual Property*, 68 *CHI.-KENT L. REV.* 609 (1993). For insightful historical analysis of Locke’s theory and its application to intellectual property, see Justin Hughes, *Copyright and Incomplete Historiographies: Of Piracy, Propertization, and Thomas Jefferson*, 79 *S. CAL. L. REV.* 993 (2006). If labor or effort is the key to property claims under Locke, how should we handle situations where numerous dispersed people accumulate their labor to produce something useful? See Robert P. Merges, *Locke for the Masses*, 36 *HOFSTRA L. REV.* 1179 (2008).

3. Nozick’s *ANARCHY, STATE AND UTOPIA* offers a different philosophical perspective on intellectual property, one rooted in the libertarian tradition. It is not clear how libertarians should think of intellectual property rights. On the one hand, ownership of property seems necessary to the market exchange that is at the heart of the libertarian model of society. On the other hand, one might view the free flow of information unfettered by property rights as the norm, and view government-enforced intellectual property rights as an unnecessary aberration. For a libertarian approach

that is decidedly hostile to intellectual property, *see* John Perry Barlow, *The Economy of Ideas*, 2.03 WIRED 84 (Mar. 1994).

4. Natural rights are strongly emphasized in the continental European justifications for intellectual property. Those justifications to some extent parallel Locke's arguments, but there are important differences. Continental scholars emphasize the importance of reputation and noneconomic aspects of intellectual property, factors that lead them to support moral rights in copyright law. Professor Alfred Yen presents a thorough account of the role of natural rights in American copyright law. *See* Alfred Yen, *Restoring the Natural Law: Copyright as Labor and Possession*, 51 OHIO ST. L.J. 517 (1990). For a detailed comparison of efficiency, natural rights, and other foundational theories of intellectual property law, *see* ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY (2011).

PROBLEM

Problem I-1. You are a botanist exploring a remote region of a small tropical country. You stumble across a field of strange flowers that you have never encountered before. The tribespeople tell you that they use the flower to heal various ailments by rubbing its petals on the skin and chanting a healing prayer. You pluck one of the flowers and when you return to your campsite that night, you show it to a fellow explorer who is an expert in biochemistry. The biochemist smells the flower and says that it is vaguely reminiscent of Substance P. Substance P is a medicine widely used to treat a variety of serious diseases. She tells you that Substance P is easy to detect: It turns bright yellow when exposed to intense heat. That evening, you put the flower over the campfire and, sure enough, it turns bright yellow. When you return home, you work for months to isolate the active ingredient in the flower. It is not Substance P, but a close structural analog. In chemical experiments, the extract shows great promise for fighting many of the diseases that Substance P can treat without Substance P's dreaded side effects.

What rights, if any, should you have in this discovery and research? Should those rights prevent anyone else from going back to the tropical country, finding the flower, and isolating the chemical you have discovered?

You make a profit selling your medicine throughout the world, including to the native tribespeople of the tropical country. John, a chemist in your company, is angered by this policy. Your formula is a carefully guarded secret, but John publishes it in THE NEW ENGLAND JOURNAL OF MEDICINE. A nonprofit organization begins producing the medicine and selling your product to the native tribespeople at a discount. The organization advertises that it is selling your medicine for pennies a year. Should you be able to stop them from selling your medicine? Should you be able to stop them from using the name of your medicine in their ads?

You have named your medicine “Tropicurical.” To advertise the product, one of the employees in your advertising department writes a song based on the very distinctive sounds of the wind in the inland coves of the country mixed with the native birds’ calls. The tribespeople of the tropical country have a song that sounds remarkably similar to your advertising tune. The song is important to their tribal identity, and they argue that it is inappropriate to use their distinctive tribal song to commercialize your product. They ask you to stop using it. Should they be able to stop you from using the name or song?

When you refuse to stop using the Tropicurical song to advertise your product, the tribespeople write a new version of their song entitled “Tropicursical” with angry lyrics claiming that your product destroys culture. Should you be able to stop them from singing the song? National Geographic records the tribespeople singing “Tropicursical.” The recording plays as part of the news report on their television show. It is also available for download on NATIONAL GEOGRAPHIC’s website. Individuals download copies of the song and e-mail it to their friends. It spreads like wildfire over the Internet, and eventually popular radio stations play it over the air. Should you be able to stop these copies and performances?

2. The Personhood Perspective

Margaret Jane Radin

Property and Personhood

34 Stanford Law Review 957 (1982)

This article explores the relationship between property and personhood, a relationship that has commonly been both ignored and taken for granted in legal thought. The premise underlying the personhood perspective is that to achieve proper self-development—to be *a person*—an individual needs some control over resources in the external environment. The necessary assurances of control take the form of property rights. Although explicit elaboration of this perspective is wanting in modern writing on property, the personhood perspective is often implicit in the connections that courts and commentators find between property and privacy or between property and liberty. In addition to its power to explain certain aspects of existing schemes of property entitlement, the personhood perspective can also serve as an explicit source of values for making moral distinctions in property disputes and hence for either justifying or criticizing current law....

In what follows I shall discuss the personhood perspective as Hegel developed it in *Philosophy of Right*, trace some of its later permutations and entanglements with other perspectives on property, and try to develop a contemporary view useful in the context of the American legal system. . . .

I. Property for Personhood: An Intuitive View

Most people possess certain objects they feel are almost part of themselves. These objects are closely bound up with personhood because they are part of the way we constitute ourselves as continuing personal entities in the world. They may be as different as people are different, but some common examples might be a wedding ring, a portrait, an heirloom, or a house.

One may gauge the strength or significance of someone's relationship with an object by the kind of pain that would be occasioned by its loss. On this view, an object is closely related to one's personhood if its loss causes pain that cannot be relieved by the object's replacement. If so, that particular object is bound up with the holder. For instance, if a wedding ring is stolen from a jeweler, insurance proceeds can reimburse the jeweler, but if a wedding ring is stolen from a loving wearer, the price of a replacement will not restore the status quo—perhaps no amount of money can do so.

The opposite of holding an object that has become a part of oneself is holding an object that is perfectly replaceable with other goods of equal market value. One holds such an object for purely instrumental reasons. The archetype of such a good is, of course, money, which is almost always held only to buy other things. A dollar is worth no more than what one chooses to buy with it, and one dollar bill is as good as another. Other examples are the wedding ring in the hands of the jeweler, the automobile in the hands of the dealer, the land in the hands of the developer, or the apartment in the hands of the commercial landlord. I shall call these theoretical opposites—property that is bound up with a person and property that is held purely instrumentally—personal property and fungible property respectively....

III. Hegel, Property, and Personhood

A. Hegel's Philosophy of Right

... Because the person in Hegel's conception is merely an abstract unit of free will or autonomy, it has no concrete existence until that will acts on the external world....

Hegel concludes that the person becomes a real self only by engaging in a property relationship with something external. Such a relationship is the goal of the person. In perhaps the best-known passage from this book, Hegel says:

The person has for its substantive end the right of placing its will in any and every thing, which thing is thereby mine; [and] because that thing has no such end in itself, its destiny and soul take on my will. [This constitutes] mankind's absolute right of appropriation over all things.

Hence, "property is the first embodiment of freedom and so is in itself a substantive end." ...

Hegel seems to make property "private" on the same level as the unit of autonomy that is embodying its will by holding it. He argues that property is private to individuals when discussing it in the context of the autonomous individual will and

that it is essentially common within a family, when discussing it in the context of the autonomous family unit. He does not make the leap to state property, however, even though his theory of the state might suggest it. For Hegel, the properly developed state (in contrast to civil society) is an organic moral entity. . . . and individuals within the state are subsumed into its community morality. . . .

B. Hegel and Property for Personhood

[A] theory of personal property can build upon some of Hegel's insights. First, the notion that the will is embodied in things suggests that the entity we know as a person cannot come to exist without both differentiating itself from the physical environment and yet maintaining relationships with portions of that environment. The idea of embodied will, cut loose from Hegel's grand scheme of absolute mind, reminds us that people and things have ongoing relationships which have their own ebb and flow, and that these relationships can be very close to a person's center and sanity. If these relationships justify ownership, or at least contribute to its justification, Hegel's notion that ownership requires continuous embodiment of the will is appealing.

Second, Hegel's incompletely developed notion that property is held by the unit to which one attributes autonomy has powerful implications for the concept of group development and group rights. Hegel thought that freedom (rational self-determination) was only possible in the context of a group (the properly organized and fully developed state). Without accepting this role for the state, one may still conclude that in a given social context certain groups are likely to be constitutive of their members in the sense that the members find self-determination only within the groups. This might have political consequences for claims of the group on certain resources of the external world (i.e., property).

Third, there may be an echo of Hegel's notion of an objective community morality in the intuition that certain kinds of property relationships can be presumed to bear close bonds to personhood. If property in one's body is not too close to personhood to be considered property at all, then it is the clearest case of property for personhood. The property/privacy nexus of the home is also a relatively clear case in our particular history and culture. . . .

[T]he personhood theory helps us understand the nature of the right dictating that discrete units [i.e., an undivided, individual asset] ought to be protected.

An argument that discrete units are more important than total assets takes the following form. A person cannot be fully a person without a sense of continuity of self over time. To maintain that sense of continuity over time and to exercise one's liberty or autonomy, one must have an ongoing relationship with the external environment, consisting of both "things" and other people. One perceives the ongoing relationship to the environment as a set of individual relationships, corresponding to the way our perception separates the world into distinct "things." Some things must remain stationary if anything is to move; some points of reference

must be constant or thought and action is not possible. In order to lead a normal life, there must be some continuity in relating to “things.” One’s expectations crystallize around certain “things,” the loss of which causes more disruption and disorientation than does a simple decrease in aggregate wealth. For example, if someone returns home to find her sofa has disappeared, that is more disorienting than to discover that her house has decreased in market value by 5%. If, by magic, her white sofa were instantly replaced by a blue one of equal market value, it would cause no loss in net worth but would still cause some disruption in her life.

This argument assumes that all discrete units one owns and perceives as part of her continuing environment are to some degree personal. If the white sofa were totally fungible, then magically replacing it with a blue one would cause no disruption. In fact, neither would replacing it with money. . . .

But the theory of personal property suggests that not all object-loss is equally important. Some objects may approach the fungible end of the continuum so that the justification for protecting them as specially related to persons disappears. They might just as well be treated by whatever general moral rules govern wealth-loss at the hands of the government. If the moral rules governing wealth-loss correspond to Michelman’s utilitarian suggestion—government may take whatever wealth is necessary to generate higher welfare in which the individual can confidently expect to share—then the government could take some fungible items without compensation. In general, the moral inquiry for whether fungible property could be taken would be the same as the moral inquiry for whether it is fair to impose a tax on this particular person.

On the other hand, a few objects may be so close to the personal end of the continuum that no compensation could be “just.” That is, hypothetically, if some object were so bound up with me that I would cease to be “myself” if it were taken, then a government that must respect persons ought not to take it. If my kidney may be called my property, it is not property subject to condemnation for the general public welfare. Hence, in the context of a legal system, one might expect to find the characteristic use of standards of review and burdens of proof designed to shift risk of error away from protected interests in personal property. For instance, if there were reason to suspect that some object were close to the personal end of the continuum, there might be a *prima facie* case against taking it. That *prima facie* case might be rebutted if the government could show that the object is not personal, or perhaps that the object is not “too” personal compared with the importance to the government of acquiring that particular object for social purposes.

COMMENTS AND QUESTIONS

1. How well does Professor Radin’s theory of real property apply to intellectual property? Can an individual be so “bound up” in their inventions or works of authorship that their loss would occasion more than economic damage? Does it affect

your answer that intellectual property can be used simultaneously by many people without depleting its functional value to anyone—so that an author’s “loss” is not the physical deprivation of stolen chattels, but the less personal fact that someone else has copied her work?

It may be that the investment of “personhood” in intellectual property varies greatly, both with the type of intellectual property at issue and with the time and effort the owner put into developing it. For example, a novel on which one has worked for several years may have more personal value than a massive software program for navigating a jumbo jet or a company’s customer list. Should the law take account of these differences, giving greater protection to more personal works?

For applications of Radin’s “personhood” ideas in the context of intellectual property, see Neil W. Netanel, *Copyright Alienability Restrictions and the Enhancement of Author Autonomy: A Normative Evaluation*, 24 RUTGERS L.J. 347 (1993); Steven Chermansky, Comment, *A Penny for Their Thoughts: Employee-Inventors, Preinvention Assignment Agreements, Property, and Personhood*, 81 CAL. L. REV. 595, 641 (1993). Chermansky argues, using personhood theory and the related idea of market-inalienability, that employee-inventors should retain greater property interests in their inventions than they typically do under conventional employee assignment contracts. On market-inalienability, i.e., things which should not be subject to market exchange at all, see Margaret Jane Radin, *Market-Inalienability*, 100 HARV. L. REV. 1849 (1987). Cf. Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 350-53 (1988) (suggesting various strains of the personhood justification in American copyright law). Professor Roberta Kwall offers a related “moral” basis for legal protection emphasizing the dignity, honor, self-worth, and autonomy of the author. See ROBERTA Kwall, *THE SOUL OF CREATIVITY: FORGING A MORAL RIGHTS LAW FOR THE UNITED STATES* 37 (2009). For more on control over one’s economic situation—i.e., economic autonomy—and its role in contemporary intellectual property debates, see Robert P. Merges, *The Concept of Property in the Digital Era*, 45 HOUS. L. REV. 1239 (2008). For a detailed explication of Hegel’s approach to property, see JEREMY WALDRON, *THE RIGHT TO PRIVATE PROPERTY* (1988).

2. For a critique of Radin’s broader personhood perspective, see Stephen J. Schnably, *Property and Pragmatism: A Critique of Radin’s Theory of Property and Personhood*, 45 STAN. L. REV. 347 (1993) (challenging Radin’s appeal to consensus and arguing that this focus obscures issues of power and the like). For further elaboration and defense of the personhood perspective, see MARGARET JANE RADIN, *REINTERPRETING PROPERTY* (1993) (a collection of related essays); A. JOHN SIMMONS, *THE LOCKEAN THEORY OF RIGHTS* (1992); JEREMY WALDRON, *THE RIGHT TO PRIVATE PROPERTY* (1991) (comparing Lockean and Hegelian property rights theories); Symposium, *Property Rights*, 11 SOC. PHIL. & POL’Y 1-286 (1994).

3. Personhood theories of IP rights tend to focus on the connection between the creator's identity and the thing created. But consumers too may identify with creative works; indeed, Radin's example of the couch suggests that buyers too have an identity interest bound up with the things they own (or, perhaps, read). How should the law take that interest into account? Does it suggest that we need to give broader scope for user-generated content like fan fiction and videos that incorporate literary characters or songs? Or might it suggest the opposite – that consumers have an interest in the purity of their iconic works, free from the unauthorized modification of those works by others? See Justin Hughes, "*Recoding*" *Intellectual Property and Overlooked Audience Interests*, 77 TEX. L. REV. 923 (1999). More recent work has suggested that creators are often motivated as much if not more by attribution and fairness than by the prospect of money. See JESSICA SILBEY, *THE EUREKA MYTH: CREATORS, INVENTORS, AND EVERYDAY INTELLECTUAL PROPERTY* (2014); Jeanne Fromer, *Expressive Incentives in Intellectual Property*, 98 VA. L. REV. 1745 (2012).

4. A radical critique of some bedrock notions implicit in intellectual property—most notably, the concept of "*the author*" herself—has grown up in recent years, fueled by a general deconstructive trend in literary criticism. While not aimed directly at Radin's personhood approach to certain forms of property, these ideas do pose a challenge to the application of Radin's approach in the intellectual property context. They suggest that the concept of authorship is so malleable, contingent, and "socially constructed" that we should be wary about identifying a creative work too closely with a particular author, let alone her personality. In this view, all creations are largely a product of communal forces. Dividing the stream of intellectual discourse into discrete units—each owned by and closely associated with a particular author—is therefore a logically incoherent exercise subject more to the political force of asserted authors' groups than to recognition of inherent claims of "personhood." See, e.g., MARTHA WOODMANSEE & PETER JASZI EDS., *THE CONSTRUCTION OF AUTHORSHIP: TEXTUAL APPROPRIATION IN LAW AND LITERATURE* (1994); Peter Jaszi, *Toward a Theory of Copyright: The Metamorphoses of "Authorship,"* 1991 DUKE L.J. 455; James Boyle, *A Theory of Law and Information: Copyright, Spleens, Blackmail and Insider Trading*, 80 CAL. L. REV. 1413 (1992).

If authorship is an incoherent concept, is there any role at all for copyright law? How can one protect the rights (natural, moral, or economic) of the author, if there is, in fact, no author? Does the literary critique answer the charge that authors will not create in the absence of economic reward? Or is it directed only at personality-based theories of intellectual property?

5. Consider the observations of philosopher Lawrence Becker:

So if property-as-personality [à la Hegel] again turns out to be a dead end, perhaps we should dispense with the search for a deep justification for property rights (from metaphysics, moral psychology, sociobiology, or whatever) and focus on the behavioral surface: the observed, persistent, robust

behavioral connections between various property arrangements and human well-being, broadly conceived. This may provide a foundation for egalitarian arguments that is more secure than speculative metaphysics, and a foundation for private property that is more stable than a pluralistic account of the standard array of bedrock justifications for it.

Lawrence Becker, *Too Much Property*, 21 PHIL. & PUB. AFF. 196, 206 (1992).

3. The Utilitarian/Economic Incentive Perspective

Utilitarian theory and the economic framework built upon it have long provided the dominant paradigm for analyzing and justifying the various forms of intellectual property protection. *See generally* Peter S. Menell & Suzanne Scotchmer, *Intellectual Property Law*, in 2 HANDBOOK OF LAW AND ECONOMICS 1474, 1525 (A. Mitchell Polinsky & Steven Shavell eds., 2007); WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* (2003). For purposes of exploring the economic dimensions of the intellectual property field, it is important to distinguish between two quite distinct functions. The principal objective of much of intellectual property law is the promotion of new and improved works—whether technological or expressive. This purpose encompasses patent, copyright, and trade secret law, as well as several more specialized protection systems (for mask works (semiconductor chip layouts), databases, and designs). Trademark and related bodies of unfair competition law focus primarily on a very different economic problem—ensuring the integrity of the marketplace.

i. Promoting Innovation and Creativity

Both the United States Constitution and judicial decisions emphasize incentive theory in justifying intellectual property. The Constitution expressly conditions the grant of power in the patent and copyright clause on a particular end, namely “to Promote the Progress of Science and useful Arts.” U.S. CONST., ART. I, CL. 8. As the Supreme Court explained in *Mazer v. Stein*, 347 U.S. 201 (1954): The copyright law, like the patent statutes, makes reward to the owner a “secondary consideration.” *United States v. Paramount Pictures*, 334 U.S. 131, 158. However, it is “intended definitely to grant valuable, enforceable rights to authors, publishers, etc., without burdensome requirements: ‘to afford greater encouragement to the production of literary [or artistic] works of lasting benefit to the world.’” *Washington Pub. Co. v. Pearson*, 306 U.S. 30. The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that it is the best way to advance public welfare through the talents of authors and inventors in “Science and useful Arts.” Sacrificial days devoted to such creative activities deserve rewards commensurate with the services rendered.

To understand why the Framers thought exclusive rights in inventions and creations would promote the public welfare, consider what would happen absent any

intellectual property protection. Invention and creation require the investment of resources—the time of an author or inventor, and often expenditures on facilities, prototypes, supplies, etc. In a private market economy, individuals will not invest in invention or creation unless the expected return from doing so exceeds the cost of doing so—that is, unless they can reasonably expect to make a profit from the endeavor. To profit from a new idea or work of authorship, the creator must be able either to sell it to others or to put it to some use that provides her with a comparative advantage in a market, such as by reducing the cost of producing goods.

But ideas (and writings, for that matter) are notoriously hard to control. Even if the idea is one that the creator can use herself, for example, to boost productivity in her business, she will reap a reward from that idea only to the extent that her competitors don't find out about it. A creator who depends on secrecy for value, therefore, lives in constant peril of discovery and disclosure. Competitors may steal the idea or learn of it from an ex-employee. They may be able to figure it out by watching the creator's production process or by examining the products she sells. Finally, they may come upon the idea on their own or discover it in the published literature. In all of these cases, the secrecy value of the idea will be irretrievably lost.

The creator who wants to sell her idea is in an even more difficult position. Selling information requires disclosing it to others. Once the information has been disclosed outside a small group, however, it is extremely difficult to control. Information has the characteristics of what economists call a "public good"—it may be "consumed" by many people without depletion, and it is difficult to identify those who will not pay and prevent them from using the information. See Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 609, 614-16 (Nat'l Bureau of Economic Research ed., 1962). Once the idea of the intermittent windshield wiper is disclosed, others can imitate its design relatively easily. Once a book is published, others can copy it at low cost. It is difficult to exclude nonpurchasers from sharing in the benefits of the idea. Ideas and information can also be used by many without depleting the enjoyment of others. Unlike an ice cream cone, a good story or the concept of intermittent windshield wipers can be enjoyed by many without diminishing enjoyment of these creations by others.¹ If we assume that it is nearly costless to distribute information to others—an assumption that was once unrealistic, but now has become much more reasonable with advances in digital technology (including the Internet)—it will prove virtually impossible to charge for information over the medium run in the absence of effective intellectual property or some other means of protection (such as technological protection

¹ To some extent this statement oversimplifies the problem by ignoring possible second-order distorting effects. In practice, if you taught several hundred million people to fish, the result might be depletion of a physical resource (fish) that would otherwise not have occurred. Similarly, wide dissemination of some information may have particular effects on secondary markets.

measures). If the author of a book charges more than the cost of distribution, hoping to recover some of her expenditures in writing the work, competitors will quickly jump in to offer the book at a lower price. Competition will drive the price of the book toward its marginal cost—in this case, the cost of producing and distributing one additional copy. In such a competitive market, the author will be unable to recoup the fixed cost of writing the book. More to the point, if this holds true generally, authors may be expected to leave the profession in droves, since they cannot make any money at it. The result, according to economic theory, would be an underproduction of books and other works of invention and creation with similar public goods characteristics.

Information is not the only example of a public good. Economists generally offer lighthouses and national defense as examples of public goods, since it is virtually impossible to provide the benefits of either one only to paying clients. It is impossible, for example, to exclude some ships and not others from the benefits of a lighthouse. Furthermore, the use of the lighthouse by one ship does not deplete the value of its hazard warning to others. As a result, it would be inefficient to exclude nonpayers from using the lighthouse's warning system even if we could, since consumption of this good is "nonrivalrous" (meaning that everyone can benefit from it once it is produced). For these reasons, the market will in theory undersupply such goods because producers cannot reap the marginal (incremental) value of their investment in providing them.²

Can you see why broadcast television signals, beautiful gardens on a public street, and national defense are also public goods?

By contrast, markets for pure private goods, such as ice cream cones, feature exclusivity and rivalrous competition—the ice cream vendor provides the good only to those who pay the price, and the consumer certainly depletes the amount of the good available to others. Thus, the market system provides adequate incentives for the creation of ice cream cones: sellers can exact their cost of production, and the value of the product is fully enjoyed by the purchaser.

In the case of national defense (and most lighthouses), we avoid the underproduction that would result from leaving it to the market by having the government step in and pay for the public good. For a variety of good reasons, we have not gone that route with many forms of information. Instead, the government has created intellectual property rights to give authors and inventors control over the use and distribution of their ideas, thereby encouraging them to invest in the production of new ideas and works of authorship. Thus, the economic justification for

² Ronald Coase has offered evidence casting doubt on the economic assumption that lighthouses must be publicly provided. See Ronald H. Coase, *The Lighthouse in Economics*, in *THE FIRM, THE MARKET, AND THE LAW* (1988).

intellectual property lies not in rewarding creators for their labor but in ensuring that they (and other creators) have appropriate incentives to engage in creative activities.

Unfortunately, this approach comes at a cost. Granting authors and inventors the right to exclude others from using their ideas necessarily limits the diffusion of those ideas and so prevents many people from benefiting from them. In economic terms, intellectual property rights prevent competition in the sale of the particular work or invention covered by those rights, and therefore may allow the intellectual property owner to raise the price of that work above the marginal cost of reproducing it. This means that in many cases fewer people will buy the work than if it were distributed on a competitive basis, and they will pay more for the privilege. A fundamental principle of our economic system is the proposition that free market competition will ensure an efficient allocation of resources, absent market failures. In fact, the principal thrust of the antitrust laws serves precisely this goal. In this limited sense, then, intellectual property rights appear to run counter to free market competition: they limit the ability of competitors to copy or otherwise imitate the intellectual efforts of the first person to develop an idea. These rights enable those possessing intellectual property rights to charge monopoly prices or to otherwise limit competition, such as by controlling the use of the intellectual work in subsequent products.

Because intellectual property rights impose social costs on the public, the intellectual property laws can be justified by the public goods argument only to the extent that they do on balance encourage enough creation and dissemination of new works to offset those costs. One of the reasons that intellectual property rights are limited in scope, duration, and effect is to balance these costs and benefits. For example, the limited term of intellectual property rights ensures that inventions will be freely available after that fixed term. The key to economic efficiency lies in balancing the social benefit of providing economic incentives for creation and the social costs of limiting the diffusion of knowledge. We will encounter this critical trade-off throughout our study of intellectual property. The two examples below highlight some of the major issues.

a. Economic Incentive Benefit

Intellectual property protection is necessary to encourage inventors, authors, and artists to invest in the process of creation. Without such protection, others could copy or otherwise imitate the intellectual work without incurring the costs and effort of creation, thereby inhibiting the original creators from reaping a reasonable return on their investment. Consider the following example: After years of effort and substantial expense, Earnest Inventor develops the Mousomatic, a significantly better mousetrap. Not only does it catch mice better than the competition's trap, but it also neatly packages the dead mice in disposable sanitary bags. Consumers are willing to pay substantially more for this product than for its competitors. The Mousomatic

catches the attention of Gizmo Gadget Incorporated. Gizmo copies the basic design of the Mousomatic and offers its version of the Mousomatic at a substantial discount. (Gizmo can still earn a profit at this lower price because it had minimal research and development expense.) To stay in business, Earnest is forced to lower his price. Market competition pushes the price down to the cost of production and distribution. In the end, Earnest is unable to recover his cost of research and development and suffers a loss. Although he has numerous other interesting ideas, he decides that they are not worth pursuing because Gizmo, or some other company, will simply copy them if they turn out well.

The existence of intellectual property rights encourages Earnest and other inventors to pursue their creative efforts. If Earnest can obtain the right to prevent others from copying his inventions, then he stands a much better chance to reap a profit. Hence, he will be much more inclined to make the initial investment in research and development. In the end, not only will Earnest be wealthier, but the public will be enriched by the new and better products brought forth by intellectual property protection.

b. Costs of Limiting Diffusion

Legal protection for ideas and their expression prevents others from using those works to develop similar works that build upon them. Knowledge in society is cumulative. In the words of Sir Isaac Newton, “If I have seen further [than others], it is by standing on the shoulders of giants.” Hence, society at large can be harmed by intellectual property protection to the extent that it unnecessarily raises the cost of acquiring a product (through monopoly pricing by the right holder) and limits others from making further advances. Consider the following scenario: Professor Lee conducts research on drug treatments at University College. Grants from the federal government generously fund her laboratory. For the past decade, Professor Lee has competed with colleagues at other laboratories to discover the cure for a prevalent form of cancer. It is likely that the first person to discover the cure will win a Nobel prize, as well as numerous other financial and professional rewards. In early 1995, Professor Lee hits upon the Alpha drug, which cures the disease. She files for and receives a patent. Professor Hu, a researcher at another research institution, independently discovers the identical cure a few months later. With patent in hand, Professor Lee starts a company to sell Alpha and charges a price 100 times the cost of production. Because Alpha is a life-saving cure, those stricken with the disease who can afford the treatment are more than willing to pay the price. Then, to relieve the suffering of millions, Professor Hu begins selling Alpha at the cost of production. Moreover, she has developed an improvement on the Alpha drug, Alpha+, that reduces the side effects of the treatment. Professor Lee quickly obtains an injunction preventing Hu from selling either version of Alpha for the life of the patent.

This example raises serious questions about whether intellectual property protection is desirable, at least for this class of invention. Professor Lee does not bear significant risk in pursuing the invention because the government and university generously fund her research. Furthermore, the potential for a Nobel prize, expanded research funding, and professional recognition provide substantial encouragement for Professor Lee to pursue a cure whether or not she gains financially from sales of Alpha. Moreover, other researchers were poised to make the same discovery at about the time that Professor Lee made her discovery. Yet she has the right not only to block sales of Alpha by competitors, but also to block sales of improvements such as Alpha+. Does such a system benefit society? One must also consider that without the financial incentive of a patent, there would perhaps have been less competition to discover and market any cure for cancer. Problems such as this one have led some scholars to question the economic efficiency of the patent system in particular circumstances. See F. M. SCHERER, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 445-55 (2d ed. 1980).

Similar problems can arise in the copyright domain. In 1936, Margaret Mitchell published her epic novel *GONE WITH THE WIND*. The plot revolves around Scarlett O'Hara, a hard-working and ambitious Southern woman who lives through the American Civil War and Reconstruction. *GONE WITH THE WIND* quickly became one of the most popular books ever written, eventually selling more than 28 million copies throughout the world. Ms. Mitchell would receive a Pulitzer Prize, and the novel would become the basis for one of the most successful movies ever.

Sixty-five years later, Alice Randall, an African-American historian, set out to tell the history of the Civil War-era South from another viewpoint. She invented the character of Cynara, a mulatto slave on Scarlett's plantation who also happened to be Scarlett's half-sister. Although Mitchell's novel did not depict a character named Cynara, many other characters in Randall's novel mimic characters in the original. Randall's *THE WIND DONE GONE* depicts the mistreatment and suffering of slaves in their vernacular dialect. Randall believed that *GONE WITH THE WIND*, as the lens through which millions viewed the deep South during the Civil War era, provided a unique vehicle for communicating the racial injustice of American history. Margaret Mitchell's estate sued Randall for copying *GONE WITH THE WIND* without authorization, obtaining a preliminary injunction. Although Randall eventually prevailed on appeal under the fair use doctrine, *Suntrust Bank v. Houghton Mifflin Co.*, 268 F.3d 1257 (11th Cir. 2001), this controversy illustrates how strong copyright protection can potentially inhibit cumulative creativity.

In applying a utilitarian framework, the economic incentive benefits of intellectual property rights must be balanced against the costs of limiting diffusion of knowledge. A critical issue in assessing the need for intellectual property protection is

whether innovators have sufficient means to appropriate an adequate return on investment in research and development. In this regard, the market itself often provides means by which inventors can realize sufficient rewards to pursue innovation without formal intellectual property rights beyond contract law. The first to introduce a product can in many contexts earn substantial and long-lived advantages in the market. In many markets, the costs or time required to imitate a product (for example, to reverse engineer a complex machine) are so great that the first to market a product has substantial opportunity for profit. Moreover, as we will see in Chapter II, inventors can often prevent imitation through contractual means, such as trade secrecy and licensing agreements with customers. Where the invention relates to a manufacturing process, the innovator may be able to maintain protection through secrecy even after the product is on the market. Alternatively, a producer may be able to bundle products with essential services and contracts for updates of the product. In addition, the producer may be able to spread the costs of research and development among a group of firms through research joint ventures.

In those areas in which economic incentives for innovation are inadequate, and the creation of intellectual property rights is the most efficacious way of encouraging progress, society must determine the appropriate requirements for, duration and scope of, and set of rights afforded intellectual property. Over the past several decades, economists have developed and refined models to assess the appropriate trade-off between the social benefits of providing economic incentives for innovation through intellectual property rights and the social costs of limiting diffusion of knowledge. Professor William Nordhaus developed the first formal model analyzing the optimal duration of intellectual property. His model of the innovative process assumed that investments in research produced a single independent innovation. WILLIAM NORDHAUS, *INVENTION, GROWTH, AND WELFARE: A THEORETICAL TREATMENT OF TECHNOLOGICAL CHANGE* 3-7 (1969). The principal policy implication of this model is that the term of intellectual property protection should be calibrated to balance the incentive benefits of protection against the deadweight loss of monopoly pricing and the resulting limitations on dissemination.

Since Nordhaus's important early work, economic historians and economic theorists have greatly enriched our understanding of the innovative process and the implications for public policy. Historical and industry studies of the innovation process find that inventions are highly interdependent: "Technologies . . . undergo a gradual, evolutionary development which is intimately bound up with the course of their diffusion." Paul David, *New Technology, Diffusion, Public Policy, and Industrial Competitiveness* 20 (Center for Economic Policy Research, Pub. No. 46, Apr. 1985). In fact, "secondary inventions"—including essential design improvements, refinements, and adaptations to a variety of uses—are often as crucial to the generation of social benefits as the initial discovery. See, e.g., J.L. Enos, *A Measure of the Rate of Technological Progress in the Petroleum Refining Industry*, 6

J. INDUS. ECON. 180, 189 (1958); James Mak & Gary Walton, *Steamboats and the Great Productivity Surge in River Transportation*, 32 J. ECON. HIST. 619, 625 (1972). Economic theorists have more recently developed models of the innovative process incorporating concepts of rivalrous and cumulative innovation, see Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 J. ECON. PERSPECTIVES 29 (1991); Robert P. Merges & Richard Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839 (1990); Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329 (1987), uncovering a range of important effects. Most notably, excessive protection for first-generation innovation can impede later innovations if licensing is costly. More generally, these models cast doubt on the notion that society can perfectly calibrate intellectual property rewards for each innovation.

As is increasingly evident, the range of innovative activity and creative expression in our society is vast and ever changing. As the materials in this book will highlight, the intellectual property institutions and rules that have evolved to promote technology and the arts are intricate. It will be the challenge of future generations of policymakers, judges, and lawyers to refine the ability of the intellectual property system to enhance the public welfare.

COMMENTS AND QUESTIONS

1. One significant difference between the natural rights perspective and the utilitarian perspective relates to who is entitled to the fruits of productive labor. In the natural rights framework, the inventor or author is entitled to all the social benefits produced by his or her efforts. In the utilitarian framework, reward to the inventor or author is a secondary consideration; the principal objective is to enrich the public at large. Which view is more compelling? Consider in this regard the optimal division of benefits from the invention of Alpha among Professor Lee, Professor Hu, and the public at large. Is Professor Lee entitled to all or even a lion's share of the benefits?

2. In 1966, the REPORT OF THE PRESIDENT'S COMMISSION ON THE PATENT SYSTEM identified four major economic justifications for the patent laws. First, a patent system provides an incentive to invent by offering the possibility of reward to the inventor and to those who support him. This prospect encourages the expenditure of time and private risk capital in research and development efforts. Second, and complementary to the first, a patent system stimulates the investment of additional capital needed for the further development and marketing of the invention. In return, the patent owner is given the right, for a limited period, to exclude others from making, using, or selling the invented product or process. Third, by affording protection, a patent system encourages early public disclosure of technological information, some of which might otherwise be kept secret. Early disclosure reduces the likelihood of duplication of effort by others and provides a basis for further advances in the technology involved. Fourth, a patent system promotes the beneficial

exchange of products, services, and technological information across national boundaries by providing protection for industrial property of foreign nationals.

While directed specifically at the patent system, many of these arguments have application to all forms of intellectual property.

Are these incentives necessary to invention and creation? Using cost and other data from publishing companies, Professor (now Justice) Stephen Breyer contended that lead time advantages and the threat of retaliation reduce the cost advantages of copiers, thus obviating if not eliminating the need for copyright protection for books. *See* Stephen Breyer, *The Uneasy Case for Copyright: A Study in Copyright of Books, Photocopies and Computer Programs*, 84 HARV. L. REV. 281 (1970). *Cf.* Barry W. Tyerman, *The Economic Rationale for Copyright Protection for Published Books: A Reply to Professor Breyer*, 18 UCLA L. REV. 1100 (1971); Stephen Breyer, *Copyright: A Rejoinder*, 20 UCLA L. REV. 75 (1972). This debate took place decades ago. Have advances in technology strengthened or weakened Breyer's argument?

3. *Intellectual Property as Property*. It is tempting to view intellectual property through a tangible property lens. *See* Richard Epstein, *The Disintegration of Intellectual Property? A Classical Liberal Response to a Premature Obituary*, 62 STAN. L. REV. 455 (2010). After all, intellectual property draws on tangible property concepts of first-in-time, exclusivity, and transferability, and scholars have explored the philosophy of tangible property rules and institutions for centuries. However, simplistic Blackstonian conceptions of land and other tangible resources miss a lot of the most important economic and social concerns relating to protecting intangible resources. *See* Peter S. Menell, *Governance of Intellectual Resources and Disintegration of Intellectual Property in the Digital Age*, 26 BERKELEY TECH. L.J. 1523 (2011); Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031 (2005). Nonetheless, tangible property law and institutions dealing with more complex resources (such as water, wild animals, oil and natural gas) and circumstances (control of the dead hand, shared use of resources) offer valuable insights into the design of intellectual property rules and institutions. *Cf.* Molly Van Houweling, *Intellectual Property as Property*, in RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW (Peter S. Menell & Ben Depoorter eds., forthcoming 2016)

4. *Comparative Institutional Analysis*. Numerous institutional mechanisms exist for addressing the public goods problem inherent in the production of ideas and information—direct government funding of research, government research subsidies, promotion of joint ventures, and prizes. The case for intellectual property rights ideally compares all of these options. Intellectual property rights have the advantage of limiting the government's role in allocating resources to a finite set of decentralized decisions: whether particular inventions are worthy of a fixed period of protection. The market then serves as the principal engine of progress. Decentralized consumers generate demand for products and competing decentralized sellers produce

them. By contrast, most other incentive systems, especially large-scale research funding, require central planning on a mass scale. Most economists place more confidence in the former means of allocating resources. The case for intellectual property rights, then, is based more on a generalized perception of institutional choice than on strong direct evidence of the superiority of intellectual property rights relative to the alternatives.

5. *The Open Source Movement.* The emergence of cooperative working environments for the development of software has raised questions about the core precept underlying the utilitarian/economic perspective: that exclusive property rights represent the most effective means for promoting creative enterprise. *See generally* STEVEN WEBER, *THE SUCCESS OF OPEN SOURCE* (2004); Yochai Benkler, *Coase's Penguin, or Linux and the Nature of the Firm*, 112 YALE L.J. 369 (2002); David McGowan, *The Legal Implications of Open Source Software*, 2001 U. ILL. L. REV. 241. Open source software traces its origins to the early 1970s and the culture of collaborative research on computer software that existed in many software research environments. To perpetuate that model in the face of increasingly proprietary software, Richard Stallman, a former researcher in MIT's Artificial Intelligence Laboratory, established the Free Software Foundation (FSF) to promote users' rights to use, study, copy, modify, and redistribute computer programs. Such rights obviously conflict with the default bundle of rights of copyright law. For that reason, FSF developed the GNU General Public License (GPL), a complex licensing agreement designed to prevent programmers from building proprietary limitations into "free" software. Stallman set forth a task list for the development of a viable UNIX-compatible open source operating system. Many programmers from throughout the world contributed to this effort on a voluntary basis, and by the late 1980s most of the components had been assembled. The project gained substantial momentum in 1991 when Linus Torvalds developed a UNIX-compatible kernel, which he called "Linux." Torvalds structured the evolution of his component on the GNU GPL "open source" model. The integration of the GNU and Linux components resulted in a UNIX-compatible open source program (referred to as GNU/Linux) and has since become widely used throughout the computing world. In the process, it has spawned a large community of computer programmers and service organizations committed to the principles of open source development. The growth and success of Linux has brought the open source movement into the mainstream computer software industry. Today, a variety of vendors, such as Red Hat, Caldera, and Ubuntu, distribute open source software, and it has tens of millions of users worldwide. Does this experience refute the logic underlying the property rights paradigm or merely broaden the range of viable governance structures?

6. Drawing upon Thomas Jefferson's natural rights insight that "ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition, seems to have been peculiarly and

benevolently designed by nature,” ANDREW A. LIPSCOMB & ALBERT ELLERY BERGH EDS., *THE WRITINGS OF THOMAS JEFFERSON*, vol. 13: 333-35 (Writings (document 12): letter from Thomas Jefferson to Isaac McPherson, 13 Aug. 1813) (1905), John Perry Barlow’s essay “The Economy of Ideas” has emerged as a manifesto for a new libertarianism that resists intellectual property protection in cyberspace. John Perry Barlow, *The Economy of Ideas*, 2.03 WIRED 84 (Mar. 1994). Barlow questions whether a right of property can or should exist in a medium (digital networks) lacking physical structure or any significant cost of distribution. This approach resonates with many in the computer hacker community who believe that “information wants to be free.” Professor Lawrence Lessig explores and expands upon this perspective in his books *FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY* (2004) and *THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD* (2001), although his focus is not on eliminating intellectual property but on preserving spaces free of such property. For historical analysis of Jefferson’s thinking and its application to intellectual property, see Adam Mossoff, *Who Cares What Thomas Jefferson Thought About Patents? Reevaluating the Patent Privilege in Historical Context*, 92 CORNELL L. REV. 953 (2007); Justin Hughes, *Copyright and Incomplete Historiographies—of Piracy, Propertization, and Thomas Jefferson*, 79 S. CAL. L. REV. 993 (2006).

What is likely to happen if we abolish the concept of ownership of information on the Internet? In general? Consider the implications for particular works of authorship: musical compositions, sound recordings, software, movies, databases. Will people stop producing these works? Or will other types of incentives and appropriation mechanisms (e.g., encryption, secrecy) continue to encourage invention and creativity? What are the advantages and disadvantages of these alternative mechanisms? For a controversial argument that we don’t need IP at all, see MICHELE BOLDRIN & DAVID LEVINE, *AGAINST INTELLECTUAL MONOPOLY* (2007).

ii. Ensuring Integrity of the Marketplace

Unlike patent and copyright, trademark law does not protect innovation or creativity directly. Rather, it aims to protect the integrity of the marketplace by prohibiting the use of marks associated with particular manufacturers in ways that would cause confusion as to the sources of the goods. In so doing, trademark law reduces consumer confusion and enhances incentives for firms to invest in activities (including R&D) that improve brand reputation. This function, however, is part of a larger framework of laws and institutions that regulate the quality of information in the marketplace. See generally Peter S. Menell & Suzanne Scotchmer, *Intellectual Property Law*, in 2 HANDBOOK OF LAW AND ECONOMICS 1474, 1536-56 (A. Mitchell Polinsky & Steven Shavell eds., 2007)

The efficiency of the marketplace depends critically upon the quality of information available to consumers. In markets in which the quality of goods is

uniform or easily inspected at the time of purchase, consumers can determine the attributes themselves and no information problem arises. In many markets, however—such as used automobiles, computers, watches, as well as designer handbags—an information asymmetry exists: sellers typically have better information about their products or services than buyers can uncover without buying the product. See George A. Akerlof, *The Market for “Lemons”: Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970). Unscrupulous sellers will be tempted to make false or misleading product claims or copy the trademark of a rival producer known for superior quality. It is often easier to copy a trademark than to duplicate production techniques, quality assurance programs, and the like. For example, two watches that look the same on the outside may have very different mechanical features, manufacturing quality, and composition of materials used.

Proliferation of unreliable information in the marketplace increases consumers' costs of search and distorts the provision of goods. Consumers will have to spend more time and effort inspecting goods, researching the product market, and testing products. Manufacturers will have less incentive to produce quality goods as others will be able to free-ride on such reputations. In markets for products where quality is costly to observe, high-quality manufacturers might not be able to survive without effective mechanisms for policing the source of products and the accuracy of claims relating to unobservable product characteristics.

Trademarks, as concise and unequivocal indicators of the source (e.g., Intel) and nature (e.g., Pentium) of particular goods, counteract the “market for lemons” problem by communicating to consumers the enterprise responsible for the goods and, in some cases, the specifications of the goods. The brand name Coca-Cola, for example, informs the consumer of the maker of the soft drink beverage as well as the taste that they can expect. If the product meets or exceeds expectations, then the trademark owner gains a loyal customer who will be willing to pay a premium in future transactions; if the product disappoints, then the trademark owner will have more difficulty making future sales to that consumer (or will have to offer a discount to attract their business). In this way, trademarks implicitly communicate unobservable characteristics about the quality of branded products, thereby fostering incentives for firms to invest in product quality, even when such attributes are not directly observable prior to a purchasing decision. Sellers who enter the high-quality segment of the market must initially invest in building a strong reputation. Only after consumers become acquainted with the attributes of their brand can they recoup these costs. As this process unfolds, high-quality items can sell for a premium above their costs of production, since consumers will expect them to be of high quality. Trademarks also facilitate efficient new business models, such as franchising, which generate economies of scale and scope in marketing and facilitate rapid business diffusion across vast geographic areas.

The marking of products also creates incentives for disreputable sellers to pass off their own wares as the goods of better-respected manufacturers. Trademark law (as well as false advertising and unfair competition laws more generally) harnesses the incentives of sellers in the marketplace to police the use of marks and advertising claims of competitors. Sellers often have the best information about the quality of products in the marketplace; they also have a direct stake in preventing competitors from free-riding on their brand, reputation, and consumer loyalty. By creating private causes of action, trademark and false advertising law take advantage of this informational base and incentive structure as well as the vast, decentralized enforcement resources of trademark owners to regulate the informational marketplace, effectively in the name of consumers.

As with patent and copyright law, the creation of intellectual property rights in words, phrases, logos, and other identifying product features can entail several types of costs. Protection of descriptive terms as trademarks can increase search costs and impair competition by raising the marketing costs of competitors. For example, if a cookie manufacturer were to obtain a trademark on the word “cookie,” then other companies interested in selling cookies would have a much more difficult time communicating the nature of their goods to consumers. If, however, the trademark was to “Mrs. Fields Cookies” and any protection for “cookies” was disclaimed, then potential competitors would be able to describe their products in the most easily recognized manner and would be able to develop their own marks—such as “ACME Cookies.” At a minimum, trademark protection for descriptive terms significantly reduces the effective range of terms that others can use commercially.

More generally, trademark protection for descriptive terms can impede competition. Gaining control over the most effective term for describing a product raises the costs of potential competitors seeking to sell in that marketplace. By not being able to use a term or means of communication most easily understood by the consuming public, the entrant must bear higher marketing costs. Limitations on the use of trademarked terms for purposes of comparative advertising would also impede vigorous competition.

Trademark protection can also interfere with both communicative and creative expression. Broad exclusive trademark rights would limit the ability of others (including non-competitors) to comment on and poke fun at trademarks and their owners. As we will see, various doctrines limit such adverse effects. But as trademark protection has expanded beyond the traditional core—for example, to encompass a broad conception of connection to, sponsorship of, and affiliation with a trademark owner—it becomes more difficult to assess the boundaries, leading film and television production companies, for example, to tread carefully (and increasingly incur the costs of licensing transactions) in the use of trademarks in their works.

COMMENTS AND QUESTIONS

1. *Comparative Institutional Analysis*. In addition to private rights of action for trademark infringement and false advertising, several other mechanisms are available to provide and regulate market information, such as deceit and fraud common law causes of action and privately enforced consumer protection statutes, public regulation and public enforcement of unfair competition laws, and industry self-regulation and certification organizations. How do these institutions compare with trademark protection? Should they supplement or substitute for trademark protection? See Dan L. Burk & Brett McDonnell, *Trademarks and the Theory of the Firm*, 51 WM. & MARY L. REV. 345 (2009).

2. *Status Goods*. Some trademarks also serve a more ambiguous function: signaling status or identity for some consumers. Some have referred to such commodities as “Veblen” goods, reflecting Thorstein Veblen’s theory of conspicuous consumption. See THORSTEIN VEBLEN, *THE THEORY OF THE LEISURE CLASS: AN ECONOMIC STUDY OF INSTITUTIONS* (1899). This theory posits that unlike normal goods, demand for status goods increases with their price. Purchasers of such goods may be interested in being associated with a particular brand—such as a Rolex watch, a t-shirt with the name and colors of a particular university, or a corporate brand—possibly apart from whether it is authentic or the quality associated with the authentic good. Some purchasers of such goods may well prefer a less expensive, counterfeit version. They presumably would not be confused when purchasing such goods (e.g., a Rolex watch sold on a street corner for \$10). Of course, where both buyers and sellers are aware of the difference between cheap imitations of a luxury good and the genuine article, things might be different. It could be that cheap imitations in some ways promote sales of the luxury good. See Jonathan Barnett, *Shopping for Gucci on Canal Street: Status Consumption, Intellectual Property and the Incentive Thesis*, 91 VA. L. REV. 1381 (2005).

The marketing of less expensive, lower quality imitations of status goods creates the possibility of separate harm to the sellers and purchasers of authentic goods. The availability of counterfeit articles could well divert some consumers who would otherwise purchase the authentic article, although this effect is likely to be relatively small due to the large price differential and the availability of the authentic goods for those who are interested. The lower quality of the counterfeit goods could, however, erode the goodwill associated with the authentic manufacturer through post-sale confusion—on-lookers who mistake the shoddier counterfeit good for the authentic good and are thereby less inclined to purchase the authentic version, thereby reducing sales by the trademark owner. In addition, due to the proliferation of non-easily recognized “fakes,” prior and potential purchasers of the authentic “status” goods may be less interested in owning a much less rare commodity. The value of ownership may be sullied. In essence, status goods exhibit a negative network

externality, whereby proliferation of such goods erodes the value to prior purchasers. Should trademark law be concerned with this effect?

3. *Protection Against Dilution.* In 1996, Congress expanded trademark protection beyond the prevention of consumer confusion to safeguard famous marks—such as Coca-Cola, Nike, Rolls Royce, Disney, and Tiffany’s—against blurring (loss of distinctiveness) and tarnishment of brand identity. As consumers develop their mental lexicon of brands, they associate both specific products and general attributes with particular trademarks. For example, Rolls Royce connotes both the source of a luxury automobile as well as a brand of uncompromising quality and ornate styling (as well as high cost). If another company were to introduce Rolls Royce candy bars, it is unlikely that many (if any) consumers would believe that the automobile manufacturer was the source. Whether intended or not, the candy company might benefit from the particular general attributes that the consuming public associates with the Rolls Royce brand. They might also gain some “status” equity to the extent that consumers value the signal associated with a mark. Thus, adopting the Rolls Royce name enables the newcomer some ability to free-ride on the general brand reputation of the famous trademark owner.

Such use, however, might impose some costs on consumers and the owner of the famous trademark. As this new use of the Rolls Royce term gained popularity, the association between the mark and a particular source would become blurred. Furthermore, as more companies in unrelated markets adopt this moniker—Rolls Royce tennis racquets, Rolls Royce landscaping, Rolls Royce tacos—the distinctive quality of the mark would become further eroded. Over time, consumers would lose the non-product specific identity (i.e., Rolls Royce as a brand of uncompromising quality and ornate styling) that the original Rolls Royce mark once evoked. Arguably this raises consumers’ search costs: consumers’ mental lexicon has become more difficult to parse. *See* Stacey L. Dogan & Mark A. Lemley, *The Merchandising Right: Fragile Theory or Fait Accompli?*, 54 EMORY L.J. 461 (2005).

As another example, Disney has developed a strong reputation for wholesome, family entertainment. If a pornographic filmmaker were to brand its films Disney Smut Productions, it is unlikely that many consumers would be confused as to the source of such films. Nonetheless, consumers’ shopping lexicon would arguably be distorted because the Disney name would trigger associations with both family-oriented content and pornography. Such a negative association could well injure the Disney Corporation’s brand equity.

Anti-dilution protection prevents this erosion of the distinctive quality of a mark by prohibiting famous marks from being used by others—even in unrelated product markets and in non-confusing ways. This preserves distinctive brands and affords the owners exclusive rights to carry their brand names into wholly new markets (or not). We see examples of such brand migration in many markets. Sony Corporation which honed its reputation in the consumer electronics marketplace, has now developed

products in the sound recording and motion picture marketplaces. Cross-branding, such as the marketing of a Barbie doll adorned with Coca-Cola's logo and a distinctive red ensemble, is also increasingly common.

What are the costs of anti-dilution protection? Is the harm to consumers of non-confusing, diluting uses of famous marks likely to be significant? Would scaling back or eliminating anti-dilution protection significantly weaken the incentives of firms to invest in and maintain their brand equity?

4. Distributive and Social Justice

In *A THEORY OF JUSTICE* (1971)—probably the most influential work of political philosophy written in the past century—John Rawls offers an “ideal contractarian” theory of distributive shares. To determine the just allocation of the benefits and burdens of social life, he asks what distributive principles would suitably disinterested persons choose. To ask what selfish people would want, or what social contract would actually result from a convocation of all members of society, Rawls argues, would ensure that the naturally smart or strong, or people who shared a particular race, nationality, religion, or ideology, dominated the rest, if any agreement could be reached at all. Rawls rejects this construction of the “original position” for choosing social rules—which more libertarian philosophers, such as David Gauthier, come closer to favoring—because he finds this consequence intuitively unacceptable. He assumes instead that the resources and opportunities a person should have available should not depend primarily on how fortunate he or she was in the natural lottery of talents and parents, or in what group that person happens to be born.

Rawls, therefore, tries to determine principles that rational people behind a “veil of ignorance” would choose. Rawls contends that the veil must be quite opaque. It must, for example, exclude from the minds of those choosing principles of justice all knowledge of their own abilities, desires, parentage, and social stratum.

Rawls concludes that people behind the veil of ignorance would adopt what he calls the “difference principle.” They would agree, he says, that the fundamental institutions of society should be arranged so that the distribution of “primary goods”—not only wealth, income, and opportunities for work or leisure, but also what Rawls terms the “bases of self-respect”—is to the maximal advantage of a representative member of the least advantaged social class. Defining the least advantaged class and the proper set of primary goods is difficult and contentious. In *POLITICAL LIBERALISM* (1993), Rawls refines his theory of distributive justice in the following passage:

[M]easures are required to assure that the basic needs of all citizens can be met so that they can take part in political and social life.

About this last point, the idea is not that of satisfying needs as opposed to mere desires and wants; nor is it that of redistribution in favor of greater

equality. The constitutional essential here is rather that below a certain level of material and social well-being, and of training and education, people simply cannot take part in society as citizens, much less equal citizens.

Id. at 166.

COMMENTS AND QUESTIONS

1. Do you agree with Rawls that people behind the veil of ignorance would agree that the fundamental institutions of society should be arranged so that the distribution of “primary goods”—including property—is to the maximal advantage of a representative member of the least advantaged social class? Would you agree to this principle if you were behind a veil of ignorance?

Consider political scientist James Q. Wilson’s critique:

[E]verybody in Rawls's universe is averse to risk; each wants to make certain that, if he winds up on the bottom of the heap, the bottom is as attractive as possible.

But many people are in fact not averse to risk, they are risk takers; to them, a just society would be one in which inequalities in wealth were acceptable provided that the people at the top of the heap got there as a result of effort and skill. And even people who are not risk takers may endorse this position because they think it fair that rewards should be proportional to effort, even if some people lose out entirely. (These same people might also expect their church or government to take care of those who lost out.) They have this view of fairness because they recognize that people differ in talent, energy, temperament, and interests; that conflicts among such people are inevitable; and that matching, as best one can, rewards to contributions is the best way of handling that conflict. . . .

Equality is a special and, as it turns out, rare and precarious case of equity. Settled living, and in particular the accumulation of private property, makes equality of outcomes impossible because inequality of contributions become manifest. The task of settled societies is to devise ways of assuring that outcomes are proportional to worth, reasonably defined.

JAMES Q. WILSON, *THE MORAL SENSE* 73-76 (1993); *see also* ERIC RAKOWSKI, *EQUAL JUSTICE* (1991) (advocating a more meritocratic “equality of fortune” that affords all members of society a just initial distribution of resources but tolerates inequalities resulting from exercise of free will—notably, occupational preferences, wise business decisions, and diligence in school, training, and work).

2. What do Rawls’ principles of distributive justice imply for the rights in intellectual property? Doesn’t the essential mechanism of intellectual property protection—rewarding time-limited monopoly power in exchange for advancing society’s knowledge base—inexorably produce inequality?

3. *Justifying Intellectual Property?* At a basic level, technological advance produces higher standards of living. It enables society to accomplish more with fewer resources and therefore increases productivity. Furthermore, no one is required to purchase IP-protected goods. Therefore, in an exchange economy, only those who value such goods more than their cost will purchase the goods. Moreover, patent and copyright protection eventually expire. At a coarse level of granularity, modern societies have the benefit of all manner of innovation and creativity—from sanitation technologies that support safe drinking water to telecommunications and modern medicines. As such, innovation tends to reduce poverty and raise standards of living in an absolute sense over the long run (but as John Maynard Keynes famously observed, “In the long run we are all dead”). See Peter S. Menell, *Property, Intellectual Property, and Social Justice: Mapping the Next Frontier*, 5 BRIGHAM-KANNER PROPERTY CONFERENCE JOURNAL (forthcoming 2016); cf. ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY (2011).

4. *Access to Medicine.* The argument that intellectual property protection increases productivity and eventually becomes available to all affords little solace to those who cannot afford to purchase patented, life-saving medicines. Should the patent rights give way for life-saving medicines and treatments? To what extent would such a rule undermine the race to discover cures for disease? Is unequal access to medicine best addressed through social insurance institutions? Cf. Amy Kapczynski, *Access to Knowledge Mobilization and the New Politics of Intellectual Property*, 117 YALE L.J. 804 (2008); William W. Fisher & Talha Syed, *Global Justice in Healthcare: Developing Drugs for the Developing World*, 40 U.C. DAVIS L. REV. 581 (2007).

5. *Access to Culture and Cumulative Creativity.* We can also see distributive values in the broadening of expressive opportunities for authors and artists. Since expression often builds on and reacts to prior expressive works, such distributive values can run counter to the provision of exclusive rights. Limiting doctrines and the fair use privilege implicitly cross-subsidizes cumulative creators. Such freedom to build on the work of others can, however, adversely affect authors’ moral and dignitary interests. See Molly Shaffer Van Houweling, *Distributive Values in Copyright*, 83 TEX. L. REV. 1535 (2005); see also Peter S. Menell, *Adapting Copyright for the Mashup Generation*, 164 U. PA. L. REV. 441 (2016).

6. *IP and Inequality.* While the digital revolution has provided especially rapid technological advance, it has also contributed to skewing of wealth distribution. Like the technological advances of the Industrial Revolution, the Digital Revolution of the past several decades—characterized by scalability of information technologies, network effects, and displacement of labor by smart machines—has produced a new Gilded Age. See Menell, *Property, Intellectual Property, and Social Justice*, *supra*; ERIK BRYNJOLFSSON & ANDREW MCAFEE, RACE AGAINST THE MACHINE: HOW THE DIGITAL REVOLUTION IS ACCELERATING INNOVATION, DRIVING PRODUCTIVITY, AND

IRREVERSIBLY TRANSFORMING EMPLOYMENT AND THE ECONOMY (2011). Many of the wealthiest people in the world are technology entrepreneurs. The sports and entertainment professions, which depend critically upon copyright, trademark, and publicity right protections, also contribute to high wealth for a relatively small “superstar” class.

7. *Gender and Racial Equality*. The concentration of wealth and economic leverage that intellectual property produces places vast power in the hands of a relatively small group of entrepreneurs and their representatives. The class of venture capitalists, corporate titans, Hollywood moguls, and technology and entertainment lawyers reflect historical gender and race biases. See Menell, *Property, Intellectual Property, and Social Justice*, *supra*; K.J. Greene, *Intellectual Property at the Intersection of Race and Gender: Lady Sings the Blues*, 16 AM. U. J. GENDER, SOC. POL’Y & L. 365 (2008). Yet copyright protection has been especially effective in providing whatever limited “equality of opportunity” African-Americans have enjoyed in the United States. Indeed, for the wealthiest African-Americans, copyright has been the most important form of property for social and economic advancement. See Justin Hughes & Robert P. Merges, *Copyright and Distributive Justice*, 92 NOTRE DAME L. REV. (forthcoming 2016).

Moreover, adequately funded and well-produced film, art, music, and literature play an inestimable role in promoting social and cultural understanding and tolerance. As much as lawyers emphasize the role of legal advocacy in shifting the law, the television series *Will and Grace* likely had more influence in shifting the nation’s and Supreme Court’s views on gay marriage than anything that lawyers argued. Similarly, works such as *TO KILL A MOCKINGBIRD* and *THE HELP* powerfully communicated the indignity of the Jim Crow South. The public’s gradual embrace of R&B, jazz, and gospel—what was once referred to as “race music”—played a critical role in building a more cohesive and inclusive nation. See Menell, *Property, Intellectual Property, and Social Justice*, *supra*.

8. *IP and the Environment*. While motivating the development of better environmental technologies, the patent system potentially constrains the diffusion of technological advances that seek to ameliorate environmental harms. Even if advances in wind turbine and solar technologies dramatically lowered the cost of producing electricity, distributing that energy to consumers depends critically upon a grid infrastructure that can move decentralized sources of electricity to market. Moreover, such energy must compete with harmful alternatives. Without fees to internalize those harmful effects, renewable sources of energy face a competitive disadvantage. Thus, intellectual property cannot be the sole policy to address problems like pollution and climate change. Prizes, subsidies, and externality-internalizing fees on fossil fuels offer complementary tools for balancing the R&D appropriability problem, the environmental externalities of fossil fuel consumption, and the geopolitical distortions of reliance on oil. See generally PETER S. MENELL &

SARAH M. TRAN, INTELLECTUAL PROPERTY, INNOVATION AND THE ENVIRONMENT (2014).

PROBLEM

Problem I-2. Building on your lifelong interest in music and computers, you have just spent ten years creating a computer-based encyclopedia of music called Musipedia. The encyclopedia includes text, snippets of recorded music (no longer than 60 seconds each), pictures, and other graphics, all of which can be called up by the user.

Like many other multimedia products, your encyclopedia allows the user to select a topic of interest and see (or hear) more about it. For example, from the opening menu, a user can select classical composers, then select Mozart, and then choose from a biographical sketch, with text, pictures, video clips, and samples of sheet music and audio recordings.

To make it easier for computer users to access all the information in your encyclopedia, you have used an “access interface” similar to the widely used “MediaMate” interface written and made popular by billionaire computer impresario Gil Bates. (Bates adapted the “MediaMate” interface from a publicly available interface designed by the U.S. Army to teach electronics and other technical subjects to recruits.) Although MediaMate has now become the standard interface program, Bates, because of his prodigious programming talent, wrote the program in his spare time over several weeks while watching soap operas. According to his autobiography, he “never broke a sweat” while writing it.

Since Bates’s company, MacroLoft, also owns many of the legal rights needed to play music from such musicians as Jimi Hendrix and Aretha Franklin, you have decided it is time to negotiate directly with Bates prior to placing your encyclopedia on the market. Note that although Bates has received *licenses* in the relevant copyrights, it is widely known that some of the musicians, notably Neil Young, who created the songs are not pleased with the use of short snippets on low fidelity computer sound systems, some of which sound “tinny.”

You are aware that negotiating with Bates is far different from standard business practice. He is known to do all negotiating standing up in an unheated room in a mountain cabin with no lawyers or assistants of any kind. Most unusually, he is not interested at all in formal legal rights. Reflecting his photographic memory of all of the great works of philosophy, he insists on negotiating from what he calls “first principles.” This usually involves long discussions of who should have which rights in which situations, and why.

You would like to convince Bates to let you market your encyclopedia without paying him any royalties for songs, the access interface, or anything else. Failing this, you would like to keep these royalties to a minimum. What are your strongest

arguments? What are Bates's best counter-arguments and how would you counter them?

B. OVERVIEW OF INTELLECTUAL PROPERTY

Intellectual property law has traditionally been taught along doctrinal lines. Separate courses have covered patent, copyright, and trademarks, with trade secrets often lost between the gaps. Yet the practice of intellectual property law increasingly cuts across these lines. Computer technology companies, for example, frequently require lawyers to address trade secret, copyright, patent, trademark, and antitrust issues simultaneously. Moreover, from a purely practical standpoint, clients are ultimately interested in appropriating a return from their investments, not in how many patents, copyrights, trademarks, or trade secrets their lawyers can obtain. Thus, intellectual property lawyers must possess an integrated understanding of these various fields to provide sound advice.

With this objective in mind, our book integrates the various modes of intellectual property in a functional manner. Nonetheless, it is still necessary to devote significant time to mastering each of the distinct fields. Therefore, the next five chapters survey the principal modes of intellectual property—trade secret, patent, copyright, trademark/trade dress, and related state law doctrines—while emphasizing the overlaps and interactions of the various bodies of law. Later chapters integrate this material and explore advanced topics.

Before we begin this more detailed study, however, a brief survey of the overall landscape of intellectual property is in order. The following section sketches the elements of each of the principal modes of intellectual property protection in a comparative framework. These elements are summarized in Table 1-1. As an initial exploration, we conclude the chapter with a problem highlighting the integrated nature of intellectual property law and the challenges of applying its many branches to a real-world problem.

TABLE 1-1
Principal Modes of Legal Protection for Intellectual Work

	<i>Trade secret</i>	<i>Patent</i>	<i>Copyright</i>	<i>Trademark/dress</i>
Underlying Theory	Freedom of contract; protection against unfair means of competition	Limited monopoly to encourage production of utilitarian works in exchange for immediate disclosure and ultimate enrichment of the public domain	Limited (although relatively long-lived) monopoly to encourage the authorship of expressive works; developed initially as a means of promoting publishing	Perpetual protection for distinctive nonfunctional names and dress to improve the quality of information in the marketplace
Source of Law	State statute (Uniform Trade Secrets Act); common law	Patent Act (federal)	Copyright Act (federal); common law (limited)	Lanham Act (federal); common law (unfair competition)
Subject Matter	Formula, pattern, compilation, program, device, method, technique, process	Process, machine, manufacture, or composition of matter; plants (asexually reproducing); designs— <i>excluding</i> : laws of nature, natural substances, printed matter (forms), mental steps	Literary, musical, choreographic, dramatic and artistic works as well as computer software and aesthetic elements of useful articles <i>limited by</i> idea/expression dichotomy (no protection for ideas, systems, methods, procedures); no protection for facts/research	Trademarks; service marks; certification marks (e.g., Good Housekeeping); collective marks (e.g., American Automobile Association); trade dress (§43(a)); <i>no protection for</i> functional features, descriptive terms, geographic names, misleading aspects, or “generic” terms (e.g., thermos)

TABLE 1-1
Principal Modes of Legal Protection for Intellectual Work

	<i>Trade secret</i>	<i>Patent</i>	<i>Copyright</i>	<i>Trademark/dress</i>
Standard for Protection	Information not generally known or available; reasonable efforts to maintain secrecy; commercial value	Novelty; non-obviousness; and utility (distinctiveness for plant patents; ornamentality for design patents)	Originality; authorship; fixation in a tangible medium	Distinctiveness; secondary meaning (for descriptive and geographic marks); use in commerce (minimal); famous mark (for dilution protection)
Scope of Protection	Protection against misappropriation—acquisition by improper means or unauthorized disclosure	Exclusive rights to make, use, sell, offer to sell, or import innovation as Limited by contribution to art; extends to “equivalents”	Rights of performance, display, distribution, reproduction, derivative works; limited protection for attribution and integrity afforded some works of visual art; protection against circumvention of technical protection measures	Exclusive rights in U.S.; likelihood of confusion; false designation of origin (§43(a)); dilution (for famous marks)
Period of Protection	Until becomes public knowledge	20 years from filing (utility); extensions up to 5 years for drugs, medical devices and additives; 15 years from issuance (design)	Life of author + 70 years; “works for hire”: minimum of 95 years after publication or 120 years after creation	Perpetual, subject to abandonment
Disclosure	Loss of protection	Right to patent lost if	© notice and publication	® notice optional;

TABLE 1-1
Principal Modes of Legal Protection for Intellectual Work

	<i>Trade secret</i>	<i>Patent</i>	<i>Copyright</i>	<i>Trademark/dress</i>
	(unless sub rosa)	inventor delays too long after publishing before filing application; full disclosure is required as part of application; notice of patent required for damages in some cases	no longer required, but confer certain benefits	establishes prima facie evidence of validity, constructive knowledge of registration, confers federal jurisdiction, becomes incontestable after 5 years of continuous use, authorizes treble damages and attorney fees, and right to bar imports bearing infringing mark
Rights of Others	Independent discovery; reverse engineering	Only if licensed; can request reexamination of patent by Patent Office	Fair use; compulsory licensing for musical compositions, cable TV, et al.; independent creation	Truthful reflection of source of product; fair and collateral use (e.g., comment)
Costs of Protection	Security expenses; personnel dissatisfaction; litigation costs	Filing, issue, and maintenance fees; litigation costs	None (protection attaches upon fixation); publication requires notice; suit requires registration; litigation costs	Registration search; marking product (optional—see above); litigation costs
Licensing and Assignment	Complicated by inherent nature of bargaining (seller wants guarantee	Encouraged by completeness of property rights,	Assignor has termination right between 36th and 41st years following	No naked licenses (owner must monitor licensee); no sales of trademark “in

TABLE 1-1
Principal Modes of Legal Protection for Intellectual Work

	<i>Trade secret</i>	<i>Patent</i>	<i>Copyright</i>	<i>Trademark/dress</i>
	before disclosure; buyer wants to know what is offered)	subject to antitrust constraints	transfer	gross”
Remedies	Civil suit for misappropriation; conversion, unjust enrichment, breach of contract; damages (potentially treble) and injunctive relief; criminal prosecution for theft	Injunctive relief and damages (potentially treble); attorney fees (in exceptional cases)	Injunction against further infringement; destruction of infringing articles; damages (actual or profits); statutory (\$200–\$150,000 damages within court’s discretion); attorney fees (within court’s discretion); criminal prosecution	Injunction; accounting for profits; damages (potentially treble); attorney fees (in exceptional cases); seizure and destruction of infringing goods; criminal prosecution for trafficking in counterfeit goods or services

1. Trade Secret

Trade secret protection arises from state law statutes and common law doctrines that protect against the misappropriation of confidential information that is the subject of reasonable efforts to maintain secrecy. As such, they are more akin to traditional tort and contract law than to patent or copyright law. While protection for trade secrets has long been a part of the common law, most states today protect trade secrets by statute. The federal government has taken a growing interest in protecting trade secrets as concerns about international espionage and hacking have grown. The purpose of protecting trade secrets is to prevent “theft” of information by unfair or commercially unreasonable means. In essence, trade secret law is a form of *private* intellectual property law under which creators establish contractual limitations or build legal “fences” that afford protection from misappropriation.

The definition of subject matter eligible for protection is quite broad: business or technical information of any sort. To be protected by trade secret laws, the information must be a secret. However, only relative and not absolute secrecy is required. In addition, the owner of a trade secret must take reasonable steps to maintain its secrecy. Trade secrets have no definite term of protection but may be protected only as long as they are secret. Once a trade secret is disclosed, protection is lost.

There is no state agency that “issues” (or even registers) trade secrets. Rather, any information that meets the above criteria can be protected. Courts will find misappropriation of trade secrets in two circumstances: (1) where the secrets were obtained by theft or other improper means, or where they were used; or (2) disclosed in violation of a confidential relationship agreement. However, trade secret laws do not protect against independent discovery or invention. Nor do they prevent competitors from “reverse engineering” a legally obtained product to determine the secrets contained inside. Violations of trade secret law entitle the owner to damages and in some cases injunctions against use or further disclosure.

2. Patent

Patent law is the classic example of an intellectual property regime modeled on the utilitarian framework. Following the constitutional authorization to promote progress in the “useful Arts,” what we would today call technology and scientific discovery, patent law offers the possibility of a limited period of exclusive rights to encourage research and development aimed at discovering new processes, machines, articles of manufacture, and compositions of matter, and improvements thereof. The public benefits directly through the spur to innovation and disclosure of new technology. After the term of the patent expires, the innovation becomes part of the public domain, freely available to all.

To obtain a utility patent, an inventor must submit an application to the Patent and Trademark Office (PTO) that meets five requirements: patentable subject matter, usefulness, novelty, nonobviousness, and disclosure sufficient to enable others skilled in the art to make and use the invention. While the threshold for usefulness is low, the novelty and non-obviousness standards are substantial, and the PTO conducts an independent review of the application to ensure that it meets these requirements. If the PTO grants the patent, the inventor obtains exclusive rights to make, use, and sell the innovation for a term of up to 20 years (from the application filing date). The patent grant is nearly absolute, barring even those who independently develop the invention from practicing its art. Infringement will be found where the accused device, composition, or process embodies all of the elements of a valid patent claim (or accomplishes substantially the same function in substantially the same way to achieve the same result).

The PTO also issues plant patents for distinctive plants and design patents for ornamental designs for articles of manufacture. Design patents have a term of 15 years (from issuance).

3. Copyright

Although the copyright and patent laws flow from the same constitutional basis and share the same general approach—statutorily created monopolies to foster progress—they feature different elements and rights, reflecting the very different fields of human ingenuity that they seek to encourage. In general, copyrights are easier to secure and last substantially longer than patents, although the scope of protection afforded copyrights is narrower and less absolute than that given to patents.

Copyright law covers the broad range of literary and artistic expression—including books, poetry, song, dance, dramatic works, computer programs, movies, sculpture, and paintings. Ideas themselves are not copyrightable, but the author’s particular expression of an idea is protectable. A work must exhibit a modicum of originality and be fixed in a “tangible medium of expression” to receive protection. Copyright protection attaches as soon as a work is fixed. There is no examination by a governmental authority, although the Copyright Office registers copyrightable works. Such registration is no longer required for validity, but U.S. authors must register their works prior to filing an infringement suit. A copyright lasts for the life of the author plus 70 years or a total of 95 years in the case of entity authors.

The breadth and ease of acquisition of copyright protection are balanced by the more limited rights that copyright law confers. Ownership of a valid copyright protects a copyright holder from unauthorized copying, public performance, and display, and it entitles the holder to make derivative works and to control sale and distribution of the work. These rights, however, are limited in a number of ways.

Others may make “fair use” of the material in certain circumstances. The Copyright Act also establishes compulsory licensing for musical compositions and cable television. A limited set of moral rights protects against misattribution or destruction of a narrow class of works of visual art.

Copyright law protects only against *copying* of protected expression. Independent creation of a copyrighted work does not violate the Copyright Act, nor does copying the unprotected elements of a work. Therefore, copyright law must have some mechanism for determining when a work has been copied illegally. While in rare cases direct proof of copying may be available, usually it is not. In its place, courts infer copying from proof that the defendant has had *access* to the plaintiff’s work combined with evidence that the two works are *similar*. Even if copying is established, it must be further shown that the defendant’s work is *substantially similar* to protected elements (e.g., excluding ideas) of the plaintiff’s work.

With the proliferation of digital technology, Congress has augmented traditional copyright protection by prohibiting the circumvention of technical protection measures intended to prevent unauthorized use and distribution of copyrighted works and alteration of copyright management information. These new rights are subject to various exceptions and limitations.

4. Trademark/Trade Dress

Trademarks are also protected by state statute and common law as well as federal statute, although the source of constitutional authority is different from that of the Patent and Copyright Acts. Rather than deriving from a specific grant of constitutional power, federal power to regulate trademarks and unfair competition is based on the Commerce Clause, which authorizes Congress to regulate foreign and interstate commerce. Unlike patent and copyright protection, trademark law did not evolve from a desire to stimulate particular types of economic activity. Rather, its original purpose was to protect consumers from unscrupulous sellers attempting to fly under the banner of someone else’s logo or identifying symbol. Trademark law has more recently embraced incentive and natural rights rationales. The Lanham Act (the federal trademark statute) protects words, symbols, and other attributes that serve to identify the nature and source of goods or services. Examples of marks protectable under the Lanham Act include corporate and product names, symbols, logos, slogans, pictures and designs, product configurations, colors, and even smells. Not all such marks are protectable, however. To receive trademark protection, a mark need not be new or previously unused, but it must represent to consumers the source of the good or service identified. It cannot be merely a description of the good itself or a generic term for the class of goods or services offered. Further, the identifying mark may not be a functional element of the product itself but must serve a purely identifying purpose. Since 1996, famous marks also receive federal protection against “dilution” by blurring or tarnishment. Finally, trademark protection is directly tied to the use of

B. OVERVIEW OF INTELLECTUAL PROPERTY💡 ***I-41***

the mark to identify goods in commerce. Trademarks do not expire on any particular date but continue in force until they are “abandoned” by their owner or become unprotectable.

The PTO examines trademark applications and issues trademark registrations that confer significant benefits upon the registrants, including prima facie evidence of validity; constructive notice to others of the claim of ownership; federal subject matter jurisdiction; incontestability after five years, which confers exclusive right to use the mark; authorization to seek treble damages and attorney fees; and the right to bar importation of goods bearing the infringing mark. Federal trademark registration, however, is not necessary to obtain trademark protection. A trademark owner who believes that another is using the same or a similar mark to identify competing goods can bring suit for trademark infringement. Infringement turns on whether consumers are likely to be confused as to the origin of the goods or services. If so, the trademark owner is entitled to an injunction against the confusing use, damages for past infringement, and in some cases the seizure and destruction of infringing goods.

PROBLEM

Problem I-3

MEMORANDUM

To: Associate

From: Senior Partner

Re: HEALTHWARE Inc.

Janet Peterson called me yesterday about a new venture that she plans to try to get off the ground. As you may know, Janet is a computer programmer and a registered nurse. She has an interesting idea for a new venture and would like our advice on how she might structure the business to have the best potential for success.

She would like to call the venture Healthware. Janet believes that she can tap into the diet/health/environmental/mobile device craze by developing a user-friendly app that would monitor the user’s diet and fitness activity. The user would input information on his or her health (e.g., age, weight, medical history, dietary restrictions). Each day, the program would collect information on the user’s diet and physical exercise. An accelerometer built into the user’s smartphone would collect exercise information. The user could manually enter their food consumption, or could use a Quick Response Code (a matrix barcode) reader to scan dietary information on a growing array of packaged and restaurant foods. The software would periodically provide an analysis of the user’s health, as well as suggestions for achieving the user’s goals, whether weight reduction, better fitness, or general health. In addition, the program would compile a record of the user’s activities which they could bring to annual physicals. Other subroutines would be available for pregnant and lactating women, children, the elderly, diabetics, vegetarians, triathletes, etc.

Janet thinks that she could put together the diverse people necessary to pull this project off: programmers, a nutritionist, a physician, a fitness consultant. She is concerned, however, that one of these people could, after they are familiar with the product, develop a competing program.

What are the options for structuring Healthware? What problems do you foresee in structuring this venture? Assuming that the product is popular, what are the major risks to Healthware's success? How can we structure Healthware so as to overcome these problems?

CHAPTER II: TRADE SECRET LAW

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A. INTRODUCTION

1. Historical Background

The idea that information should be protected against “theft” (which may include the physical taking of tangible goods containing information or simply the copying or memorization of data) is a venerable one in the law. One scholar traces the earliest legal protection against “misappropriation of trade secrets” to the Roman empire. See A. Arthur Schiller, *Trade Secrets and the Roman Law: The Actio Servi Corrupti*, 30 COLUM. L. REV. 837 (1930).¹ The Roman courts created a cause of action called “actio servi corrupti” — literally, an action for corrupting a slave. According to Schiller, the actio servi corrupti was used to protect slave owners from third parties who would “corrupt” slaves (by bribery or intimidation) into disclosing their owners’ confidential business information. The law made such third parties liable to the slave owner for twice the damages he suffered as a result of the disclosure.

While scholarship has cast some doubt on the enforcement of trade secret protection in the Roman empire, see Alan Watson, *Trade Secrets and Roman Law: The Myth Exploded*, 11 TUL. EUR. & CIV. L.F. 19 (1996), the concept that so-called business or “trade secrets” were entitled to legal protection spread rapidly throughout the world. As early as the Renaissance, most European nation-states had laws that protected businesses (notably, the guild cartels) from those who used their secret processes and ideas without permission. During the Industrial Revolution, courts and legislatures translated these early laws into statutes that protected “industrial secrets.” Many of these statutes are still in force today, albeit in modified form.

The modern trade secret regime traces most clearly and directly to the Industrial Revolution. In preindustrial economies, craftsmen passed along their knowledge of the trade to their apprentice with the understanding that the know-how would be kept secret during the apprenticeship period. See Catherine L. Fisk, *Working Knowledge: Trade Secrets, Restrictive Covenants in Employment, and the Rise of Corporate Intellectual Property*, 1800–1920, 52 HASTINGS L.J. 441, 450–51 (2001). After this train-

¹ Arguably, trade secrets existed before this time, albeit in unusual forms. Consider Mark C. Suchman, *Invention and Ritual: Notes on the Interrelation of Magic and Intellectual Property in Pre-literate Societies*, 89 COLUM. L. REV. 1264, 1274 (1989):

[L]et us imagine a hypothetical preliterate inventor who, through diligence or good fortune, discovers that her maize crop is larger when she plants a small fish next to each kernel of corn. . . . Clearly, this technique has economic value and could garner its creator material and social rewards if she could monopolize it and license it for a fee. Unfortunately, the odds of keeping such a discovery secret are slight. . . . [T]he procedure is so simple that even a casual observer could replicate the process. . . . Magic, however, provides a way out of the dilemma. By claiming, for example, that the power of the fish is activated by a talisman that she alone possesses, the inventor can remove her idea from the public domain. . . . [T]he magicked process is far easier to monopolize than the simple technology alone.

ing, the apprentice was free to practice the trade. These protections were reinforced by custom, trade guilds, and close-knit communities. *See* CARLO M. CIPOLLA, *BEFORE THE INDUSTRIAL REVOLUTION: EUROPEAN ECONOMY AND SOCIETY 1000-1700* (2d ed. 1980).

This informal system, governed principally through social norms and restrictions on apprentice mobility through mandatory periods of service, eroded as industrialization shifted production to factories and labor mobility increased. Factories operated on a far larger scale than traditional craft enterprises and without the social and guild constraints on the dissemination of proprietary techniques and know-how. While patents afforded protection for larger, discrete advances, smaller-bore, incremental know-how was more vulnerable to misappropriation in the impersonal, specialized factory setting. By the early nineteenth century, factory owners in England pressed for a broader form of protection for workplace trade secrets. The know-how behind industrial processes gradually gained recognition and enforcement by common law courts. *See Newbery v. James*, 35 Eng. Rep. 1011, 1011-12 (Ch.) (1817); Fisk, *supra*, at 450-88. The practice spread to the United States by the mid-nineteenth century and developed rapidly. *See Vickery v. Welch*, 36 Mass. (19 Pick.) 523, 525-27 (1837).

Trade secret protection could encompass information that was not generally known to the public so long as the employer undertook reasonable precautions to preserve secrecy. This latter requirement brought non-disclosure agreements (“NDAs”) into common practice. Failure to guard against disclosure of trade secrets by employees and contractors would jeopardize trade secret protection.

The emerging law of trade secrets was thus collected in the RESTATEMENT OF TORTS, published in 1939. The RESTATEMENT protected as a trade secret any information “used in one’s business” that gives its owner “an opportunity to obtain an advantage over competitors who do not know or use it,” so long as the information was in fact a secret. When the RESTATEMENT (SECOND) OF TORTS was published in 1979, the authors omitted sections 757 and 758 on the grounds that the law of trade secrets had developed into an independent body of law that no longer relied on general principles of tort law. Nonetheless, the original RESTATEMENT has remained influential because so many judicial decisions have relied on it, and statutes and other key sources have integrated its tenets.

By the mid-twentieth century, “the body of state and federal law that ha[d] traditionally coped with [industrial espionage] languish[ed] in a deepening maze of conflict and confusion.” *See Note, Theft of Trade Secrets: The Need for a Statutory Solution*, 120 U. PA. L. REV. 378 (1971). Recognizing this doctrinal muddle and the growing economic importance of trade secret protection, the American Bar Association established a special committee to investigate the drafting of a uniform trade secret act to harmonize protection among the states in 1968. Over the course of the next decade, that committee drafted and refined the Uniform State Trade Secrets Act

(UTSA), which the National Commission on Uniform State Laws promulgated in 1979. The UTSA has since been adopted by 47 states and the District of Columbia. In the 1990s, the American Law Institute integrated trade secret law into the RESTATEMENT (THIRD) OF UNFAIR COMPETITION. In 2016, Congress enacted the Defend Trade Secrets Act, which brought uniformity of federal law without significantly changing the rules that have developed in state law. Before turning to these modern sources of trade secret protection, it will be useful to examine the principles undergirding trade secret protection.

2. Theoretical Justifications for Trade Secrets

Trade secret law has long been justified on one of two competing grounds. Some treat trade secrets as a form of property, while others view it as a law grounded in unfair competition.

i. Property Rights

Some jurists have conceptualized “intellectual property” as a species of the broader concept of “property.” In addressing whether government disclosure of proprietary information constituted a taking under the Fifth Amendment to the U.S. Constitution, the Supreme Court held that trade secrets constituted a form of property. *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1001-04 (1984). In finding that trade secrets were “property,” the court reasoned in part that “[t]rade secrets have many of the characteristics of more tangible forms of property. A trade secret is assignable. A trade secret can form the res of a trust, and it passes to a trustee in bankruptcy.” *Id.* at 1002-04.

Courts routinely characterized trade secrets as “property”² and granted injunctive relief to prevent their disclosure. The nature of the “property” interest was, however, limited by the relational character of trade secrets. *See* Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of Justification*, 86 CAL. L. REV. 241, 251-60 (1998). As the court in *Peabody v. Norfolk*, 98 Mass. 452, 458 (1868), noted, if a party “invents or discovers and keeps secret a process of manufacture, whether a proper subject for a patent or not, he has not indeed an exclusive right to it as against the public, or against those who in good faith acquire knowledge of it, but he has property in it which a court of chancery will protect against one who, in violation of contract and breach of confidence, undertakes to apply it to his own use, or to disclose it to third persons.” The court explained that courts of equity would intervene to “prevent such a breach of trust, when the injury would be irreparable and the remedy

² *See, e.g., Tabor v. Hoffman*, 118 N.Y. 30, 23 N.E. 12 (1889) (holding that “independent of copyright or letters patent, an inventor or author has, by the common law, an exclusive property in his invention or composition, until by publication it becomes the property of the general public”).

at law inadequate, is well established by authority.” Thus, injunctions were available for breaches of trust “in the course of confidential employment.”

Treatment of trade secrets as property rights vested in the trade secret “owner” is consistent with a view of trade secrets law as providing an additional incentive to innovate, beyond those provided in patent law. The Supreme Court has offered some support for this incentive view:

Certainly the patent policy of encouraging invention is not disturbed by the existence of another form of incentive to invention. In this respect the two systems are not and never would be in conflict. . . .

Trade secret law will encourage invention in areas where patent law does not reach, and will prompt the independent innovator to proceed with the discovery and exploitation of his invention. Competition is fostered and the public is not deprived of the use of valuable, if not quite patentable, invention.

Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 481-85 (1974).

ii. Tort Law

An alternate explanation for much of trade secrets law is what might be described as a “duty-based” theory, or what Melvin Jager calls “the maintenance of commercial morality.” 1 MELVIN JAGER, *TRADE SECRETS LAW* §1.03, at 1-4. As noted above, Justice Oliver Wendell Holmes questioned the “property” view of trade secrets in *E.I. du Pont & Co. v. Masland*, 244 U.S. 100, 102 (1917), preferring to characterize these rights in relational terms. As Justice Holmes explained,

the word ‘property’ as applied to . . . trade secrets is an unanalyzed expression of certain secondary consequences of the primary fact that the law makes some rudimentary requirements of good faith. Whether the plaintiffs have any valuable secret or not, the defendant knows the facts, whatever they are, through a special confidence that he accepted. The property may be denied, but the confidence cannot be. Therefore, the starting point for the present matter is not property or due process of law, but that the defendant stood in confidential relations with the plaintiffs.

E.I. duPont de Nemours Powder Co. v. Masland, 244 U.S. 100, 102 (1917).³ Closely related to *Masland*’s theory of “breach of confidence” is the contract basis for trade secret law. While not always applicable, many trade secret cases arise out of a “duty” explicitly stated in a contract, such as a technology license or an employment agreement. The tort-based theory of breach of duty merges in those cases with a standard common law action for breach of contract. Cf. Robert G. Bone, *A New Look at Trade*

³ The *Monsanto* Court attempted to distinguish *Masland* in a footnote, claiming that “Justice Holmes did not deny the existence of a property interest; he simply deemed determination of the existence of that interest irrelevant to the resolution of the case.” *Monsanto*, 467 U.S. 1004 n.9.

Secret Law: Doctrine in Search of Justification, 86 CAL. L. REV. 241 (1998) (questioning any distinct theoretical justification for trade secret law and arguing that contract and tort doctrines provide a proper foundation).

Trade secret law has long been grounded in what has been termed “commercial morality.” See MELVIN F. JAGER, *TRADE SECRETS LAW* §1:3 (2013) (“[t]he Anglo-American common law . . . began to develop protection for business secrets to enhance commercial morality and good-faith dealings in business”); Bone, 86 CAL. L. REV. at 244 (“Trade secret law is grounded in “relationally specific duties,” such as “disloyal employees who use or disclose their employers’ secrets in violation of a duty of confidence stemming from the employer-employee relationship”).

The *Eastman* case illustrates the principle in action. See *Eastman Co. v. Reichenbach*, 20 N.Y.S. 110, 110, 116 (N.Y. Sup. Ct. 1892), *aff’d sub nom. Eastman Kodak Co. v. Reighenbach*, 29 N.Y.S. 1143 (N.Y. Gen. Term 1894). In the late nineteenth century, Eastman (Kodak), a pioneering developer of photographic technology, brought suit against former high-level employees who departed to start a competing business using secret information that they helped develop at Eastman. They had executed assignment agreements covering all inventions, discoveries, and improvements in photography that they might make, discover, or invent while at Eastman and agreed to maintain company secrets in strict confidence and not to disclose or make improper use of them. The court enjoined defendants’ competing venture on the ground that

[t]his is not legitimate competition, which it is always the policy of the law to foster and encourage, but it is *contra bonos mores* [against good morals], and constitutes a breach of trust which a court of law, and much less a court of equity, should not tolerate.

20 N.Y.S. at 116.

This theme pervades trade secret law. As the Supreme Court recognized in *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974), its landmark decision holding that federal patent law does not preempt state trade secret protection, “[t]he maintenance of standards of commercial ethics and the encouragement of invention are the broadly stated policies behind trade secret law. ‘The necessity of good faith and honest faith dealing is the very life and spirit of the commercial world.’” *Id.* at 481–82 (1974) (quoting *National Tube Co. v. Eastern Tube Co.*, 3 Ohio Cir.Ct.R., N.S., 459, 462 (1902), *aff’d*, 69 Ohio St. 560, 70 N.E. 1127 (1903)).

iii. A Third Way?

Professor Mark Lemley argues that trade secrets make sense not so much as real property, but as *intellectual* property—that is, as government policy designed to promote innovation and, ironically, to encourage efficient disclosure of secrets. Mark A.

Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61 STAN. L. REV. 311 (2008).

The promotion of innovation principle resonates with a property view of trade secrets. Protecting against the theft of proprietary information encourages investment in such information. By contrast, the commercial morality concern aims to deter wrongful acts and is therefore sometimes described as a tort theory. Here the aim of trade secret law is to punish and prevent illicit behavior and even to uphold reasonable standards of commercial behavior. Under the tort theory trade secret protection is not explicitly about encouraging investments. It is plain, however, that one consequence of deterring wrongful behavior would be to encourage investment in trade secrets. Hence, despite their conceptual differences, the tort and property/incentive approaches to trade secrets may well push in the same direction.

The *Kewanee Oil* opinion similarly recognized an IP-related goal of trade secret protection: encouragement of research and development. The Court recognized that even though a discovery may not be patentable, that does not destroy the value of the discovery to one who makes it, or advantage the competitor who by unfair means, or as the beneficiary of a broken faith, obtains the desired knowledge without himself paying the price in labor, money, or machines expended by the discoverer.

Id. at 482 (quoting *A. O. Smith Corp. v. Petroleum Iron Works Co.*, 73 F.2d 531, 539 (6th Cir. 1934). The Court emphasized “the importance of trade secret protection to the subsidization of research and development and to increased economic efficiency within large companies through the dispersion of responsibilities for creative developments.” *See id.* (citing *Wexler v. Greenberg*, 399 Pa. 569, 578-79, 160 A.2d 430, 434-435 (Penn. S.Ct. 1960)). This aligns with Justice Gray’s declaration, in an early seminal case, that “it is the policy of the law, for the advantage of the public, to encourage and protect invention and commercial enterprise.” *Peabody v. Norfolk*, 98 Mass. at 458.

3. Overview of Modern Trade Secret Protection

Today, every one of the United States protects trade secrets in some form or another. Improper use or disclosure of a trade secret was traditionally a common law tort. As noted earlier, the Uniform Trade Secrets Act has come to unify trade secret protection notwithstanding its predominately state law foundation. The RESTATEMENT OF TORTS, §§757, 758 as well as the RESTATEMENT (THIRD) OF UNFAIR COMPETITION also serve as valuable sources for navigating trade secret protection.

Only New York, North Carolina, and Massachusetts have not adopted the UTSA, although North Carolina’s trade secret statute borrows heavily from the UTSA. New York and Massachusetts protect trade secrets under common law, applying the Re-

statement of Torts framework. Because of the Uniform Act's importance, we reproduce its primary provisions here.

Uniform Trade Secrets Act, with 1985 Amendments

§1. Definitions

As used in this [Act], unless the context requires otherwise:

(1) "Improper means" includes theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, or espionage through electronic or other means;

(2) "Misappropriation" means:

(i) acquisition of a trade secret of another by a person who knows or has reason to know that the trade secret was acquired by improper means; or

(ii) disclosure or use of a trade secret of another without express or implied consent by a person who

(A) used improper means to acquire knowledge of the trade secret; or

(B) at the time of disclosure or use, knew or had reason to know that his knowledge of the trade secret was

(I) derived from or through a person who had utilized improper means to acquire it;

(II) acquired under circumstances giving rise to a duty to maintain its secrecy or limit its use; or

(III) derived from or through a person who owed a duty to the person seeking relief to maintain its secrecy or limit its use; or

(C) before a material change of his [or her] position, knew or had reason to know that it was a trade secret and that knowledge of it had been acquired by accident or mistake. . . .

(4) "Trade secret" means information, including a formula, pattern, compilation, program, device, method, technique, or process, that:

(i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and

(ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

The federal Defend Trade Secrets Act, enacted in 2016, was “modeled on the Uniform Trade Secrets Act,” H. REP. NO. 114-529, 114th CONG., 2D SESS., DEFEND TRADE SECRETS ACT OF 2016, (2016). It defines both trade secret and misappropriation using the language of the UTSA. The DTSA augments the UTSA by defining “improper means”:

(A) includes theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, or espionage through electronic or other means; and

(B) does not include reverse engineering, independent derivation, or any other lawful means of acquisition.

A trade secret claim can be broken down into three essential elements. First, the subject matter involved must qualify for trade secret protection: it must be the type of knowledge or information that trade secret law was meant to protect, and it must not be generally known to all. On eligible subject matter, the current trend, exemplified once again by the UTSA, is to protect as a trade secret any valuable information so long as the information is capable of adding economic value to the plaintiff. The requirement that the information not be generally known follows from the label trade secret. The requirement is meant to ensure that no one claims intellectual property protection for information commonly known in a trade or industry.

The second element to be established by the plaintiff in a trade secret case is that the plaintiff, holder of the trade secret, took *reasonable precautions* under the circumstances to prevent its disclosure. Courts have shown some confusion over the rationale for this requirement. Some see in it evidence that the trade secret is valuable enough to bother litigating; others argue that where the plaintiff has taken reasonable precautions, chances are that a defendant acquired the trade secret wrongfully. Whatever the justification, it is clear that no one may let information about products and operations flow freely to competitors at one time and then later claim that competitors have wrongfully acquired valuable trade secrets. To establish the right to sue later, one must be consistently diligent in protecting information. As always, however, the presence of the term “reasonable” ensures close cases and difficult line-drawing for courts, a theme reflected in several of the cases that follow.

Finally, a trade secret plaintiff also must prove that the defendant acquired the information wrongfully—in a word, that the defendant *misappropriated* the trade secret. Just because a person’s information is valuable does not make it wrong for another to use it or disclose it. But use or disclosure is wrong, in the eyes of trade secret law, when the information is acquired through deception, skullduggery, or outright theft. As we will see in the cases that follow, close cases abound in this area because of the creativity of competitors in rooting out information about their rivals’ businesses and products.

In many cases, a defendant's use or disclosure is wrongful because of a preexisting obligation to the plaintiff not to disclose or appropriate the trade secret. Such an obligation can arise in either of two ways: explicitly, by contract; and implicitly, because of an *implied duty*. A classic example of an implied duty is the case of an employee. Even in the absence of an explicit contract, most employees are held to have a duty to protect their employers' interests in their secret practices and information. Even where the duty arises by explicit contract, however, public policy limitations on the scope and duration of the agreement will often come into play, in some cases resulting in substantial judicial modification of the explicit obligations laid out in the contract.

B. SUBJECT MATTER

1. Defining Trade Secrets

Metallurgical Industries Inc. v. Fourtek, Inc.
United States Court of Appeals for the Fifth Circuit
790 F.2d 1195 (5th Cir. 1986)

GEE, Circuit Judge:

Today's case requires us to review Texas law on the misappropriation of trade secrets. Having done so, we conclude that the district court misconceived the nature and elements of this cause of action, a misconception that led it to direct a verdict erroneously in favor of appellee Bielefeldt. We also conclude that the court abused its discretion in excluding certain evidence. Accordingly, we affirm in part, reverse in part, and remand the case for a new trial.

I. Facts of the Case

We commence with a brief description of the scientific process concerned. Tungsten carbide is a metallic compound of great value in certain industrial processes. Combined with the metal cobalt, it forms an extremely hard alloy known as "cemented tungsten carbide" used in oil drills, tools for manufacturing metals, and wear-resistant coatings. Because of its great value, reclamation of carbide from scrap metals is feasible. For a long time, however, the alloy's extreme resistance to machining made reclamation difficult. In the late 1960's and early 1970's, a new solution — known as the zinc recovery process — was devised, a solution based on carbide's reaction with zinc at high temperatures. In the crucibles of a furnace, molten zinc will react with the cobalt in the carbide to cause swelling and cracking of the scrap metal. After this has occurred, the zinc is distilled from the crucible, leaving the scrap in a more brittle state. The carbide is then ground into a powder, usable in new products as an alternative to virgin carbide. This process is the generally recognized modern method of carbide reclamation.

Metallurgical Industries has been in the business of reclaiming carbide since 1976, using the more primitive “cold-stream process.” In the mid-1970’s, Metallurgical began to consider using the zinc recovery process. In that connection, it came to know appellee Irvin Bielefeldt, a representative of Therm-O-Vac Engineering & Manufacturing Company (Therm-O-Vac). Negotiations led to a contract authorizing Therm-O-Vac to design and construct two zinc recovery furnaces, the purchase order for the first being executed in July 1976.

The furnace arrived in April 1977. Dissatisfied with its performance, Metallurgical modified it extensively. First, it inserted chill plates in one part of the furnace to create a better temperature differential for distilling the zinc. Second, Metallurgical replaced the one large crucible then in place with several smaller crucibles to prevent the zinc from dispersing in the furnace. Third, it replaced segmented heating elements which had caused electric arcing with unitary graphite heating elements. Last, it installed a filter in the furnace’s vacuum-pumps, which zinc particles had continually clogged. These efforts proved successful and the modified furnace soon began commercial operation.

. . . [M]etallurgical returned to Therm-O-Vac for its second furnace. A purchase order was signed in January 1979, and the furnace arrived that July. Further modifications again had to be made, but commercial production was allegedly achieved in January 1980.

In 1980, after Therm-O-Vac went bankrupt, Bielefeldt and three other former Therm-O-Vac employees — Norman Montesino, Gary Boehm, and Michael Sarvadi — formed Fourtek, Incorporated. Soon thereafter, Fourtek agreed to build a zinc recovery furnace for appellee Smith International, Incorporated (Smith). . . .

Metallurgical . . . brought a diversity action against Smith, Bielefeldt, Montesino, Boehm, and Sarvadi in November 1981. In its complaint, Metallurgical charged the defendants with misappropriating its trade secrets. . . . [Trial] testimony indicated Metallurgical’s frequent notices to Bielefeldt that the process was a secret and that the disclosures to him were made in confidence. Another witness recounted meetings in which the modifications were agreed to. Bielefeldt was allegedly unconvinced about the efficacy of these changes and contributed little to the discussion. Metallurgical also presented evidence that it had expended considerable time, effort, and money to modify the furnaces.

[The district court nonetheless granted defendants’ motions for directed verdicts.] The principal reason advanced was the court’s conclusion that no trade secret is involved. At trial, Metallurgical acknowledged that the individual changes, by themselves, are not secrets; chill plates and pump filters, for example, are well-known. Metallurgical’s position instead was that the process, taken as a whole, is a trade secret in the carbide business. The court, however, refused to recognize any protection Texas law provides to a modification process. It also concluded that the information

Bielefeldt obtained from working with Metallurgical is too general to be legally protected. Finally, it ruled that “negative know-how”—the knowledge of what not to do—is unprotected. . . .

III. Defining a “Trade Secret”

We begin by reviewing the legal definition of a trade secret. Of course, to qualify as one, the subject matter involved must, in fact, be a secret; “matters of general knowledge in an industry cannot be appropriated by one as his secret.” *Wissman v. Boucher*, 150 Tex. 326, 240 S.W.2d 278, 280 (Tex. 1951); *see also Zoecon Industries v. American Stockman Tag Co.*, 713 F.2d 1174, 1179 (5th Cir. 1983) (“a customer list of readily ascertainable names and addresses will not be protected as a trade secret”). Smith emphasizes the absence of any secret because the basic zinc recovery process has been publicized in the trade. Acknowledging the publicity of the zinc recovery process, however, we nevertheless conclude that Metallurgical’s particular modification efforts can be as yet unknown to the industry. A general description of the zinc recovery process reveals nothing about the benefits unitary heating elements and vacuum pump filters can provide to that procedure. That the scientific principles involved are generally known does not necessarily refute Metallurgical’s claim of trade secrets.

Metallurgical, furthermore, presented evidence to back up its claim. One of its main witnesses was Arnold Blum, a consultant very influential in the decisions to modify the furnaces. Blum testified as to his belief that Metallurgical’s changes were unknown in the carbide reclamation industry. The evidence also shows Metallurgical’s efforts to keep secret its modifications. Blum testified that he noted security measures taken to conceal the furnaces from all but authorized personnel. The furnaces were in areas hidden from public view, while signs warned all about restricted access. Company policy, moreover, required everyone authorized to see the furnace to sign a non-disclosure agreement. These measures constitute evidence probative of the existence of secrets. One’s subjective belief of a secret’s existence suggests that the secret exists. Security measures, after all, cost money; a manufacturer therefore presumably would not incur these costs if it believed its competitors already knew about the information involved. In *University Computing Co. v. Lykes-Youngstown Corp.*, 504 F.2d 518, 535 (5th Cir. 1974), we regarded subjective belief as a factor to consider in determining whether secrecy exists. Because evidence of security measures is relevant, that shown here helps us conclude that a reasonable jury could have found the existence of the requisite secrecy.

Smith argues, however, that Metallurgical’s disclosure to other parties vitiated the secrecy required to obtain legal protection. Metallurgical revealed its information to Consarc Corporation in 1978; it also disclosed information in 1980 to La Floridienne, its European licensee of carbide reclamation technology. Because both these disclosures occurred before Bielefeldt allegedly misappropriated the knowledge of modifi-

cations, others knew of the information when the Smith furnace was built. This being so, Smith argues, no trade secret in fact existed.

Although the law requires secrecy, it need not be absolute. Public revelation would, of course, dispel all secrecy, but the holder of a secret need not remain totally silent:

He may, without losing his protection, communicate to employees involved in its use. He may likewise communicate it to others pledged to secrecy. . . .

Nevertheless, a substantial element of secrecy must exist, so that except by the use of improper means, there would be difficulty in acquiring the information.

RESTATEMENT OF TORTS, §757 Comment *b* (1939). We conclude that a holder may divulge his information to a limited extent without destroying its status as a trade secret. To hold otherwise would greatly limit the holder's ability to profit from his secret. If disclosure to others is made to further the holder's economic interests, it should, in appropriate circumstances, be considered a limited disclosure that does not destroy the requisite secrecy. The only question is whether we are dealing with a limited disclosure here. . . .

Looking . . . to the policy considerations involved, we glean two reasons why Metallurgical's disclosures to others are limited and therefore insufficient to extinguish the secrecy Metallurgical's other evidence has suggested. First, the disclosures were not public announcements; rather, Metallurgical divulged its information to only two businesses with whom it was dealing. This case thus differs from *Luccous v. J. C. Kinley Co.*, 376 S.W.2d 336 (Tex. 1964), in which the court concluded that the design of a device could not be a trade secret because it had been patented — and thus revealed to all the world — before any dealing between the parties. Second, the disclosures were made to further Metallurgical's economic interests. Disclosure to Consarc was made with the hope that Consarc could build the second furnace. A long-standing agreement gave La Floridienne the right, as a licensee, to the information in exchange for royalty payments. Metallurgical therefore revealed its discoveries as part of business transactions by which it expected to profit.

Metallurgical's case would have been stronger had it also presented evidence of confidential relationships with these two companies, but we are unwilling to regard this failure as conclusively disproving the limited nature of the disclosures. Smith correctly points out that Metallurgical bears the burden of showing the existence of confidential relationships. Contrary to Smith's assertion, however, confidentiality is not a requisite; it is only a factor to consider. Whether a disclosure is limited is an issue the resolution of which depends on weighing many facts. The inference from those facts, construed favorably to Metallurgical, is that it wished only to profit from its secrets in its business dealings, not to reveal its secrets to the public. We therefore are unpersuaded by Smith's argument.

Existing law, however, emphasizes other requisites for legal recognition of a trade secret. In *Huffines*, 314 S.W.2d 763, a seminal case of trade secret law, Texas adopted the widely-recognized pronouncements of the American Law Institute's Restatement of the Law. The Texas Supreme Court quoted the Restatement's definition of a trade secret:

A trade secret may consist of any formula, pattern, device, or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device or a list of customers.

Id. at 776, quoting RESTATEMENT OF TORTS, §757 Comment *b* (1939). From this the criterion of value to the holder of the alleged secret arises. . . .

Metallurgical met the burden of showing the value of its modifications. Lawrence Lorman, the company's vice president, testified that the zinc recovery process gave Metallurgical an advantage over its two competitors by aiding in the production of the highest quality reclaimed carbide powder. The quality of the powder, in fact, makes it an alternative to the more costly virgin carbide. Lorman testified that customers regarded Metallurgical's zinc reclaimed powder as a better product than that reclaimed by the coldstream process used by others. This evidence clearly indicates that the modifications that led to the commercial operation of the zinc recovery furnace provided a clear advantage over the competition.

Another requisite is the cost of developing the secret device or process. In *Huffines'* companion case, *K&G Oil, Tool & Service Co. v. G&G Fishing Tool Service*, 158 Tex. 594, 314 S.W.2d 782, 790, 117 U.S.P.Q. (BNA) 471 (Tex. 1958), the court recognized the cost involved in developing the device in question; "the record shows . . . that much work and ingenuity have been applied to the development of a practical and successful device." *See also Zoecon Industries*, 713 F.2d at 1179 ("even if the names and addresses were readily ascertainable through trade journals as the defendants allege, the other information could be compiled only at considerable expense"). No question exists that Metallurgical expended much time, effort, and money to make the necessary changes. It clearly has met the burden of demonstrating the effort involved in making a complex manufacturing process work.

That the cost of devising the secret and the value the secret provides are criteria in the legal formulation of a trade secret shows the equitable underpinnings of this area of the law. It seems only fair that one should be able to keep and enjoy the fruits of his labor. If a businessman has worked hard, has used his imagination, and has taken bold steps to gain an advantage over his competitors, he should be able to profit from his efforts. Because a commercial advantage can vanish once the competition learns of it, the law should protect the businessman's efforts to keep his achievements se-

cret. As is discussed below, this is an area of law in which simple fairness still plays a large role.

We do not say, however, that all these factors need exist in every case. Because each case must turn on its own facts, no standard formula for weighing the factors can be devised. Secrecy is always required, of course, but beyond that there are no universal requirements. In a future case, for example, should the defendant's breach of confidence be particularly egregious, the injured party might still seek redress in court despite the possibility that the subject matter was discovered at little or no cost or that the object of secrecy is not of great value to him. The definition of "trade secret" will therefore be determined by weighing all equitable considerations. It is easy to recognize the possibility of a trade secret here, however, because Metallurgical presented evidence of all three factors discussed above. . . .

COMMENTS AND QUESTIONS

1. Sales of goods in mass retail markets are made to further the seller's economic interests. Under the rationale in *Fourtek*, why do such sales destroy the value of the secret?

2. If the defendants had acquired information about Metallurgical's process from Consarc or La Floridienne — the Metallurgical licensees — would the case have come out differently? Should it matter whether they acquired the information with knowledge that Metallurgical still considered it a trade secret?

3. The categories of information eligible for protection as trade secrets are quite expansive. As *Fourtek* makes clear, they include secret combinations of items which by themselves are publicly known. They also include both scientific and technical information and business information, such as customer lists and business plans. Can you think of any type of information that should not qualify for trade secret protection?

Note that eligibility for protection is only the first of many hurdles required to establish the existence of a trade secret. Many alleged trade secrets that are *eligible* for protection do not, in fact, receive protection because they do not meet one of the other standards described in this section. Courts have frequently held certain basic ideas or concepts incapable of protection as secrets because they were too well known to derive value from secrecy. For example, in *Buffets, Inc. v. Klinke*, 73 F.3d 765 (9th Cir. 1996), the court held that the plaintiff could not claim its relatively straightforward recipes for barbecued chicken and macaroni and cheese as trade secrets. On the other hand, in *Camp Creek Hospitality Inns v. Sheraton Franchise Corp.*, 139 F.3d 1396 (11th Cir. 1997), the court held that a hotel could protect information about its prices, discounts, and occupancy levels as a trade secret where it was closely guarded information in the industry. And in *Nextdoor.com, Inc. v. Abhyanker*, 2013 WL 3802526 (N.D. Cal. July 19, 2013), the court held that the decision to test a new neighborhood-

oriented social network in a particular neighborhood could be a trade secret where the plaintiff did substantial investigation before deciding that that neighborhood was a particularly appropriate one in which to launch the network.

4. Courts have made it clear that trade secrets need not be novel to receive trade secret protection. The idea may have occurred to someone before; it may even be in use by another. But if it is not generally known or readily ascertainable to the competitors in an industry, it may still qualify for trade secret protection. One widely cited decision described the standard for protectable ideas as follows:

[U]niqueness in the patent law sense is not an essential element of a trade secret, for the patent laws are designed to encourage invention, whereas trade secret law is designed to protect against a breach of faith. However, the trade secret must “possess at least that modicum of originality which will separate it from everyday knowledge.” *Cataphote Corporation v. Hudson*, 444 F.2d 1313, 1315 (5th Cir. 1971). As stated in an authoritative treatise on this subject:

As distinguished from a patent, a trade secret need not be essentially new, novel or unique; therefore, prior art is a less effective defense in a trade secret case than it is in a patent infringement case. The idea need not be complicated; it may be intrinsically simple and nevertheless qualify as a secret, unless it is in common knowledge and, therefore, within the public domain.

2 CALLMAN, UNFAIR COMPETITION, TRADEMARKS AND MONOPOLIES §52.1 (3d ed. 1968).

Forest Laboratories v. The Pillsbury Co., 425 F.2d 621, 624 (7th Cir. 1971). Some courts have gone even further, suggesting that “[a] trade secret may be no more than ‘merely a mechanical improvement that a good mechanic can make.’” *SI Handling Systems, Inc. v. Heisley*, 753 F.2d 1244, 1256 (3d Cir. 1985).

Why not require novelty in order to protect a trade secret? That is, why should the law protect the “secrecy” of a piece of information if others have already discovered it?

5. The Restatement of Torts offers further guidance in determining whether information constitutes a trade secret. It lists six factors to be considered:

- The extent to which the information is known outside the claimant’s business.
- The extent to which it is known by employees and others involved in the business.
- The extent of measures taken by the claimant to guard the secrecy of the information.
- The value of the information to the business and its competitors.

- The amount of effort or money expended by the business in developing the information.
- The ease or difficulty with which the information could be properly acquired or duplicated by others.

To be protectable, information must not be “generally known” or “readily ascertainable” by competitors in an industry. *See Burbank Grease Servs. v. Sokolowski*, 693 N.W.2d 89 (Wis. Ct. App. 2005) (Burbank’s list of potential customers was readily ascertainable from the Internet, trade associations, and by asking customers whom to contact), *reversed on other grounds*, 717 N.W.2d 781 (Wis. 2006).

6. Why should we bother to protect secrets that were stumbled upon with little or no investment in research but that happen to have “value”? Does the economic rationale for intellectual property suggest that such secrets will be underproduced absent protection?

7. Why is secrecy required at all? Trade secrets are not misappropriated unless information is taken by improper means or from a confidential relationship. Why aren’t those tortious elements enough? It is certainly possible to envision a “misappropriation” tort that punishes diversion of information, whether or not it is secret. Indeed, some controversial cases discussed in Chapter VI have created just such a common law tort. In addition to the cases cited there, *see United States Sporting Products v. Johnny Stewart Game Calls*, 865 S.W.2d 214 (Tex. App. 1993) (publicly sold uncopyrighted recordings protectable under a “labor theory”); Note, *The “Genetic Message” from the Cornfields of Iowa: Expanding the Law of Trade Secrets*, 38 DRAKE L. REV. 631 (1989) (describing a similar case involving publicly sold grain).

One possible objection to such a scheme is that it may chill the legitimate acquisition of information from competitors. But the only information protected by a misappropriation tort that is not also protected by trade secret law is public information. Since it is public, the need for competitors to acquire it directly from another company or through dubious means is presumably low.⁴

⁴ Another reason for limiting common law protection to secret information may be concern over preemption of state common law by the federal intellectual property laws. While the course of the law is not completely clear, federal courts have generally held that state laws that create property rights in public information are preempted by the patent and copyright laws. The policy being served by preemption is to protect the balance struck by federal intellectual property laws. *See, e.g., Synercom Technology v. University Computing Co.*, 474 F. Supp. 37 (N.D. Tex. 1979) (state unfair competition laws cannot prevent copying of public information). There are two rationales for such preemption. First, it may be that the federal laws reflect a judgment that unpatentable inventions ought to belong to the public. On this rationale, *see Bonito Boats v. Thunder Craft Boats*, 489 U.S. 141 (1989). Second, preemption may serve to erect barriers between different types of intellectual property protection, “channeling” inventions into one or another form of protection. We discuss federal preemption in more detail in Chapters II(H), III(J), and VI(A).

But there may be a wide gulf between “secret” information and “public” information. If three large companies all use the same process but guard it closely, is it a secret? If a company guards a process closely as a secret, but an account of the process is available in an obscure published source, does the company have a protectable trade secret? Does it matter how obscure the published source is, if the defendant, in fact, obtains the information from the plaintiff rather than going to the public source? What theory of trade secrets would support a finding of liability in such a case? For an argument that the secrecy requirement actually encourages wider disclosure by allowing companies to rely on the law rather than on more stringent physical protections, see Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61 STAN. L. REV. 311 (2008).

In *Rohm & Haas Co. v. Adco Chemical Co.*, 689 F.2d 424 (3d Cir. 1982), defendant Harvey was a former Rohm & Haas employee who was hired by Adco to duplicate a process for producing “paint delivery vehicles,” the chemicals added to paint that allow it to be applied to surfaces easily. There seems no question in the case that Harvey did, in fact, memorize the plaintiff’s formula and take it to Adco. In their defense, the defendants offered evidence that a series of prior publications had, in fact, disclosed Rohm & Haas’s “secret” process. The court nonetheless concluded that it was a protectable trade secret, in part because the defendants *did not in fact* obtain the information from those publications. Why should this matter? Certainly the defendants’ conduct proves that they took the information from the plaintiff, but that should be irrelevant if the plaintiff does not have a protectable secret. Has the *Rohm & Haas* court in effect abolished the requirement of secrecy by requiring only that the defendants in fact obtain the information from the plaintiff?

Rohm & Haas is at the center of a critical debate in trade secret law: whether information must actually be “known” to competitors or merely be “knowable” for the court to conclude that it is not secret. Many courts following the Restatement of Torts have taken the former view, as *Rohm & Haas* does. This view gives broad scope to trade secret law, because it allows a plaintiff to protect information that could have been acquired properly but in fact was not. It also underscores the unfair competition rationale for trade secret protection — the problem is not that the defendant acquired the information at all, but the way in which it was acquired.

In a significant break with the old Restatement rule, the Uniform Trade Secrets Act provides that information is not a trade secret if it is “generally known” or “readily ascertainable by proper means.”⁵ Under this view, once a secret is readily available through public sources, it loses all trade secret protection. At this point, the defendant is free to obtain the information from the public source *or from the plaintiff herself*. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION §39, Comment *f*, at 433 (“When

⁵ California, by contrast, treats ready ascertainability as a defense, not part of the plaintiff’s case. See Cal. Civ. Code §3426.1(d)(1); *ABBA Rubber Co. v. Seaquist*, 286 Cal. Rptr. 518 (Ct. App. 1991).

the information is readily ascertainable from such [public] sources, however, actual resort to the public domain is a formality that should not determine liability.”).

Even jurisdictions that follow the RESTATEMENT OF TORTS view place some limit on what can qualify for trade secret protection. If information is generally known to the public, or even within a specialized industry, it does not qualify for protection. No company can claim that “ $E=mc^2$ ” is a trade secret, for example, even if it keeps the formula under lock and key, and even if the defendant steals it from the company rather than obtaining it elsewhere. *See Spring Indus. v. Nicolozakes*, 58 U.S.P.Q.2d 1794 (Ohio Ct. App. 2000) (information on gravel mining not a trade secret despite efforts to keep it confidential). We consider the rather different issue of whether two parties could *agree* to treat the formula as a secret in (D), *infra*.

8. What relevance do the competing theories of trade secret protection have for the known vs. knowable debate? If the purpose of trade secret law is to promote innovation, why should a company be entitled to protect an idea that already exists in the literature and can readily be found there? On the other hand, doesn’t the tort theory compel the conclusion that a company should be able to protect an idea against being stolen *from it*, even if the idea is commonly known elsewhere?

9. The Restatement factors used in *Forest Labs* seem to focus on how widely the information is known, suggesting that information used by many people cannot be a secret. The secrecy requirement, therefore, may reflect a policy judgment in favor of the distribution of information once it has reached a certain “critical mass.” *Metallurgical Industries*, by contrast, focuses on attempts to prevent disclosure of the information. This approach suggests that even widely known information (or published information, as that in *Metallurgical Industries* was) may receive trade secret protection.

Compare the definition of a trade secret offered in the new RESTATEMENT (THIRD) OF UNFAIR COMPETITION:

A trade secret is any information that can be used in the operation of a business or other enterprise and that is sufficiently valuable and secret to afford an actual or potential economic advantage over others.

RESTATEMENT (THIRD) OF UNFAIR COMPETITION §39. Under the new Restatement, many different companies can possess the same information and each protect it as a secret. *Id.* at illustration 1.⁶ In a comment interpreting this provision, the drafters note that “[t]he concept of a trade secret as defined in this Section is intended to be con-

⁶. The Restatement does note, however, that “[w]hen information is no longer sufficiently secret to qualify for protection as a trade secret, its use should not serve as a basis for the imposition of liability,” *id.* at 433, Comment *f*, suggesting that at some point information is not secret even though companies protect it as if it were.

sistent with the definition of ‘trade secret’ in §1(4) of the [Uniform Trade Secrets Act.] Is it?

10. Because the definition of trade secrets is so broad, courts are often confronted with arguments that a general combination of information in the plaintiff’s product is a secret but that do not specify the actual secrets alleged to be taken. Some courts have required that the plaintiff identify the secrets in question with specificity. *See, e.g., SL Montevideo Tech., Inc. v. Eaton Aerospace, LLC*, 491 F.3d 350, 354 (8th Cir. 2007) (“[s]imply to assert that a trade secret resides in some combination of otherwise known data is not sufficient, as the combination itself must be delineated with some particularity in establishing its trade secret status.”); Cal. Code Civ. Proc. 2019.210 (requiring plaintiff to identify the trade secrets with particularity before trial).

PROBLEMS

Problem II-1. Company *X* possesses a valuable piece of information about the process for making its product. That information is not known at all outside company *X*. Suppose *X* discloses the information to two companies, *A* and *B*. *A* receives the information in confidence, and subject to a written agreement that it will not use or disclose the information outside the bounds of the relationship. *B* receives the information without any restrictions whatever on its use. Does *X* have a protectable trade secret that it can assert against *A*? Against *B*? Against *C*, who steals the information from *X*’s computer network?

Does your answer change if *X*, *A*, *B*, and *C* are the only companies in the industry?

Problem II-2. StartUp, Inc., is the only participant in a new market. The market is based on a product for which StartUp has a non-exclusive license from the inventor; that is, StartUp cannot prevent others from obtaining a similar license. Nonetheless, StartUp has exhaustively researched the demand for the product, has concluded that a market exists, and has worked to stimulate demand. As a result, it has both “made” a market for the product and developed a comprehensive list of customers.

Thaddeus, a sales representative for StartUp, leaves to found his own company. He gets a license to make the product from its inventor. He takes with him from StartUp the customer list he worked with as an employee, his personal knowledge of and contacts with specific customers, and StartUp’s knowledge of the market. StartUp sues Thaddeus for misappropriation of trade secrets. What result?

Problem II-3. Research Co. is a major pharmaceutical company working on a cure for certain types of cancer. Derek is a molecular biologist employed by Research. After several years on the job, Derek leaves Research for Conglomerate, Inc., another pharmaceutical company, which has decided to work on the same cancer

cure. At the time Derek leaves, Research has not been successful in finding a cancer cure. However, as a result of his work at Research, Derek is able to help Conglomerate avoid several unproductive avenues of research. Aided in part by this knowledge, Conglomerate (using scientists other than Derek) develops a cancer cure before Research. Research sues Conglomerate, alleging misappropriation of trade secrets. Does Research have a case?

Problem II-4. The Church of True Belief is a religious group founded around a set of closely guarded scriptural materials supposedly handed down to Church's elders from Church's deity. After a bitter theological dispute, a group of adherents leaves the church to form the House of Absolute Belief. They take with them a copy of Church's confidential scriptures, which they rely on in gaining adherents and founding the new House. Church sues House for misappropriation of trade secrets.

At trial, the issue is whether the scriptures qualify as a trade secret. The evidence indicates that the scriptures had never before been removed from the confines of Church, that both Church and House are tax-exempt nonprofit organizations which rely on donations for their funding, and that Church (but not House) rations access to the scriptures in proportion to the size of an adherent's donation.

Can the scriptures qualify as a trade secret? Does your answer depend on whether the governing law is the UTSA, the Restatement of Torts, or the Restatement (Third) of Unfair Competition?

Problem II-5. Pear Computer Corporation, known for its obsessive secrecy, password protects all its files. Can the password itself be a trade secret? Does it matter whether the UTSA or the Restatement applies?

2. Reasonable Efforts to Maintain Secrecy

Besides the existence of a trade secret, plaintiffs must show under the Uniform Act that they have taken "reasonable measures" to protect the secrecy of their idea. Certainly, a plaintiff cannot publicly disclose the secret and still expect to protect it. But precautions must go further than that. Generally, they must include certain efforts to prevent theft or use of the idea by former employees.

Rockwell Graphic Systems, Inc. v. DEV Industries, Inc.
United States Court of Appeals for the Seventh Circuit
925 F.2d 174 (7th Cir. 1991)

POSNER, Circuit Judge:

This is a suit for misappropriation of trade secrets. Rockwell Graphic Systems, a manufacturer of printing presses used by newspapers, and of parts for those presses,

brought the suit against DEV Industries, a competing manufacturer, and against the president of DEV, who used to be employed by Rockwell. . . .

When we said that Rockwell manufactures both printing presses and replacement parts for its presses — “wear parts” or “piece parts,” they are called — we were speaking approximately. Rockwell does not always manufacture the parts itself. Sometimes when an owner of one of Rockwell’s presses needs a particular part, or when Rockwell anticipates demand for the part, it will subcontract the manufacture of it to an independent machine shop, called a “vendor” by the parties. When it does this it must give the vendor a “piece part drawing” indicating materials, dimensions, tolerances, and methods of manufacture. Without that information the vendor could not manufacture the part. Rockwell has not tried to patent the piece parts. It believes that the purchaser cannot, either by inspection or by “reverse engineering” (taking something apart in an effort to figure out how it was made), discover how to manufacture the part; to do that you need the piece part drawing, which contains much information concerning methods of manufacture, alloys, tolerances, etc. that cannot be gleaned from the part itself. So Rockwell tries — whether hard enough is the central issue in the case — to keep the piece part drawings secret, though not of course from the vendors; they could not manufacture the parts for Rockwell without the drawings. DEV points out that some of the parts are for presses that Rockwell no longer manufactures. But as long as the presses are in service — which can be a very long time — there is a demand for replacement parts.

Rockwell employed Fleck and Peloso in responsible positions that gave them access to piece part drawings. Fleck left Rockwell in 1975 and three years later joined DEV as its president. Peloso joined DEV the following year after being fired by Rockwell when a security guard caught him removing piece part drawings from Rockwell’s plant. This suit was brought in 1984, and pretrial discovery by Rockwell turned up 600 piece part drawings in DEV’s possession, of which 100 were Rockwell’s. DEV claimed to have obtained them lawfully, either from customers of Rockwell or from Rockwell vendors, contrary to Rockwell’s claim that either Fleck and Peloso stole them when they were employed by it or DEV obtained them in some other unlawful manner, perhaps from a vendor who violated his confidentiality agreement with Rockwell. Thus far in the litigation DEV has not been able to show which customers or vendors lawfully supplied it with Rockwell’s piece part drawings.

The defendants persuaded the magistrate and the district judge that the piece part drawings weren’t really trade secrets at all, because Rockwell made only perfunctory efforts to keep them secret. Not only were there thousands of drawings in the hands of the vendors; there were thousands more in the hands of owners of Rockwell presses, the customers for piece parts. The drawings held by customers, however, are not relevant. They are not piece part drawings, but assembly drawings. . . . An assembly drawing shows how the parts of a printing press fit together for installation and also

how to integrate the press with the printer's other equipment. Whenever Rockwell sells a printing press it gives the buyer assembly drawings as well. These are the equivalent of instructions for assembling a piece of furniture. Rockwell does not claim that they contain trade secrets. It admits having supplied a few piece part drawings to customers, but they were piece part drawings of obsolete parts that Rockwell has no interest in manufacturing and of a safety device that was not part of the press as originally delivered but that its customers were clamoring for; more to the point, none of these drawings is among those that Rockwell claims DEV misappropriated.

... DEV's main argument is that Rockwell was impermissibly sloppy in its efforts to keep the piece part drawings secret.

On this, the critical, issue, the record shows the following. (Because summary judgment was granted to DEV, we must construe the facts as favorably to Rockwell as is reasonable to do.) Rockwell keeps all its engineering drawings, including both piece part and assembly drawings, in a vault. Access not only to the vault, but also to the building in which it is located, is limited to authorized employees who display identification. These are mainly engineers, of whom Rockwell employs 200. They are required to sign agreements not to disseminate the drawings, or disclose their contents, other than as authorized by the company. An authorized employee who needs a drawing must sign it out from the vault and return it when he has finished with it. But he is permitted to make copies, which he is to destroy when he no longer needs them in his work. The only outsiders allowed to see piece part drawings are the vendors (who are given copies, not originals). They too are required to sign confidentiality agreements, and in addition each drawing is stamped with a legend stating that it contains proprietary material. Vendors, like Rockwell's own engineers, are allowed to make copies for internal working purposes, and although the confidentiality agreement that they sign requires the vendor to return the drawing when the order has been filled, Rockwell does not enforce this requirement. The rationale for not enforcing it is that the vendor will need the drawing if Rockwell reorders the part. Rockwell even permits unsuccessful bidders for a piece part contract to keep the drawings, on the theory that the high bidder this round may be the low bidder the next. But it does consider the ethical standards of a machine shop before making it a vendor, and so far as appears no shop has ever abused the confidence reposed in it.

The mere fact that Rockwell gave piece part drawings to vendors—that is, disclosed its trade secrets to “a limited number of outsiders for a particular purpose”—did not forfeit trade secret protection. On the contrary, such disclosure, which is often necessary to the efficient exploitation of a trade secret, imposes a duty of confidentiality on the part of the person to whom the disclosure is made. But with 200 engineers checking out piece part drawings and making copies of them to work from, and numerous vendors receiving copies of piece part drawings and copying them, tens of thousands of copies of these drawings are floating around outside Rockwell's vault,

and many of these outside the company altogether. Although the magistrate and the district judge based their conclusion that Rockwell had not made adequate efforts to maintain secrecy in part at least on the irrelevant fact that it took no efforts at all to keep its assembly drawings secret, DEV in defending the judgment that it obtained in the district court argues that Rockwell failed to take adequate measures to keep even the piece part drawings secret. Not only did Rockwell not limit copying of those drawings or insist that copies be returned; it did not segregate the piece part drawings from the assembly drawings and institute more secure procedures for the former. So Rockwell could have done more to maintain the confidentiality of its piece part drawings than it did, and we must decide whether its failure to do more was so plain a breach of the obligation of a trade secret owner to make reasonable efforts to maintain secrecy as to justify the entry of summary judgment for the defendants.

The requirement of reasonable efforts has both evidentiary and remedial significance . . .

[T]he plaintiff must prove that the defendant obtained the plaintiff's trade secret by a wrongful act, illustrated here by the alleged acts of Fleck and Peloso in removing piece part drawings from Rockwell's premises without authorization, in violation of their employment contracts and confidentiality agreements, and using them in competition with Rockwell. Rockwell is unable to prove directly that the 100 piece part drawings it got from DEV in discovery were stolen by Fleck and Peloso or obtained by other improper means. But if it can show that the probability that DEV could have obtained them otherwise — that is, without engaging in wrongdoing — is slight, then it will have taken a giant step toward proving what it must prove in order to recover under the first theory of trade secret protection. The greater the precautions that Rockwell took to maintain the secrecy of the piece part drawings, the lower the probability that DEV obtained them properly and the higher the probability that it obtained them through a wrongful act; the owner had taken pains to prevent them from being obtained otherwise.

. . . . If Rockwell expended only paltry resources on preventing its piece part drawings from falling into the hands of competitors such as DEV, why should the law, whose machinery is far from costless, bother to provide Rockwell with a remedy? The information contained in the drawings cannot have been worth much if Rockwell did not think it worthwhile to make serious efforts to keep the information secret.

The remedial significance of such efforts lies in the fact that if the plaintiff has allowed his trade secret to fall into the public domain, he would enjoy a windfall if permitted to recover damages merely because the defendant took the secret from him, rather than from the public domain as it could have done with impunity. It would be like punishing a person for stealing property that he believes is owned by another but that actually is abandoned property. If it were true, as apparently it is not, that Rock-

well had given the piece part drawings at issue to customers, and it had done so without requiring the customers to hold them in confidence, DEV could have obtained the drawings from the customers without committing any wrong. The harm to Rockwell would have been the same as if DEV had stolen the drawings from it, but it would have had no remedy, having parted with its rights to the trade secret. . . .

It is easy to understand therefore why the law of trade secrets requires a plaintiff to show that he took reasonable precautions to keep the secret a secret. If analogies are needed, one that springs to mind is the duty of the holder of a trademark to take reasonable efforts to police infringements of his mark, failing which the mark is likely to be deemed abandoned, or to become generic or descriptive (and in either event be unprotectable). The trademark owner who fails to police his mark both shows that he doesn't really value it very much and creates a situation in which an infringer may have been unaware that he was using a proprietary mark because the mark had drifted into the public domain, much as DEV contends Rockwell's piece part drawings have done.

But only in an extreme case can what is a "reasonable" precaution be determined on a motion for summary judgment, because the answer depends on a balancing of costs and benefits that will vary from case to case and so require estimation and measurement by persons knowledgeable in the particular field of endeavor involved. On the one hand, the more the owner of the trade secret spends on preventing the secret from leaking out, the more he demonstrates that the secret has real value deserving of legal protection, that he really was hurt as a result of the misappropriation of it, and that there really was misappropriation. On the other hand, the more he spends, the higher his costs. The costs can be indirect as well as direct. The more Rockwell restricts access to its drawings, either by its engineers or by the vendors, the harder it will be for either group to do the work expected of it. Suppose Rockwell forbids any copying of its drawings. Then a team of engineers would have to share a single drawing, perhaps by passing it around or by working in the same room, huddled over the drawing. And how would a vendor be able to make a piece part — would Rockwell have to bring all that work in house? Such reconfigurations of patterns of work and production are far from costless; and therefore perfect security is not optimum security.

There are contested factual issues here, bearing in mind that what is reasonable is itself a fact for purposes of Rule 56 of the civil rules. Obviously Rockwell took some precautions, both physical (the vault security, the security guards — one of whom apprehended Peloso in flagrante delicto) and contractual, to maintain the confidentiality of its piece part drawings. Obviously it could have taken more precautions. But at a cost, and the question is whether the additional benefit in security would have exceeded that cost. . . .

Reversed and remanded.

COMMENTS AND QUESTIONS

1. There is an intuitive relationship between the existence of a secret and reasonable efforts to protect a secret. After all, if something is not a secret, there would not seem to be any point to protecting it. And the fact that an idea is well protected may be evidence that it is, in fact, a secret. Nonetheless, the requirements are conceptually distinct. Information in the public domain cannot be turned into a secret merely by treating it as a secret, a point that lawyers and even courts sometimes forget. This distinction is made clear in the Uniform Trade Secrets Act, which defines a trade secret as information that is both “not generally known” *and* the subject of reasonable efforts to maintain secrecy. UTSA §1(4).

Consider whether the opinion in *Rockwell* conflates these two into a single requirement. The court seems to emphasize the evidentiary significance of the precautions Rockwell took in proving misappropriation. Since it was clear (to the court, at least) that the DEV employees did, in fact, take the information from Rockwell, the court did not consider the precautions to be that important. The RESTATEMENT (THIRD) OF UNFAIR COMPETITION seems to follow this approach. Unlike the Uniform Act, the new Restatement does not contain a separate requirement that plaintiffs take reasonable precautions to protect their secrets. The comment to §39 takes the position that, while “[p]recautions taken to maintain the secrecy of information are relevant in determining whether the information qualifies for protection as a trade secret,” “if the value and secrecy of the information are clear, evidence of specific precautions taken by the trade secret owner may be unnecessary.” RESTATEMENT (THIRD) OF UNFAIR COMPETITION §39, Comment g, at 435-36.

Contrast *Rockwell* with the Minnesota Supreme Court’s decision in *Electro-Craft Corp. v. Controlled Motion, Inc.*, 332 N.W.2d 890 (Minn. 1983), a case that also involved information taken by former employees and used in starting a competing company. The court found that the information the employees took was not generally known or readily ascertainable in the industry. However, it found that the information did not constitute a trade secret:

(c) Reasonable efforts to maintain secrecy. It is this element upon which [plaintiff Electro-Craft Corp., or “ECC”]’s claim founders. The district court found that, even though ECC had no “meaningful security provisions,” ECC showed an intention to keep its data and processes secret. This finding does not bear upon the statutory requirement that ECC use “efforts that are reasonable under the circumstances to maintain . . . secrecy.” Minn. Stat. §325C.01, subd. 5(ii). . . . [E]ven under the common law, more than an “intention” was required — the plaintiff was required to show that it had manifested that intention by making some effort to keep the information secret.

This element of trade secret law does not require maintenance of absolute secrecy; only partial or qualified secrecy has been required under the common

law. What is actually required is conduct which will allow a court acting in equity to enforce plaintiff's rights. . . .

In the present case, even viewing the evidence most favorably to the findings below, we hold that ECC did not meet its burden of proving that it used reasonable efforts to maintain secrecy as to [the subject matter of the suit, a product called the ECC 1125]. We acknowledge that ECC took minimal precautions in screening its Handbook and publications for confidential information and by requiring some of its employees to sign a confidentiality agreement, but these were not enough.

First, ECC's physical security measures did not demonstrate any effort to maintain secrecy. By "security" we mean the protection of information from discovery by outsiders. Security was lax in this case. For example, the main plant had a few guarded entrances, but seven unlocked entrances existed without signs warning of limited access. Employees were at one time required to wear badges, but that system was abandoned by the time of the events giving rise to this case. The same was generally true of the Amery, Wisconsin plant where ECC 1125 and brushless motors were manufactured. One sign was posted at each plant, however, marking the research and development lab at Hopkins and the machine shop at Amery as restricted to "authorized personnel." Discarded drawings and plans for motors were simply thrown away, not destroyed. Documents such as motor drawings were not kept in a central or locked location, although some design notebooks were kept locked.

The relaxed security by itself, however, does not preclude a finding of reasonable efforts by ECC to maintain secrecy. Other evidence did not indicate that industrial espionage is a major problem in the servo motor industry. Therefore, "security" measures may not have been needed, and the trial court could have found trade secrets if ECC had taken other reasonable measures to preserve secrecy.

However, ECC's "confidentiality" procedures were also fatally lax, and the district court was clearly in error in finding ECC's efforts to be reasonable. By "confidentiality" in this case we mean the procedures by which the employer signals to its employees and to others that certain information is secret and should not be disclosed. Confidentiality was important in this case, for testimony demonstrated that employees in the servo motor business frequently leave their employers in order to produce similar or identical devices for new employers. ECC has hired many employees from other corporations manufacturing similar products.⁷ If ECC wanted to prevent its employees from doing the

⁷ One ECC employee actually prided himself on the information he had brought with him from his former employer. One day, just before that employee left ECC to join another company, the president

same thing, it had an obligation to inform its employees that certain information was secret.

ECC's efforts were especially inadequate because of the non-intuitive nature of ECC's claimed secrets here. The dimensions, etc., of ECC's motors are not trade secrets in as obvious a way as a "secret formula" might be. ECC should have let its employees know in no uncertain terms that those features were secret.

Instead, ECC treated its information as if it were not secret. None of its technical documents were marked "Confidential," and drawings, dimensions and parts were sent to customers and vendors without special marking. Employee access to documents was not restricted. ECC never issued a policy statement outlining what it considered secret. Many informal tours were given to vendors and customers without warnings as to confidential information. Further, two plants each had an "open house" at which the public was invited to observe manufacturing processes. . . .

In summary, ECC has not met its burden of proof in establishing the existence of any trade secrets. The evidence does not show that ECC was ever consistent in treating the information here as secret.

Elsewhere, the *ECC* court noted that the information in question was not in fact known at all outside ECC. Given that, why shouldn't the company be able to prevent its employees from using the information they acquired there? Should the laxity of ECC's precautions matter if no one other than the defendants, in fact, took advantage of it?

2. In *Rockwell*, the court apparently assumed that the manufacturer was in a confidential relationship with the subcontractors to which it sent drawings. Is it reasonable to assume that there was an implied relationship of confidentiality in the absence of an express agreement? Two decisions by the Ninth Circuit set the parameters of this debate. In *Entertainment Research Group v. Genesis Creative Group*, 122 F.3d 1211 (9th Cir. 1997), the court found no confidential relationship between a manufacturer of inflatable costumes and the marketing firm hired to distribute them. By contrast, in *IMAX Corp. v. Cinema Technologies*, 152 F.3d 1161 (9th Cir. 1998), the court concluded that the proprietor of an IMAX movie theater had a duty to IMAX to protect the specifications of the projector as trade secrets from a competitor who was attempting to reverse engineer the IMAX technology.

3. How much effort should be required of trade secret owners? Obviously, the best way to protect a secret is not to tell anyone at all. In the modern commercial world, however, this is normally impractical. Companies with trade secrets must tell

of ECC found him copying documents after hours. ECC never questioned the employee or warned him or his new employer that certain information was confidential.

the secret to their employees, their business partners, and often their distributors and customers as well. But the risk of *inadvertent* use or disclosure can be reduced in a number of ways: for example, by requiring employees, licensees, and even customers to sign confidentiality agreements; by investing in physical security measures against theft, such as fences, safes, and guards; and by designing products themselves so that they do not reveal their secrets upon casual (or even detailed) inspection. The First Circuit has held that “affirmative steps” to protect secrecy, not merely “ordinary discretion,” are required. *Incase Inc. v. Timex Corp.*, 488 F.3d 46 (1st Cir. 2007).

4. Will reasonable precautions always be a question of fact? Or are certain activities (publishing a secret formula, for example) so inconsistent with trade secret protection that they automatically preclude a successful trade secret suit? *See* Chapter II(B)(3) (discussing disclosure of trade secrets).

One issue that often arises is whether companies that sell products on the open market which embody their trade secret have disclosed the secret. As we shall see, customers who buy a product on the open market are entitled to break it apart to see how it works. This process is called “reverse engineering” the product. Trade secret law does not protect owners against legitimate purchasers who discover the secret through reverse engineering, absent a valid nondisclosure agreement. But does the possibility that a product might be reverse engineered foreclose *any* trade secret protection, even against people who have not actually reverse engineered the product? At least one court has said no. In *Data General Corp. v. Grumman Systems Support Corp.*, 825 F. Supp. 340, 359 (D. Mass. 1993), the court upheld a jury’s verdict that Grumman had misappropriated trade secrets contained in object code form in Data General’s computer program, despite the fact that many copies of the program had been sold on the open market. The court reasoned: “With the exception of those who lawfully licensed or unlawfully misappropriated MV/ADEX, Data General enjoyed the exclusive use of MV/ADEX. Even those who obtained MV/ADEX and were able to *use* MV/ADEX were unable to discover its trade secrets because MV/ADEX was distributed only in its object code form, which is essentially unintelligible to humans.”

Data General suggests that reasonable efforts to protect the secrecy of an idea contained in a commercial product — such as locks, black boxes, or the use of unreadable code—may suffice to maintain trade secret protection even after the product itself is widely circulated. Does this result make sense?

On the basis of the reasoning in *Data General*—that the source code, which contained the secrets, was not widely disclosed—would the distribution of the Data General software in object code form to the general public constitute misappropriation of those trade secrets?

5. If the idea is to encourage investment in trade secrets, why require any degree of “reasonable precautions” at all? One sometimes hears in this regard that *all* “fenc-

ing” expenditures are inefficient. Cf. Edmund W. Kitch, *The Law and Economics of Rights in Valuable Information*, 9 J. LEGAL STUD. 683 (1980) (arguing that reasonable precautions make sense only as evidence of the existence of a trade secret). Why not simply require explicit notice — large neon signs, stamps on all documents, or publication of a secrecy policy — in place of physical precautions? For a suggestion that proceeds along these lines to some extent, see J.H. Reichman, *Legal Hybrids Between the Patent and Copyright Paradigms*, 94 COLUM. L. REV. 2432 (1994).

Is it appropriate to punish the creator of a valuable secret who has not invested in “reasonable precautions”? What value is there in a legal rule that requires investment in precautions up to the level that would be rational in the absence of the legal rule? Are prospective trade secret thieves actually encouraged by the reasonable precautions argument to steal ideas when they observe a lapse in security, and does this rule give them an incentive to search out such lapses? Professor Kitch asks the related question of why these expenses should be required in addition to the expense of bringing a trade secret lawsuit.

Professor David Friedman, Professor William Landes, and Judge Richard Posner make the related point that a trade secret cause of action which yields a legal remedy ought to be available when it is cheaper than the physical precautions that would be necessary to protect a piece of information. See David Friedman, William Landes & Richard Posner, *Some Economics of Trade Secret Law*, 5 J. ECON. PERSPECTIVES 61, 67 (1991). They note further that where “the social costs of enforcing secrecy through the legal system would be high, the benefits of shared information are likely to exceed the net benefits of legal protection.”

Should it be a defense to a trade secret action that the plaintiff could more easily have protected the secret through physical precautions?

Professor Kitch notes by way of analogy that we do not prohibit criminal complaints for larceny just because a property owner was careless. (On the other hand, many states do reduce recovery in tort suits for “comparative negligence.”) He also suggests that reasonable precautions are required only to put prospective infringers on notice about the existence of a right and to serve as evidence of the fact that the secret is worth protecting legally. The fencing thus serves a notice function, akin to “marking” products with patent numbers, copyright symbols, or trademark symbols. Kitch, *supra*, at 698.

The Court in *duPont & Co. v. Christopher*, 431 F.2d 1012 (5th Cir. 1970), pays significant attention to the role of fencing costs in trade secrets suits. We will return to that case when we consider misappropriation of trade secrets. See Chapter II(C).

One might imagine other rationales for requiring reasonable protection. For example, one might treat the requirement of reasonable precautions as serving a gatekeeper function that helps to weed out frivolous trade secret claims by requiring evidence of investment by the plaintiff in protecting the secret.

PROBLEMS

Problem II-6. Smith, a bar owner in rural Alabama, develops by accident one night the relatively simple formula for a new alcoholic beverage. The drink is simply a mixture of three common ingredients. Smith begins selling the drink, which he calls “Mobile Mud,” in his bar. However, he instructs his bartenders not to reveal the formula to anyone and has them premix “Mud” in the back of the bar, out of sight of customers. Smith is outraged when he learns that Jimmy Dean, an international distributor of alcoholic beverages, has copied his formula and is marketing it under a different name. At trial, Dean employees and independent experts unanimously testify that it is possible for someone with experience in the beverage industry to determine the formula for Mud by looking at, smelling and tasting the drink.

Has Smith taken reasonable precautions? What more could he have done to protect the “secret formula” of Mobile Mud? Is the secret so obvious to consumers that selling the product on the open market destroys protection? Does your opinion of the case change if you learn that Dean’s representative went to Smith’s bar and bribed a bartender to disclose the formula?

Problem II-7. MidContinent is a small manufacturer of signs and decals. It has only five employees, two of whom are father and son and two more of whom are family friends. The company describes itself as having a “relaxed, congenial” working atmosphere. In order to avoid what the president considers excessive formality, the employees have never been required to sign confidentiality agreements, and documents kept within the company aren’t stamped confidential. The company has never conducted “exit interviews” or instructed its employees about trade secrecy. According to the company president, “we trust our employees, and that trust has never been misplaced.” On the other hand, the company does take certain steps to keep outsiders from accessing its customer lists and its adhesive manufacturing process. And there is little history of economic espionage in the decal-manufacturing business. Has MidContinent taken reasonable efforts to protect its secrets? Should it matter whether the party accused of stealing those secrets is an employee or an outsider?

3. Disclosure of Trade Secrets

It is axiomatic that public disclosure of a trade secret destroys the “secret,” and therefore ends protection forever. The corollary to this rule is that as long as a trade secret remains secret, it is protectable. Thus, trade secrets do not last for a specific term of years but continue indefinitely until the occurrence of a particular event — the public disclosure of the secret. Disclosure of a once-protected trade secret can occur in several ways:

i. Voluntary Disclosure by the Trade Secret Owner

A trade secret owner may publish the secret, whether in an academic journal or any other forum. In that case, secrecy is lost, at least provided the publication is accessible to those interested in the subject matter. This loss might reasonably be considered a substantial disincentive to publication of scientific or technical advances. But publication of secret information regularly occurs, either because the inventors have not thought through the consequences of their actions or because the value or prestige of first publication is deemed to outweigh the potential loss of commercial trade secret protection.

One common form of disclosure is the publication of an issued patent. Because (as we shall see) patent law requires the public disclosure of an invention with sufficient specificity to enable one of ordinary skill in the art to make it, obtaining a patent on an invention destroys trade secret protection. *See Tewari De-Ox Sys. v. Mountain States*, 637 F.3d 604 (5th Cir. 2011); *Ferrolene Corp. v. General Aniline & Film Corp.*, 207 F.2d 912 (7th Cir. 1953). Thus, an inventor must “elect” either patent or trade secret protection, for the two cannot protect the same invention simultaneously.

The Federal Circuit applied a notable exception to this seemingly absolute rule in *Rhone-Poulenc Agro v. DeKalb Genetics Corp.*, 272 F.3d 1335 (Fed. Cir. 2001). In that case, the defendant had stolen the plaintiff’s trade secrets and published them in its own patent application. The court concluded that the trade secret owner never had the opportunity to “elect” to give up trade secret protection, and so ruled that the publication of the defendant’s patent had not disclosed plaintiff’s trade secrets. This result seems equitable to the plaintiff. But does it really comport with the principle that information must be secret to be protected? For a contrary rule, *see Evans v. General Motors*, 125 F.3d 1448 (Fed. Cir. 1997) (holding that publication by a thief started the one-year clock running for patenting an invention, and reasoning that because the trade secret owner knew of the theft he could have acted to seek patent protection within a reasonable time period).

ii. Distributing a Product that Embodies the Trade Secret to the Public

Selling or distributing a product embodying a trade secret to the public may jeopardize the secret if the secret becomes readily accessible. As one court explained, both the RESTATEMENT OF TORTS and the Uniform Trade Secrets Act “necessarily compel the conclusion that a trade secret is protectable only so long as it is kept secret by the party creating it. If a so-called trade secret is fully disclosed by the products produced by use of the secret then the right to protection is lost.” *Vacco Indus. v. Van den Berg*, 6 Cal. Rptr. 2d 602, 611 (Ct. App. 1992) (citations omitted). Further, disclosure may occur even without sale of the product itself, if the secret is disclosed freely and without restriction during the manufacturing or development processes.

However, sales of a product to the public do not necessarily disclose a trade secret simply because the product embodies the trade secret. Rather, the question is whether the secret is apparent from the product itself. Secrets that are apparent to the buyers of a product are considered disclosed by the product, but secrets contained in undecipherable form within the product (such as object code in a computer program) are considered secret even when the product is sold.

In *Data General Corp. v. Digital Computer Controls, Inc.*, 297 A.2d 433 (Del. Ct. Ch. 1971), *aff'd*, 297 A.2d 437 (Del. S. Ct. 1972), Data General sold mainframe computers (Nova 1200) to sophisticated business customers. Data General supplied logic drawings along with the computer to any customers who requested this information so as to enable them to repair or customize them. Digital Computer Controls acquired a Nova 1200 on the open market along with the design drawings. When it launched a business repairing and maintaining Data General Nova 1200 computers, Data General sued for misappropriation of the secrets reflected in the design drawings. The court held that Data General had not forfeited secrecy merely by selling the computers:

Defendants insist, however, that plaintiff has not maintained that degree of secrecy which will preserve its right to relief, either by publicly selling an article alleged to contain a trade secret, or by failing to restrict access to the design drawings for its device, arguing that matters of common knowledge in an industry may not be claimed as trade secrets.

It has been recognized in similar cases that even though an unpatented article, device or machine has been sold to the public, and is therefore subject to examination and copying by anyone, the manner of making the article, device or machine may yet constitute a trade secret until such a copy has in fact been made, *Schulenburg v. Signatrol, Inc.*, 33 Ill. 2d 379, 212 N.E.2d 865, and *Tabor v. Hoffman*, N.Y., 118 N.Y. 30, 23 N.E. 12.

Defendants contend, however, that the issuance by plaintiff of copies of design drawings to its customers was made without safeguards designed properly to maintain the secrecy requisite to the existence of a trade secret. In other words, it is contended that plaintiff's attempts to maintain secrecy merely consisted of (1) not giving copies of the design drawings to those customers who did not need them for maintenance of their computer, (2) obtaining agreements not to disclose the information from those customers who were given copies of the drawings, and (3) printing a legend on the drawings which contained the allegedly confidential information which identified the drawing as proprietary information, the use of which was restricted. Plaintiff argues, however, that disclosure of the design drawings to purchasers of the computer is necessary properly to maintain its device, that such disclosure was required by the very nature of the machine, and that reasonable steps were taken to preserve the secrecy of the material released. I conclude at this preliminary stage of

the case that it cannot be held as a matter of law that such precautions were inadequate, a factual dispute as to the adequacy of such precautions having clearly been raised. Defendants' motion for summary judgment must accordingly be denied.

Id.

Of what relevance is the motivation behind the disclosure of a secret? Recall that in *Metallurgical Industries*, the court found the fact that Metallurgical had disclosed its secrets only for profit to weigh in favor of trade secret status. Why should this be the case? On the one hand, licensing is evidence that a secret has value and is worth protecting. On the other hand, one could argue that the fact that a secret holder has sold its information for profit suggests that it is not trying to keep this information secret at all but rather is attempting to profit from its disclosure. Which of these arguments you find persuasive may depend on your view of the reasons for trade secret protection.

iii. Public Disclosure by a Third Party

Trade secrets may be publicly disclosed (through publication or the sale of a product) by someone other than the trade secret owner. Commonly, this occurs when someone other than the trade secret owner has independently developed or discovered the secret. Call the first trade secret "owner" *A*, and the independent developer *B*. *A* has no control over what *B* does with her independent discovery; if she chooses to publish the secret, she defeats not only her rights to trade secret protection, but *A*'s rights as well. Suppose *B* did not develop the secret independently of *A* but in fact stole it from *A*. What happens if *B* publishes the secret? Can *A* still protect it? If so, what happens to *C*, who began using the secret after reading *B*'s publication? This issue was addressed in *Religious Technology Center v. Lerma*, 908 F. Supp. 1362 (E.D. Va. 1995). In that case, the Church of Scientology sued (among others) the Washington Post, which had quoted from part of its confidential scriptures. The court concluded that the fact that the scriptures were posted on a Usenet newsgroup for ten days defeated any claim of trade secrecy:

[For ten days, the documents] remained potentially available to the millions of Internet users around the world.

As other courts who have dealt with similar issues have observed, "posting works to the Internet makes them generally known" at least to the relevant people interested in the newsgroup. Once a trade secret is posted on the Internet, it is effectively part of the public domain, impossible to retrieve. Although the person who originally posted a trade secret on the Internet may be liable for trade secret misappropriation, the party who merely downloads Internet information cannot be liable for misappropriation because there is no misconduct involved in interacting with the Internet.

908 F. Supp. at 1368; *accord American Red Cross v. Palm Beach Blood Bank Inc.*, 143 F.3d 1407 (11th Cir. 1998) (Red Cross donor list lost trade secret status because it was posted on a publicly accessible computer bulletin board). *But see Silicon Image Inc. v. Analogix Semiconductor Inc.*, 2008 WL 166950 (N.D. Cal. Jan. 17, 2008) (presence of information on the Internet does not destroy secrecy, absent evidence that competitors knew about it).

Should the obscurity of the Web site matter? What if it is not indexed in a search engine? In *DVD Copy Control Ass'n v. Bunner*, 116 Cal. App. 4th 241, 10 Cal. Rptr. 3d 185 (Ct. App. 2004), the court found disclosure of a secret on the Internet only because it was “quickly and widely republished to an eager audience,” and cautioned that it did not assume that the secrets were lost merely because they were put on the Internet.

Because of the risk of loss of trade secrecy through Internet posting, companies have been more aggressive in suing individuals who post information they consider confidential. *See O'Grady v. Superior Court*, 44 Cal. Rptr. 3d 72 (Ct. App. 2006); *Ford v. Lane*, 67 F. Supp. 2d 745 (E.D. Mich. 1999). In some of these cases, notably *O'Grady*, the company knows only that the information has been disclosed, and not who has done so. Do such lawsuits present First Amendment issues? Several defendants have asserted that they were reporting legitimate news. *See Franklin B. Goldberg, Ford Motor Co. v. Lane*, 16 BERKELEY TECH. L.J. 271 (2001). And *O'Grady* held that bloggers who disclosed Apple's trade secrets were entitled to First Amendment protection as reporters, so their identity could not be disclosed by subpoena.

For an argument that disclosure on the Internet should not destroy a secret irrevocably, *see* Elizabeth A. Rowe, *Introducing a Takedown for Trade Secrets on the Internet*, 2007 WIS. L. REV. 1042; Elizabeth A. Rowe, *Saving Trade Secret Disclosures on the Internet Through Sequential Preservation*, 42 WAKE FOREST L. REV. 1 (2007).

iv. Inadvertent Disclosure

Trade secrets may be disclosed inadvertently (for example, by being left on a train or elsewhere in public view). While the case law on this issue is sparse, it seems reasonable to argue that a truly accidental disclosure should not defeat trade secret protection if reasonable precautions have been taken. On the other hand, if the inadvertent disclosure is widespread, it would seem unfair (as well as impracticable) to require the public as a whole to “give back” the secret. Note that §1(2)(ii)(C) of the Uniform Trade Secrets Act provides that it is misappropriation for someone to disclose a secret that they have reason to know has been acquired “by accident or mistake.” THE RESTATEMENT (THIRD) OF UNFAIR COMPETITION §40(b)(4) takes the same position, “unless the [accidental] acquisition was the result of the [trade secret owner]’s failure to take reasonable precautions to maintain the secrecy of the information.” *See also Williams v. Curtis-Wright Corp.*, 681 F.2d 161 (3d Cir. 1982) (user

of secrets disclosed by mistake was liable for misappropriation because he had constructive notice of the secrecy of the information). But in *DVD Copy Control Ass'n v. Bunner*, 116 Cal. App. 4th 241, 10 Cal. Rptr. 3d 185 (Ct. App. 2004), the court rejected the idea that “once the information became *publicly* available everyone else would be liable under the trade secret laws simply because they knew about its unethical origins.” “This,” the court said, “is not what trade secret law is designed to do.”

v. Government Disclosure

Government agencies sometimes require the disclosure of trade secrets by private parties in order to serve some other social purpose. See *Corn Products Refining Co. v. Eddy*, 249 U.S. 427 (1919) (requiring a food manufacturer to label its product with an accurate list of ingredients). Health and environmental concerns are a very common reason for the government to require disclosure of product contents. For example, the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. §§136 et seq., requires disclosure of the contents of pesticides as well as a great deal of other information. FIFRA makes two concessions to trade secret protection, however. First, it limits public disclosure of information concerning manufacturing processes and inert (as opposed to active) contents. Second, it provides for compensation to be paid to the inventors of trade secrets which the government appropriates by public disclosure. See also *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986 (1984) (federal requirement that private parties disclose trade secrets may constitute a taking under the Fifth Amendment); *Philip Morris Inc. v. Reilly*, 312 F.3d 24 (1st Cir. 2002) (Massachusetts law requiring labeling of cigarette ingredients was a taking of tobacco companies’ trade secrets).

COMMENTS AND QUESTIONS

1. The plaintiff in *Data General* sold over 500 Nova computers to the general public. Data General provided any buyer who requested the “confidential” design drawings with a copy. Why are these drawings still considered a secret? Does widespread disclosure compromise the secrecy claim at some point, even though all disclosures are made under an agreement of confidentiality? This issue often arises in the software industry. As computers have become ubiquitous, the numbers of “secret” programs in circulation may be counted in the millions rather than the hundreds. *Data General* implicitly concludes that even a relatively widespread disclosure to customers does not compromise the secrecy of the computer design. For cases addressing this issue in the context of computer software, compare *Management Science of America v. Cyborg Sys., Inc.*, 1977-1 Trade Cas. (CCH) ¶61,472 (N.D. Ill. 1977) (holding that distribution of 600 copies of a program under a confidentiality agreement did not destroy secrecy) with *Young Dental Mfg. Co. v. Q3 Special Prods., Inc.*,

891 F. Supp. 1345 (E.D. Mo. 1995) (characterizing as “completely frivolous” plaintiff’s claim that its publicly sold software was a trade secret).

A closely related question involves attempts by the owners of information to “contract around” the requirement of secrecy. If the parties agree to treat a piece of information as secret, is the licensee bound not to use or disclose the information under contract principles regardless of whether or not it is in fact in the public domain? This issue is a recurring one in intellectual property law, and a problem that has never adequately been addressed. Under what circumstances does the sale of a commercial product embodying a trade secret destroy the secret? Is the answer different for a commercially available product produced by a secret manufacturing process? In this regard, computer software may present a special case. While a particular computer program may be widely distributed, in fact all that is sold to the consumer is a disk containing object code. Object code is virtually impossible for humans to read without machine assistance.⁸ Because of this, computer software is in some sense unlike a physical product whose design is evident to the casual observer. Even after it is publicly distributed, object code is meaningless to the casual observer. Only a complex process of reverse engineering (sometimes called “disassembly” or “decompilation”) can enable the user to decipher the source code that was originally written for the program.

Should it matter that a computer program is distributed only in object code form? Consider the following case, in which the defendant was accused of misappropriating a computer program in object code form:

The source code can and does qualify as a trade secret. . . .

Whether the object code is a trade secret is a more difficult question.⁷ Atkinson first contends that the object code cannot be a trade secret because it does not derive independent economic value from its secrecy, and therefore fails the first definitional requirement of a trade secret. This argument has no merit. Trandes generates most of its revenues by providing computer services. . . . Armed with a copy of the object code, an individual would have the means to offer much the same engineering services as Trandes. . .

⁸ It is possible to “reverse engineer” object code in some cases to create a kind of rough estimate of what must have been in the original source code. The process, however, is demanding and time consuming even for expert programmers.

⁷ This case presents an unusual set of facts. In the ordinary case, the owner of trade secret computer software will maintain the secrecy of the source code but freely distribute the object code. *See, e.g., Q-Co Indus. v. Hoffman*, 625 F. Supp. 608, 617 (S.D.N.Y. 1985) (program secret where source code secret, even though object code not secret). In such cases, the owner of the software cannot claim trade secret protection for the object code because its disclosure to the public destroyed its secrecy. In this case, however, Trandes maintained the secrecy of the source code and the object code, as we explain below.

Atkinson next argues that the object code cannot be a trade secret because Trandes did not keep it secret. . . . Atkinson asserts that the Tunnel System has been widely disclosed as a mass-marketed product and that its existence and its abilities are not secret. [The court concluded that the object code remained secret because it had only been distributed to two customers, and both of them signed licenses agreeing to keep the program a secret.]

Trandes Corp. v. Guy F. Atkinson Co., 996 F.2d 655, 663-64 (4th Cir. 1993). Consider the court's footnote. Can object code be a trade secret if it can easily be duplicated (whether or not the copier understands what he is copying)? Is the plaintiff in this case really trying to leverage copyright protection out of a trade secret claim? In many cases, the alleged trade secret at issue is not the source or object code of the computer program itself but certain high-level design features of the program (its "architecture"). See *Integrated Cash Management Services, Inc. v. Digital Transactions, Inc.*, 920 F.2d 171, 173 (2d Cir. 1990). Suppose that, rather than using what they had learned of the architecture of the program while employed by the company, ICM's former employees had copied the object code of the program altogether. (Leave aside for a moment questions of copyright infringement, and consider only the trade secret issue.) Would they be liable for misappropriating the trade secrets contained in the program architecture on the grounds that copying the program in its entirety necessarily copied the architecture? Or would the fact that the object code was publicly disclosed protect them from liability? See *Silvaco Data Sys. v. Intel Corp.*, 109 Cal. Rptr. 3d 27 (Cal. Ct. App. 2010 (holding that one "does not, by executing machine-readable software, 'use' the underlying source code; nor does one acquire the requisite knowledge of any trade secrets embodied in that code.)); *Beacon Wireless Solutions Inc. v. Garmin Int'l*, 894 F. Supp. 2d 727 (W.D. Va. 2012). How would the courts in *Trandes* and the *Data General* cases answer this question? Does the answer suggest a problem with relying on trade secrecy to protect computer programs?

2. Until 1999, patent applications were kept secret by the U.S. Patent Office unless and until the patent issued. See 35 U.S.C. §122. If a patent application was not actively prosecuted, or if the patent did not issue, it was declared abandoned by the Patent Office. See 37 C.F.R. §1.114 (1995). Abandoned applications were not available to the public. In fact, the application itself was destroyed after 20 years.

In Europe, Japan, and elsewhere, patent applications are published 18 months after they are filed, regardless of whether the patent has yet issued. Normally, however, an applicant is notified before the application is published, allowing him or her to "elect" whether to continue to pursue a patent (and have the application be disclosed to the world) or to forgo prosecuting the patent (and retain the secrecy of the application). In 1999, Congress changed U.S. law to require that some (but not all) patent applications be published after 18 months. Since it takes more than three years on average for a patent to issue, many applicants will face an election not between patent

and trade secret protection, but between trade secret protection and the prospect of future patent protection.

The notion of an “election” between trade secret and patent protection assumes that the patent application actually describes all the details of an invention. For more on this issue—known as the “enablement” requirement in patent law—see 35 U.S.C. §112, discussed in Chapter III. Certainly there is evidence that firms sometimes make precisely such an election. See, e.g., HENRY PETROSKI, *THE PENCIL* 114-15 (1990) (describing how the family of Henry David Thoreau kept its pencil-making technology secret rather than disclose it by obtaining a patent). Most patent licenses also allow the licensee to use trade secrets and know-how related to or associated with the patent. If both a patent and its associated secrets are licensed, should there be any limits on the duration of the license? Do these licenses suggest that an inventor can avoid the “election” doctrine and “have it both ways” in some respects? See *United States v. Pilkington plc*, No. 94-345-TUC-WDB (D. Ariz. May 25, 1994) (government anti-trust action against a company that sought to enforce trade secrets against competitors after a related patent had expired). For an account of disclosure-related advantages of seeking patents, see Robert P. Merges, *A Transactional View of Property Rights*, 20 *BERKELEY TECH. L.J.* 1477 (2005).

3. To what extent does the incorporation of a secret in a public governmental record preclude trade secret protection? See *Frazee v. U.S. Forest Service*, 97 F.3d 367 (9th Cir. 1996) (information was not a trade secret because it could be obtained from the government under the Freedom of Information Act); *Weygand v. CBS, Inc.*, 43 U.S.P.Q.2d 1120 (C.D. Cal. 1997) (depositing a work with the U.S. Copyright Office destroys trade secrecy).

C. MISAPPROPRIATION OF TRADE SECRETS

Not all uses of another’s trade secrets constitute misappropriation. Acquisition or use of a trade secret is illegal only in two basic situations: where it is done through improper means, or where it involves a breach of confidence. Uniform Trade Secrets Act §1; RESTATEMENT (THIRD) OF UNFAIR COMPETITION §40.

1. Improper Means

E. I. du Pont deNemours & Co. v. Christopher
United States Court of Appeals for the Fifth Circuit
431 F.2d 1012 (5th Cir. 1970)

GOLDBERG, Circuit Judge:

This is a case of industrial espionage in which an airplane is the cloak and a camera the dagger. The defendants-appellants, Rolfe and Gary Christopher, are photographers in Beaumont, Texas. The Christophers were hired by an unknown third party to

take aerial photographs of new construction at the Beaumont plant of E.I. duPont deNemours & Company, Inc. Sixteen photographs of the DuPont facility were taken from the air on March 19, 1969, and these photographs were later developed and delivered to the third party.

DuPont employees apparently noticed the airplane on March 19 and immediately began an investigation to determine why the craft was circling over the plant. By that afternoon the investigation had disclosed that the craft was involved in a photographic expedition and that the Christophers were the photographers. DuPont contacted the Christophers that same afternoon and asked them to reveal the name of the person or corporation requesting the photographs. The Christophers refused to disclose this information, giving as their reason the client's desire to remain anonymous.

Having reached a dead end in the investigation, DuPont subsequently filed suit against the Christophers, alleging that the Christophers had wrongfully obtained photographs revealing DuPont's trade secrets which they then sold to the undisclosed third party. DuPont contended that it had developed a highly secret but unpatented process for producing methanol, a process which gave DuPont a competitive advantage over other producers. This process, DuPont alleged, was a trade secret developed after much expensive and time-consuming research, and a secret which the company had taken special precautions to safeguard. The area photographed by the Christophers was the plant designed to produce methanol by this secret process, and because the plant was still under construction parts of the process were exposed to view from directly above the construction area. Photographs of that area, DuPont alleged, would enable a skilled person to deduce the secret process for making methanol. DuPont thus contended that the Christophers had wrongfully appropriated DuPont trade secrets by taking the photographs and delivering them to the undisclosed third party. In its suit DuPont asked for damages to cover the loss it had already sustained as a result of the wrongful disclosure of the trade secret and sought temporary and permanent injunctions prohibiting any further circulation of the photographs already taken and prohibiting any additional photographing of the methanol plant. . . .

. . . [T]he Christophers argue that for an appropriation of trade secrets to be wrongful there must be a trespass, other illegal conduct, or breach of a confidential relationship. We disagree.

It is true, as the Christophers assert, that the previous trade secret cases have contained one or more of these elements. However, we do not think that the Texas courts would limit the trade secret protection exclusively to these elements. On the contrary, in *Hyde Corporation v. Huffines*, 1958, 158 Tex. 566, 314 S.W.2d 763, the Texas Supreme Court specifically adopted the rule found in the Restatement of Torts which provides:

One who discloses or uses another's trade secret, without a privilege to do so, is liable to the other if

- (a) he discovered the secret by improper means, or
- (b) his disclosure or use constitutes a breach of confidence reposed in him by the other in disclosing the secret to him. . . .

RESTATEMENT OF TORTS §757 (1939). Thus, although the previous cases have dealt with a breach of a confidential relationship, a trespass, or other illegal conduct, the rule is much broader than the cases heretofore encountered. Not limiting itself to specific wrongs, Texas adopted subsection (a) of the Restatement which recognizes a cause of action for the discovery of a trade secret by any "improper" means. . . .

The question remaining, therefore, is whether aerial photography of plant construction is an improper means of obtaining another's trade secret. We conclude that it is and that the Texas courts would so hold. The Supreme Court of that state has declared that "the undoubted tendency of the law has been to recognize and enforce higher standards of commercial morality in the business world." *Hyde Corporation v. Huffines*, *supra*, 314 S.W.2d at 773. That court has quoted with approval articles indicating that the proper means of gaining possession of a competitor's secret process is "through inspection and analysis" of the product in order to create a duplicate. *K & G Tool & Service Co. v. G & G Fishing Tool Service*, 1958, 158 Tex. 594, 314 S.W.2d 782, 783, 788. Later another Texas court explained:

The means by which the discovery is made may be obvious, and the experimentation leading from known factors to presently unknown results may be simple and lying in the public domain. But these facts do not destroy the value of the discovery and will not advantage a competitor who by unfair means obtains the knowledge without paying the price expended by the discoverer.

Brown v. Fowler, Tex. Civ. App. 1958, 316 S.W.2d 111, 114, *writ ref'd n.r.e.*

We think, therefore, that the Texas rule is clear. One may use his competitor's secret process if he discovers the process by reverse engineering applied to the finished product; one may use a competitor's process if he discovers it by his own independent research; but one may not avoid these labors by taking the process from the discoverer without his permission at a time when he is taking reasonable precautions to maintain its secrecy. To obtain knowledge of a process without spending the time and money to discover it independently is improper unless the holder voluntarily discloses it or fails to take reasonable precautions to ensure its secrecy.

In the instant case the Christophers deliberately flew over the DuPont plant to get pictures of a process which DuPont had attempted to keep secret. The Christophers delivered their pictures to a third party who was certainly aware of the means by which they had been acquired and who may be planning to use the information contained therein to manufacture methanol by the DuPont process. The third party has a

right to use this process only if he obtains this knowledge through his own research efforts, but thus far all information indicates that the third party has gained this knowledge solely by taking it from DuPont at a time when DuPont was making reasonable efforts to preserve its secrecy. In such a situation DuPont has a valid cause of action to prohibit the Christophers from improperly discovering its trade secret and to prohibit the undisclosed third party from using the improperly obtained information.

We note that this view is in perfect accord with the position taken by the authors of the Restatement. In commenting on improper means of discovery the savants of the Restatement said:

f. Improper means of discovery. The discovery of another's trade secret by improper means subjects the actor to liability independently of the harm to the interest in the secret. Thus, if one uses physical force to take a secret formula from another's pocket, or breaks into another's office to steal the formula, his conduct is wrongful and subjects him to liability apart from the rule stated in this Section. Such conduct is also an improper means of procuring the secret under this rule. But means may be improper under this rule even though they do not cause any other harm than that to the interest in the trade secret. Examples of such means are fraudulent misrepresentations to induce disclosure, tapping of telephone wires, eavesdropping or other espionage. A complete catalogue of improper means is not possible. In general they are means which fall below the generally accepted standards of commercial morality and reasonable conduct.

RESTATEMENT OF TORTS §757, Comment *f* at 10 (1939).

In taking this position we realize that industrial espionage of the sort here perpetrated has become a popular sport in some segments of our industrial community. However, our devotion to free-wheeling industrial competition must not force us into accepting the law of the jungle as the standard of morality expected in our commercial relations. Our tolerance of the espionage game must cease when the protections required to prevent another's spying cost so much that the spirit of inventiveness is dampened. Commercial privacy must be protected from espionage which could not have been reasonably anticipated or prevented. We do not mean to imply, however, that everything not in plain view is within the protected vale, nor that all information obtained through every extra optical extension is forbidden. Indeed, for our industrial competition to remain healthy there must be breathing room for observing a competing industrialist. A competitor can and must shop his competition for pricing and examine his products for quality, components, and methods of manufacture. Perhaps ordinary fences and roofs must be built to shut out incursive eyes, but we need not require the discoverer of a trade secret to guard against the unanticipated, the undetectable, or the unpreventable methods of espionage now available.

In the instant case DuPont was in the midst of constructing a plant. Although after construction the finished plant would have protected much of the process from view,

during the period of construction the trade secret was exposed to view from the air. To require DuPont to put a roof over the unfinished plant to guard its secret would impose an enormous expense to prevent nothing more than a school boy's trick. We introduce here no new or radical ethic since our ethos has never given moral sanction to piracy. The market place must not deviate far from our mores. We should not require a person or corporation to take unreasonable precautions to prevent another from doing that which he ought not do in the first place. Reasonable precautions against predatory eyes we may require, but an impenetrable fortress is an unreasonable requirement, and we are not disposed to burden industrial inventors with such a duty in order to protect the fruits of their efforts. "Improper" will always be a word of many nuances, determined by time, place, and circumstances. We therefore need not proclaim a catalogue of commercial improprieties. Clearly, however, one of its commandments does say "thou shall not appropriate a trade secret through deviousness under circumstances in which countervailing defenses are not reasonably available."

...

COMMENTS AND QUESTIONS

1. Improper means has a substantial basis in other torts. *See* Comment *f* to THE RESTATEMENT, cited in *duPont*, and the RESTATEMENT (THIRD) OF UNFAIR COMPETITION §43 (defining improper means as including "theft, fraud, unauthorized interception of communications, inducement of or knowing participation in a breach of confidence, and other means either wrongful in themselves or wrongful under the circumstances of the case.").

DuPont itself provides an example of conduct prohibited by trade secret law that is probably not otherwise tortious. Should otherwise legitimate conduct be prohibited because it will disclose a trade secret? As Judge Posner noted in *Rockwell*, misappropriation of trade secrets is largely redundant if it does not reach any further than other torts. Nonetheless, the reach of the case is troubling. Consider the last sentence of the *duPont* opinion. What is wrong with "deviousness"? Is reverse engineering (which is legal under both the Restatement and the Uniform Act) any less devious than aerial photography? And why should "countervailing defenses" enter the picture?

2. There is general agreement that "reverse engineering" — that is, buying a product and taking it apart to see how it works — is not a misappropriation of a trade secret. As we will see in Chapter III, reverse engineering of a patented invention does permit the discoverer to practice the invention during the patent term. But while it may be easy to see how to reverse engineer a product, how does one reverse engineer a process? Are there realistic alternatives to the sort of espionage condemned in *duPont* for those who seek to reproduce a process? Should there be some legally protected way of discovering a competitor's process?

3. Note how the decision in *duPont* dovetails with the discussion of precautions in II(B)(2). DuPont could have protected itself against aerial photography by building a roof over its plant area before beginning internal construction. The Fifth Circuit rejected this alternative because it would “impose an enormous expense to prevent nothing more than a school boy’s trick.” On the other hand, the courts are clearly willing to put duPont to *some* expense to protect its secrets from prying eyes. If duPont had allowed its engineers to leave copies of the plant blueprints on subways, the result of the case might be very different.

How much expense is duPont required to incur to protect itself? The uniform answer of the courts is that only “reasonable” precautions must be taken. While this is not a terribly helpful answer, it may be a fairly practical one in any given industry, where companies can protect themselves by taking those precautions that are customary in that industry.

On the other hand, consider the Second Circuit’s statement in *Franke v. Wilt-schek*, 209 F.2d 493, 495 (2d Cir. 1953):

It matters not that the defendants could have gained their knowledge from a study of the expired patent and plaintiff’s publicly marketed product. The fact is they did not. Instead they gained it from plaintiffs via their confidential relationship, and in doing so incurred a duty not to use it to plaintiff’s detriment. This duty they have breached.

Is this consistent with the UTSA?

4. An interesting case involving only circumstantial evidence of misappropriation is *Pioneer Hi-Bred International v. Holden Foundation Seeds, Inc.*, 35 F.3d 1226, 31 U.S.P.Q.2d 1385 (8th Cir. 1994). Plaintiff Pioneer could not establish a specific act of misappropriation, but it did show (through the use of three sophisticated scientific tests) that it was highly unlikely that defendant’s hybrid seeds had been developed independently of plaintiff’s seeds. Instead, due to genetic similarities, Pioneer showed that it was much more likely that those seeds were “derived from” a popular Pioneer hybrid. Pioneer was found to have maintained reasonable measures to guard against disclosure, including putting experimental seeds in bags marked with a secret code, allowing seeds to be grown only under strict nondisclosure arrangements, and leaving unmarked the fields in which the seeds had been planted. Pioneer was awarded \$46.7 million in damages.

By contrast, the Fourth Circuit in *Othentec Ltd. v. Phelan*, 526 F.3d 135 (4th Cir. 2008), made it clear that speculation of theft based on the defendant’s speed in entering the market was not enough. The court required “actual objective evidence” of misappropriation.

PROBLEM

Problem II-8. Suppose that, at trial in the *duPont* case, the Christophers proved that they could have discovered the secrets contained in the layout of the duPont plant by careful viewing of images available on Google Earth. Are the Christophers then relieved from liability for misappropriation of trade secrets? Would your answer change if they had in fact obtained the photos by sneaking onto the duPont property on the ground?

2. Confidential Relationship

The previous section concerned misappropriation of trade secrets by improperly obtaining them from their owner. But secrets that have been properly obtained may still be misappropriated if they are improperly used or disclosed. Most often, this occurs when the secrets are used or disclosed in violation of a confidential relationship. Confidential relationship cases dominate trade secret litigation; one study found that 93 percent of all trade secret cases are between parties who know each other. *See David S. Almeling et al., A Statistical Analysis of Trade Secret Litigation in State Courts*, 46 GONZ. L. REV. 57, 59 (2011).

What is a confidential relationship? Obviously, the easiest way to create a confidential relationship is to sign a contract to that effect. Agreements to keep certain information confidential are generally enforceable, at least if the information meets the definition of a trade secret. *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION §39, Comment *d*, at 430. But confidential relationships may also arise without any express agreement. Consider the following case.

Smith v. Dravo Corp.

United States Court of Appeals for the Seventh Circuit

203 F.2d 369 (7th Cir. 1953)

LINDLEY, J.

Plaintiffs appeal from a judgment for defendant entered at the close of a trial by the court without a jury. The complaint is in four counts: 1 and 2 charge an unlawful appropriation by defendant of plaintiffs' trade secrets relating to the design and construction and selling and leasing of freight containers; 3 and 4 aver infringement of plaintiffs' patents Nos. 2,457,841 and 2,457,842. . . .

In the early 1940s Leathem D. Smith, now deceased, began toying with an idea which, he believed, would greatly facilitate the ship and shore handling and transportation of cargoes. As he was primarily engaged in the shipbuilding business, it was quite natural that his thinking was chiefly concerned with water transportation and dock handling. Nevertheless his overall plan encompassed rail shipping as well. He

envisioned construction of ships especially designed to carry their cargo in uniformly sized steel freight containers. These devices (which, it appears, were the crux of his idea) were: equipped with high doors at one end; large enough for a man to enter easily; weather and pilfer proof; and bore collapsible legs, which (1) served to lock them (a) to the deck of the ship by fitting into recesses in the deck, or (b) to each other, when stacked, by reason of receiving sockets located in the upper four corners of each container, and (2) allowed sufficient clearance between deck and container or container and container for the facile insertion of a fork of a lift tractor, and (3) were equipped with lifting eyelets, which, together with a specially designed hoist, made possible placement of the containers upon or removal from a ship, railroad car or truck, while filled with cargo. The outer dimensions of the devices were such that they would fit compactly in standard gauge North American railroad cars, or narrow gauge South American trains, and in the holds of most water vessels.

[At the end of World War II, Smith's company — Safeway Containers — had some success building and selling such containers.]

On June 23, 1946, Smith died in a sailing accident. The need for cash for inheritance tax purposes prompted his estate to survey his holdings for disposable assets. It was decided that the container business should be sold. Devices in process were completed but no work on new ones was started.

Defendant was interested in the Safeway container, primarily, it appears, for use by its subsidiary, the Union Barge Lines. In October 1946 it contacted Agwilines [one of Smith's customers] seeking information. It watched a loading operation in which Agwilines used the box. At approximately the same time, defendant approached the shipbuilding company and inquired as to the possibility of purchase of a number of the containers. It was told to communicate with Cowan, plaintiffs' eastern representative. This it did, and, on October 29, 1946, in Pittsburgh, Cowan met with defendant's officials to discuss the proposed sale of [containers]. But, as negotiations progressed, defendant demonstrated an interest in the entire container development. Thus, what started as a meeting to discuss the purchase of individual containers ended in the possible foundation for a sale of the entire business.

Based upon this display of interest, Cowan sent detailed information to defendant concerning the business. This included: (1) patent applications for both the "knock-down" and "rigid" crates; (2) blue prints of both designs; (3) a miniature Safeway container; (4) letters of inquiry from possible users; (5) further correspondence with prospective users. In addition, defendant's representatives journeyed to Sturgeon Bay, Wisconsin, the home of the shipbuilding company, and viewed the physical plant, inventory and manufacturing operation.

Plaintiffs quoted a price of \$150,000 plus a royalty of \$10 per unit. This was rejected. Subsequent offers of \$100,000 and \$75,000 with royalties of \$10 per container

were also rejected. Negotiations continued until January 30, 1947, at which time defendant finally rejected plaintiffs' offer.

On January 31, 1947 defendant announced to Agwilines that it "intended to design and produce a shipping container of the widest possible utility" for "coastal steamship application . . . [and] use . . . on the inland rivers and . . . connecting highway and rail carriers." Development of the project moved rapidly, so that by February 5, 1947 defendant had set up a stock order for a freight container which was designed, by use of plaintiffs' patent applications, so as to avoid any claim of infringement. One differing feature was the use of skids and recesses running the length of the container, rather than legs and sockets as employed in plaintiffs' design. However, Agwilines rejected this design, insisting on an adaptation of plaintiffs' idea. In short defendant's final product incorporated many, if not all, of the features of plaintiffs' design. So conceived, it was accepted by the trade to the extent that, by March 1948, defendant had sold some 500 containers. Many of these sales were made to firms who had shown considerable prior interest in plaintiffs' design and had been included in the prospective users disclosed to defendant.

One particular feature of defendant's container differed from plaintiffs: its width was four inches less. As a result plaintiffs' product became obsolete. Their container could not be used interchangeably with defendant's; they ceased production. Consequently the prospects of disposing of the entire operation vanished.

The foregoing is the essence of plaintiffs' cause of action. Stripped of surplusage, the averment is that defendant obtained, through a confidential relationship, knowledge of plaintiffs' secret designs, plans and prospective customers, and then wrongfully breached that confidence by using the information to its own advantage and plaintiffs' detriment.

[The court found that, notwithstanding certain disclosures of information during the operation of Safeway, plaintiffs' information about how to design its containers remained a trade secret.]

(3) Was Defendant in a Position of Trust and Confidence at the Time of the Disclosure?

Mr. Justice Holmes once said that the existence of the confidential relationship is the "starting point" in a cause of action such as this. *E.I. DuPont de Nemours Powder Co. v. Masland*, 244 U.S. 100, 102. While we take a slightly different tack, there is no doubt as to the importance of this element of plaintiffs' case.

Certain it is that a non-confidential disclosure will not supply the basis for a law suit. Plaintiffs' information is afforded protection because it is secret. Promiscuous disclosures quite naturally destroy the secrecy and the corresponding protection. But this is not true where a confidence has been reposed carrying with it communication of an idea.

It is clear that no express promise of trust was exacted from defendant. There is, however, the further question of whether one was implied from the relationship of the parties. Pennsylvania has not provided us with a decision precisely in point but *Pressed Steel Car Co. v. Standard Car Co.*, 210 Pa. 464, 60 A. 4, furnishes abundant guideposts. There plaintiff delivered its blue prints to customers in order that they might acquaint themselves more thoroughly with the railroad cars they were purchasing; from these customers, defendant obtained the drawings. In holding that the customers held the plans as a result of a confidence reposed in them by plaintiff, and that the confidence was breached by delivery of the blue prints to defendant, the court said, 60 A. at page 10: "While there was no expressed restriction placed on the ownership of the prints, or any expressed limitation as to the use to which they were to be put, it is clear . . . that the purpose for which they were delivered by the plaintiff was understood by all parties. . . ."

The quoted language is applicable and determinative. Here plaintiffs disclosed their design for one purpose, to enable defendant to appraise it with a view in mind of purchasing the business. There can be no question that defendant knew and understood this limited purpose. Trust was reposed in it by plaintiffs that the information thus transmitted would be accepted subject to that limitation. "[T]he first thing to be made sure of is that the defendant shall not fraudulently abuse the trust reposed in him. It is the usual incident of confidential relations. If there is any disadvantage in the fact that he knew the plaintiffs' secrets, he must take the burden with the good." *E.I. DuPont de Nemours Powder Co. v. Masland*, 244 U.S. 100, 102.

Nor is it an adequate answer for defendant to say that the transactions with plaintiffs were at arm's length. So, too, were the overall dealings between plaintiffs and defendants in *Booth v. Stutz Motor Car Co.*, 7 Cir., 56 F.2d 962; *Allen-Qualley Co. v. Shellmar Products Co.*, D.C., 31 F.2d 293, affirmed, 7 Cir., 36 F.2d 623 and *Schavoir v. American Rebonded Leather Co.*, 104 Conn. 472, 133 A. 582. That fact does not detract from the conclusion that but for those very transactions defendant would not have learned, from plaintiffs, of the container design. The implied limitation on the use to be made of the information had its roots in the "arms-length" transaction.

(4) *The Improper Use by Defendant of the Secret Information*

Defendant's own evidence discloses that it did not begin to design its container until after it had access to plaintiffs' plans. Defendant's engineers admittedly referred to plaintiffs' patent applications, as they said, to avoid infringement. It is not disputed that, at the urging of Agwilines, defendant revised its proposed design to incorporate the folding leg and socket principles of plaintiffs' containers. These evidentiary facts, together with the striking similarity between defendant's and plaintiffs' finished product, were more than enough to convict defendant of the improper use of the structural information obtained from plaintiffs.

COMMENTS AND QUESTIONS

1. Since the shipping containers were available on the open market, couldn't Dravo have argued that they were not a trade secret? Did Smith's agent, Cowan, disclose anything that was *not* readily apparent from inspection of the containers? For more on the history of containerization, see MARC LEVINSON, *THE BOX: HOW THE SHIPPING CONTAINER MADE THE WORLD SMALLER AND THE WORLD ECONOMY BIGGER* (2008) (mentioning Dravo Corporation container as early precursor of containerization).

2. In *Van Prods. Co. v. General Welding & Fabricating Co.*, 213 A.2d 769, 779-80 (Pa. 1965), the Pennsylvania Supreme Court criticized *Smith* for focusing on the existence of a confidential relationship to the exclusion of whether there was a trade secret at all. The court said: "The starting point in every case of this sort is not whether there was a confidential relationship, but whether, in fact, there was a trade secret to be misappropriated." But where there is a secret, a company that receives the secret in a business negotiation and then uses it without paying is guilty of misappropriating that secret. See *Altavion Inc. v. Konica Minolta Sys. Lab. Inc.*, 171 Cal. Rptr. 3d 714 (Cal. Ct. App. 2014).

3. Compare *Smith v. Dravo* with *Omnitech Int'l v. Clorox Co.*, 29 U.S.P.Q.2d 1665 (5th Cir. 1994), where the court held that it was not an actionable "use" of a trade secret for the defendant to *evaluate* it in the course of trying to decide whether to (a) acquire the company or (b) take a license to use the trade secret. A finding of no liability here makes sense, because it allows the potential licensee to make an informed judgment and therefore promotes efficient licensing. But how far does it extend? Is the potential licensee entitled to replicate the research or build models in an effort to evaluate it? Are there special limits that should be placed on companies engaged in a "make or buy" decision — that is, who are considering *either* licensing the plaintiff's technology *or* entering the market themselves?

Smith and *Omnitech* both involved disclosures in the course of licensing negotiations. Cases such as these form part of the amorphous law of "precontractual liability." See E. Allen Farnsworth, *Precontractual Liability and Preliminary Agreements: Fair Dealing and Failed Negotiations*, 87 COLUM. L. REV. 217 (1987). Both the *Smith* and *Omnitech* cases present the problem of Arrow's Information Paradox. What the plaintiff has to sell to the defendant is information that is valuable only because it is secret. If there is no legal protection and if the plaintiff discloses the secret to the defendant, its value will be lost. But the defendant cannot be expected to pay for information unless it can see the information to determine its value. Thus, absent some form of legal protection for confidential disclosures, sale or licensing of trade secrets may not occur. Note that this problem does not arise in other areas of intellectual property, such as patent law, since the inventions being licensed are already publicly disclosed.

4. The RESTATEMENT (THIRD) OF UNFAIR COMPETITION §41 holds that a confidential relationship is established in the following circumstances:

- (a) the person made an express promise of confidentiality prior to the disclosure of the trade secret; or
- (b) the trade secret was disclosed to the person under circumstances in which the relationship between the parties to the disclosure or the other facts surrounding the disclosure justify the conclusions that, at the time of the disclosure,
 - (1) the person knew or had reason to know that the disclosure was intended to be in confidence, and
 - (2) the other party to the disclosure was reasonable in inferring that the person consented to an obligation of confidentiality.

On the issue of knowledge, compare this “had reason to know” standard with the Eleventh Circuit’s decision in *Bateman v. Mnemonics, Inc.*, 79 F.3d 1532 (11th Cir. 1996). In that case, the court indicated that it was “wary” of trade secret claims based on implied confidential relationships because they were subject to abuse. The court rejected Bateman’s allegation that such a relationship existed because Bateman had not “made it clear to the parties involved that there was an expectation and obligation of confidentiality.” Thus, the court seemed to create a standard of actual knowledge on the part of the recipient of confidential information that the discloser of such information intended the disclosure to be confidential. At the other extreme, the Fifth Circuit in *Phillips v. Frey*, 20 F.3d 623, 631-32 (5th Cir. 1994) found an implied confidential relationship to exist in the course of negotiations over the sale of a business, despite the fact that the disclosing party never even requested that the information remain confidential.

Which approach makes more sense? Who is in the best position to clarify the question, the discloser or the recipient?

5. Is there any way for a potential licensee to prevent the formation of a confidential relationship in such a situation?

6. The defendant in *Smith* actually sold a device that was not identical to the plaintiff’s. Under what circumstances can a defendant be liable for misappropriation without literally copying the trade secret? In *Mangren Res. & Dev. Corp. v. National Chem. Co.*, 87 F.3d 1339 (7th Cir. 1996), the court defined improper “use” broadly, stating that “the user of another’s trade secret is liable even if he uses it with modifications or improvements upon it effected by his own efforts, so long as the substance of the process used by the actor is derived from the other’s secret. . . . If trade secret law were not flexible enough to encompass modified or even new products that are substantially derived from the trade secrets of another, the protections that the law provides would be hollow indeed.” To similar effect as *Mangren* is *Texas Tanks Inc.*

v. Owens-Corning Fiberglas Corp., 99 F.3d 740 (5th Cir. 1997). In *Texas Tanks*, the Fifth Circuit held that any improper “exercise of control and domination” over a secret constituted a commercial use of that secret. It rejected the defendant’s argument that it could not be liable for taking a secret unless the secret was actually incorporated in a commercial product. The court noted that Owens Corning’s awareness of the secret would likely influence the development of its own competing product, and that this was enough to demonstrate improper “use” of the secret. And in *Collelo v. Geographic Servs., Inc.*, 283 Va. 56 (2012), the Virginia Supreme Court held that a party could misappropriate trade secrets even though it did not compete with the plaintiff, as long as the plaintiff could show injury.

PROBLEMS

Problem II-9. Solomon, a regular customer of ToolCo’s products, comes up with an idea for a new tool. He sends the idea to ToolCo, suggesting that they manufacture it. ToolCo does in fact produce and sell the new tool. Is Solomon entitled to compensation for ToolCo’s use of his idea? Does it make any difference if (1) ToolCo actively solicited the idea from Solomon? (2) Solomon sent the suggestion to ToolCo along with a letter saying he wanted to open negotiations over a possible licensing arrangement to use the idea? (3) ToolCo has in the past had an informal, unwritten policy of compensating inventors who submit good ideas?

Problem II-10. VenCo, a venture capitalist in the business of financing start-up companies, investigates TechCo in an effort to decide whether or not to finance it. To aid in its investigation, VenCo asks for and receives confidential information about TechCo’s products and *market* position. VenCo eventually decides not to finance TechCo because of concerns about its management, but it does finance a start-up competitor of TechCo in the same field. Are VenCo or the start-up liable to TechCo? What obligations, if any, does VenCo undertake as a result of its exposure to TechCo’s secrets?

Problem II-11. Falcon Systems employs Kotva as a sales representative. In the course of her work for Falcon, Kotva comes into contact with a large number of actual and potential customers. Some are leads provided by Falcon, while others she develops on her own. To manage her connections, she uses a website called LinkedIn, which allows people to record and build business connections. Kotva uses LinkedIn for all her connections, business as well as personal.

When Kotva leaves Falcon to take a job with a competitor, Falcon argues that her LinkedIn “connections” are effectively a customer list and belong to the company. They insist that she delete her LinkedIn account, or alternatively eliminate any job-related contacts from the site. How should the court rule?

D. DEFENSES

The UTSA lacks any express exceptions to trade secret liability. Yet the definition of misappropriation entails improper acts. And independent discovery or reverse engineering are not improper. Thus, to the extent that a defendant can show that it reverse engineered or independently developed trade secret information, it can avoid liability under state law. The new federal DTSA is even more explicit, expressly providing that reverse engineering and independent invention are not improper means of acquiring a trade secret. Furthermore, courts have long recognized that trade secret protection can “implicate the interest in freedom of expression or advance another significant public interest.” *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION, §40, comment *c*. Section 2 explores this public policy limitation.

1. Independent Discovery and Reverse Engineering

Not all use or disclosure of someone’s secret is actionable misappropriation. Rather, as the commissioners who drafted the Uniform Trade Secrets Act noted, there are several categories of “proper means” of obtaining a trade secret. We classify these “proper means” as defenses, because they do not directly deny the existence of a trade secret or the defendant’s use of that secret. Rather, they are *legitimate* uses of trade secrets by a competitor.

UTSA Comment to §1 explains that:

One of the broadly stated policies behind trade secret law is “the maintenance of standards of commercial ethics.” THE RESTATEMENT OF TORTS, Section 757, Comment (f), notes: “A complete catalogue of improper means is not possible,” but Section 1(1) includes a partial listing.

Proper means include:

1. Discovery by independent invention;
2. Discovery by “reverse engineering,” that is, by starting with the known product and working backward to find the method by which it was developed. The acquisition of the known product must, of course, also be by a fair and honest means, such as purchase of the item on the open market, for reverse engineering to be lawful;
3. Discovery under a license from the owner of the trade secret;
4. Observation of the item in public use or on public display;
5. Obtaining the trade secret from published literature.

See also RESTATEMENT (THIRD) OF UNFAIR COMPETITION §43 (“Independent discovery and analysis of publicly available products or information are not improper means of acquisition.”).

Kadant, Inc. v. Seeley Machine, Inc.**United States District Court for the Northern District of New York****244 F. Supp. 2d 19 (N.D.N.Y. 2003)**

HURD, District Judge.

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II. Facts

Kadant is a publicly traded corporation with yearly sales eclipsing \$100 million. Kadant AES (“AES”) is a division of Kadant located in Queensbury, New York. For twenty-eight years, AES has manufactured and sold to customers worldwide products that clean and condition papermaking machines and filter water used in the papermaking process. “There are three main products areas of the business of AES: shower and spray devices and nozzles; foil blades to remove water from the paper during the papermaking process; and structures that hold foils and filters for straining water utilized in the papermaking process so that it can be reused.” . . . Plaintiff occupies a dominant place in the national papermaking market.

Corlew was hired by AES in July of 1995 as a machinist. Nearly three years later, in April of 1998, he was promoted to a position in the engineering department. In that capacity, Corlew would be provided with a refined customer order, made by an AES engineer and a customer, and it was his job to create a “manufacturing drawing (with instructions and a bill of materials — i.e., the ‘recipe’) for the order.” In order to create such a drawing, Corlew used a computer assisted drawing machine. The computer assisted drawing machine contained “the recipes for the AES products and generate[d] drawings and bills of materials.” Plaintiff contends that AES took steps to protect the secrecy of the information contained in the computer assisted drawing machine. In June of 1999, Corlew was promoted again and now had the responsibility to assist the engineers in designing customer orders. Corlew was terminated in the summer of 2001.

During his tenure at AES, Corlew had access to plaintiff’s “recipes” (“design specifications”) for its products and to plaintiff’s computerized database of prospective customers, which includes “names, addresses, and e-mails for all potential customers in the papermaking industry, including the names of individuals key to these companies’ purchasing orders.” Plaintiff contends that one of Corlew’s final assignments while at AES was to coordinate this database with the database containing information on all current AES customers and their purchasing histories. Corlew had access to AES’s entire computer system, which apparently included both databases as well as the computer assisted drawing machine containing the design specifications. At the end of his employment, Corlew’s access to AES’s computer system was terminated, and his laptop was wiped clean of AES information, and/or access thereto. Throughout his employment with AES, Corlew was subject to a signed confidentiali-

ty agreement, in which he agreed not to disclose or use to his benefit any confidential information, including information about AES customers.

Following his termination, Corlew formed APE “to outsource the manufacture of his own line of products for sale to the pulp and papermaking industry.” According to defendants, APE was not a successful venture, forcing Corlew to begin working for Cambridge Valley Machine, Inc. (“CVM”). In April or May of 2002, Corlew resigned from CVM. Defendants contended in their moving papers that, as a condition of his resignation, Corlew was required to relinquish the rights to the name APE to CVM.

Near the end of April of 2002, Corlew began working for Seeley, “developing and marketing a new line of Seeley products for sale to the pulp and papermaking industry.” According to defendants, “[t]he products comprising this new line were reverse-engineered from existing products, freely available in the public domain and unprotected by published patent applications, in-force patents or trade secrets.” According to plaintiff, the only way defendants could have developed and put out for sale this new line of products in so short of time is not by reverse engineering, which it alleges is time consuming, expensive, and requiring technical skill, but by Corlew’s theft of AES’s trade secrets — its design specifications and the customer databases — and infringement of its trademark.

Specifically, claims plaintiff, using as a frame of reference defendants’ own expert, it would take defendants 1.7 years to reverse engineer all of plaintiff’s nozzles. Defendants maintain, however, that only a small fraction, not all, of plaintiff’s products were reverse engineered. The parties also dispute how much time would be associated with the manufacturing process. . . .

III. Discussion

Plaintiff has moved for preliminary injunctive relief pursuant to Fed. R. Civ. P. 52(a). . . .

In order for plaintiff to successfully move for a preliminary injunction, it must demonstrate: 1) a likelihood of irreparable harm if the injunction is not granted; and 2) either a likelihood of success on the merits of its claims, or the existence of serious questions going to the merits of its claims plus a balance of the hardships tipping decidedly in its favor. *Bery v. City of New York*, 97 F.3d 689, 693-94 (2d Cir. 1996). Because the issuance of a preliminary injunction is a drastic remedy, plaintiff is required to make a “clear showing” of these requirements. *See Mazurek v. Armstrong*, 520 U.S. 968, 972 (1997). . . .

B. TRADE SECRET THEFT/MISAPPROPRIATION

...

1. Likelihood of Success on the Merits

To establish misappropriation of a trade secret, a plaintiff must prove: 1) that “it possessed a trade secret; and 2) that defendants are using that trade secret in breach of an agreement, confidence, or duty, or as a result of discovery by improper means.” *Integrated Cash Management Services, Inc. v. Digital Transactions, Inc.*, 920 F.2d 171, 173 (2d Cir. 1990); *see also Carpetmaster of Latham v. Dupont Flooring Systems*, 12 F. Supp. 2d 257, 261 (N.D.N.Y. 1998). . . .

b. Design Specifications

Secrecy again takes center stage and is dispositive when determining whether plaintiff’s product design specifications are entitled to trade secret protection for the purposes of obtaining preliminary injunctive relief. If secrecy is lost when a product is placed on the market, there is no trade secret protection. *See LinkCo*, 230 F. Supp. 2d at 498-99 (collecting cases). The primary issue with respect to this alleged trade secret is whether plaintiff’s products could be reverse engineered in the time span between Corlew’s hiring at Seeley and defendants’ marketing and putting out their products for sale.⁹ As will be shown, *infra*, the parties disagree about every material fact that goes toward resolving this debate.”

Trade secret law . . . does not offer protection against discovery by . . . so-called reverse engineering[.]” *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 476 (1974). However, “the term ‘reverse engineering’ is not a talisman that may immunize the theft of trade secrets.” *Telerate Systems, Inc. v. Caro*, 689 F. Supp. 221, 233 (S.D.N.Y. 1988). The relevant inquiry is whether the means to obtain the alleged trade secret were proper or “honest,” as opposed to being obtained by virtue of a confidential relationship with an employer. *See Franke v. Wiltschek*, 209 F.2d 493, 495 (2d Cir. 1953); *Telerate*, 689 F. Supp. at 233. Reverse engineering a product to determine its design specifications is, therefore, permissible so long as the means used to get the information necessary to reverse engineer is in the public domain, and not through the confidential relationship established with the maker or owner of the product.

One court, not satisfied with this distinction, has held that even where a product is out in the public domain, and was thus subject to being reverse engineered by a purchaser, trade secret status remains intact because the defendant’s former employment with the plaintiff was the only basis for the defendants being “able to select particular items from a vast sea of public information.” *See Monovis, Inc. v. Aquino*, 905 F.

⁹ “Reverse engineering is the process by which an engineer takes an already existing product and works backward to re-create its design and/or manufacturing process.” *United Technologies Corp. by Pratt & Whitney v. F.A.A.*, 102 F.3d 688, 690 n.1 (2d Cir. 1996).

Supp. 1205, 1228 (W.D.N.Y. 1994). This view of the law would effectively eviscerate any benefit reverse engineering would provide in the preliminary injunction analysis as applied to trade secrets, forestall healthy notions of commercial competitiveness, and heavily contribute to an inert marketplace where products can only be developed and sold under an impenetrable cloak of originality. It is therefore rejected.

Plaintiff has presented no evidence that the means used by defendants to obtain the alleged trade secret were improper or dishonest. In short, it has no evidence Corlew actually stole the design specifications. It instead necessarily relies upon an inference — that the only way defendants could develop, market, and sell their products in so short of time is if Corlew stole the design specification information — that is, as far as the evidence to this point shows, is [sic] unjustified. Plaintiff does not seem to argue that reverse engineering is impossible, just that it would take a great deal of time, skill, and expense, and that the lack thereof demonstrates that the design specifications must have been stolen. Defendants have argued that the plaintiff's products were simple, consisting of non-technical and few parts, that reverse engineering would take little time, and that, in any event, they only reverse engineered a small fraction, not all, of plaintiff's products. Plaintiff has not sufficiently rebutted these contentions. Thus, because plaintiff has failed to make a clear showing that defendants improperly obtained and reverse-engineered its products, trade secret protection at this stage of the litigation is improper. *See, e.g., Bridge C.A.T. Scan Associates v. Technicare Corp.*, 710 F.2d 940, 946-47 (2d Cir. 1983) (lack of evidence that means to receive information that plaintiff claimed was trade secret were improper mandated denying preliminary injunctive relief).

COMMENTS AND QUESTIONS

1. Why is reverse engineering lawful? If, as the Commissioners suggested, one purpose of trade secret law is to promote standards of commercial ethics, doesn't there seem to be something wrong with taking apart a competitor's product in order to figure out how to copy it? Does reverse engineering benefit only those competitors who are not smart enough to develop ideas or products for themselves?

In *Chicago Lock Co. v. Fanberg*, 676 F.2d 400 (9th Cir. 1982), the plaintiff, a company that made locks, sued a locksmith who compiled a list of master key codes for the plaintiff's locks by soliciting information from those who had picked the locks on behalf of their clients. The court rejected the claim, holding that the owners of the individual locks had the right to open them, and therefore to authorize others to reverse engineer the key codes:

A lock purchaser's own reverse-engineering of his own lock, and subsequent publication of the serial number-key code correlation, is an example of the independent invention and reverse engineering expressly allowed by trade

secret doctrine.⁴ Imposing an obligation of nondisclosure on lock owners here would frustrate the intent of California courts to disallow protection to trade secrets discovered through “fair and honest means.” *See id.* Further, such an implied obligation upon the lock owners in this case would, in effect, convert the Company’s trade secret into a state-conferred monopoly akin to the absolute protection that a federal patent affords. Such an extension of California trade secrets law would certainly be preempted by the federal scheme of patent regulation.

Appellants, therefore, cannot be said to have procured the individual locksmiths to breach a duty of nondisclosure they owed to the Company, for the locksmiths owed no such duty.

2. Reverse engineering may be explained as a legal rule designed to weaken trade secret protection relative to patent protection. Can you think of reasons why we would want to weaken trade secret protection? *See Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974) (patent law does not preempt trade secret law, in part because the reverse engineering rule “weakens” trade secret law).

3. Consider the recurring question of whether the parties can agree to override trade secret law. Suppose that the owner of a trade secret includes in a license or sale contract a provision prohibiting the buyer from reverse engineering the product. Is that contractual provision enforceable? The courts are split. *Compare K & G Oil Tool & Serv. Co. v. G & G Fishing Tool Serv.*, 158 Tex. 94, 314 S.W.2d 782, 785-86 (1958) (contract preventing disassembly of tools to protect trade secrets was enforceable), *with Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 265-67 (5th Cir. 1988) (contract provision prohibiting reverse engineering of software void as against public policy).

4. Trade secret law does not protect owners against legitimate purchasers who discover the secret through reverse engineering. But does the possibility that a product might be reverse engineered foreclose *any* trade secret protection? In *Data General Corp. v. Grumman Systems Support Corp.*, 825 F. Supp. 340, 359 (D. Mass. 1993), the court upheld a jury’s verdict that Grumman had misappropriated trade secrets contained in object code form in Data General’s computer program, despite the fact that many copies of the program had been sold on the open market. The court reasoned: “With the exception of those who lawfully licensed or unlawfully misappropriated MV/ADEX, Data General enjoyed the exclusive use of MV/ADEX. Even those who obtained MV/ADEX and were able to *use* MV/ADEX were unable to discover its trade secrets because MV/ADEX was distributed only in its object code

⁴ If a group of lock owners, for their own convenience, together published a listing of their own key codes for use by locksmiths, the owners would not have breached any duty owed to the Company. Indeed, the Company concedes that a lock owner’s reverse engineering of his own lock is not “improper means.”

form, which is essentially unintelligible to humans.” The court noted that Data General took significant steps to preserve the secrecy of MV/ADEX, requiring that all users of the program sign licenses agreeing not to disclose the program to third parties. Under this decision, a defendant may have to prove that they had some sort of legitimate access to the plaintiff’s information — for example, by demonstrating that they reverse engineered it from a publicly available product — even though the product containing the secret is widely distributed.

Similarly, in *Reingold v. Swiftships*, 126 F.3d 645 (5th Cir. 1997), the court rejected a claim that a boat hull mold could not be a trade secret because it could readily be reverse engineered. While reverse engineering may protect one who engages in it, the court held, it does not protect those who actually acquire the secret by improper means. Should it matter whether the reverse engineering is very difficult or easy enough that any competitor could do it? How many firms have actually reverse engineered the product?

The *Data General* cases suggest that reasonable efforts to protect the secrecy of an idea contained in a commercial product — such as locks, black boxes, or the use of unreadable code — may suffice to maintain trade secret protection even after the product itself is widely circulated. Does this result make sense? For a different approach, see *Videotronics v. Bend Electronics*, 564 F. Supp. 1471, 1476 (D. Nev. 1983) (holding that software cannot be a trade secret if it is publicly distributed and can be readily copied).

5. If a company is looking for a piece of information—say, the solution to a given technical problem—society believes that the company should be allowed free access to information in the public domain. The reason is that minimizing the search costs of the company is thought to be a social good, consistent with some level of protection for the prior investment of others. In a similar vein, suppose the costs of obtaining that information from the public domain are very high, but the costs (to the company) of stealing it from a competitor are very low. Should society punish — and therefore deter — the theft? Wouldn’t that simply create an inefficiency, since the company could get the information but would have to incur greater search costs? Cf. David Friedman, William Landes & Richard Posner, *Some Economics of Trade Secret Law*, 5 J. ECON. PERSPECTIVES 61, 62 (1991) (arguing that trade secret law prohibits only costly means of obtaining competitors’ information, while encouraging cheaper forms of obtaining information such as reverse engineering). Are there other considerations that militate in favor of requiring such a search?

PROBLEMS

Problem II-12. Atech and Alpha both manufacture complex medical devices used in diagnosing a variety of ailments. These devices are sold almost exclusively to hospitals since they cost in excess of \$100,000 each. There are several hundred Atech devices currently in use in hospitals throughout the country. Atech, which claims a trade secret in the internal workings of its device, carefully monitors the purchasers of its device. Alpha pays a third party to buy a device from Atech without disclosing that it will be given to Alpha. Once it has obtained the device, Alpha disassembles it and studies it in order to compare it to Alpha's own device. In the course of opening it up, Alpha's engineers pick two internal padlocks on the Atech device. When Atech discovers that Alpha has obtained the device, it demands the unit's return, offering to refund the purchase price. Alpha refuses, and Atech sues for misappropriation of trade secrets.

a) Assume that Atech's trade secrets were worth \$5 million. Assume further that the padlocks cost \$5 each, and that it costs \$100 per lock to pick these padlocks. Has Atech taken reasonable precautions to preserve its secrets? What other security measures must Atech take—and at what cost—both to deter Alpha (and others) from reverse engineering and to preserve its secrecy? Does Atech's sale of the products on the open market automatically preclude a finding of secrecy?

b) Assume Atech has presented the buyer of the machine with a contract that licenses (rather than sells) the machine, subject to the following restrictions: (a) the buyer is prohibited from disclosing anything she learns during the course of using the machine; (b) the buyer is prohibited from reselling the machine; and (c) the buyer is liable for Atech's damages in the event that any third party learns of Atech's secrets from the buyer or the buyer's machine. Is such an agreement enforceable? Would you advise a client thinking of licensing an Atech machine to sign this contract? How would you redraft the agreement to protect the buyer?

c) Assume that after Alpha's engineers picked the padlocks, they gained access to the inner workings of the machine. Assume further that they discovered numerous flaws in the imaging mechanism that caused potentially serious defects in the images (and hence the diagnoses) *stemming* from the Atech machine. Finally, assume that Alpha's engineers not only fixed these problems but significantly improved on Atech's design and hence the reliability of the machine. Should these facts affect Alpha's liability? Atech's remedy?

Problem II-13. Bonnie Bluenote, a world-famous blues guitarist, is noted for her distinctive sound, which she gets by tuning her guitar specially every time before she plays. Although the *guitar* itself is a standard professional model, Bonnie's adjustments of settings on the guitar, amplifier, and sound system combine to produce a distinctive sound. Because the sound is so important to her image, Bonnie guards it

carefully. While she is tuning her guitar, only band members and close associates are allowed in the room. When she records in a new studio, she has the sound engineers sign nondisclosure agreements.

One day Freddie Fender-Rhodes, a big fan of Bonnie's and a budding bluesman himself, is hanging around outside the studio where Bonnie is recording her newest album. He happens to see an ID tag, worn by all guests in the studio, in the wastebasket. He fills in his name and walks into the studio. The band members and recording engineers, seeing the tag, let Freddie stay. He observes how Bonnie tunes her guitar, sees the soundboard settings, and makes extensive mental notes.

Five months later, Bonnie is shocked to see in a record store a CD by Freddie titled "The Bonnie Bluenote Sound." Then she discovers that Freddie is planning to publish an article in Blues Guitar magazine revealing the secrets to Bonnie's sound. Does she have any recourse against Freddie? What additional precautions should she have taken?

2. Public Policy Limitation

Courts have long recognized that trade secret protection can "implicate the interest in freedom of expression or advance another significant public interest," RESTATEMENT (THIRD) OF UNFAIR COMPETITION, §40, comment c, and recognized a limited privilege to disclose trade secrets. *See* DAVID W. QUINTO & STUART H. SINGER, 1 TRADE SECRETS: LAW AND PRACTICE §3.02; 1 MELVIN JAGER, TRADE SECRETS LAW §3:14. The RESTATEMENT (THIRD) OF UNFAIR COMPETITION notes that the exception

depends upon the circumstances of the particular case, including the nature of the information, the purpose of the disclosure, and the means by which the actor acquired the information. A privilege is likely to be recognized, for example, in connection with the disclosure of information that is relevant to public health or safety, or to the commission of a crime or tort, or to other matters of substantial public concern.

§40, comment c.

As Professor Peter Menell has explained, this framing offers relatively little clarity or solace to those who seek to report corporate wrongdoing. *See* Peter S. Menell, *Tailoring a Public Policy Exception to Trade Secret Protection*, 105 CAL. L. REV. (forthcoming 2017). Nearly all businesses require their employees to sign NDAs as a condition of employment. Such agreements are essential to being able to establish the reasonable precautions necessary to secure trade secret protection. They are also broad and strict. What if any employee uncovers evidence of regulatory violations, fraud, or even criminal violations at their company? Do they violate their NDA by consulting an attorney or disclosing documents revealing the illegal activity to the government?

At first blush, RESTATEMENT (THIRD) OF UNFAIR COMPETITION, §40, comment *c*, appears to provide some leeway to report the illegal activity. The murky contours of the public policy limitation, however, would give a potential whistleblower pause. How can the employee evaluate “the circumstances of the particular case, including the nature of the information, the purpose of the disclosure, and the means by which the actor acquired the information?” At a minimum, its characterization as a defense that turns on a case-by-case balancing of potentially subjective factors means that an employee or contractor who divulges proprietary information even to the government could be sued for their breach of an NDA. The prospective whistleblower would likely have to consult an attorney, with the attendant costs, and the very act of discussing the allegedly illegal activity with the lawyer could create exposure for violating the NDA. More generally, most prospective whistleblowers will not even be aware of the public policy exception to their NDA absent consulting an attorney.

Cafasso v. Gen. Dynamics C4 Sys., U.S. ex rel. Cafasso v. General Dynamics C4 Systems, Inc., 2009 WL 1457036 (D. Ariz. 2009), *aff’d* 637 F.3d 1047 (9th Cir. 2011), serves as a cautionary tale of the trade secret risks that whistleblowers run. While working as a Chief Scientist at General Dynamics C4 Systems (“GDC4S”), a government aerospace contractor, Mary Cafasso became aware of corporate decisions that she believed to be in violation of the company’s obligations under its government contracts. Her reporting of these concerns internally went unheeded. Upon learning that her position was being eliminated, she hurriedly downloaded a large number of confidential files that could support her suspicion. She subsequently filed a whistleblower (*qui tam*) action against her former employer. Her employer learned of Cafasso’s removal of proprietary documents and filed suit against her in state court for breach of contract, misappropriation of trade secrets, and conversion. Shortly thereafter, Cafasso filed a False Claims Act (FCA) action under seal. GDC4S asserted counterclaims in the federal action based on breach of the NDA, misappropriation of trade secrets, and conversion based on her removing computer files as part of FCA action and reviewing these documents with her attorney.

After granting summary judgment to GDC4S on Cafasso’s FCA action, the district court determined that Cafasso’s disclosure of the documents in question to her attorney breached her NDA. The court rejected a public policy privilege, explaining that

Public policy does not immunize Cafasso. Cafasso confuses protecting whistleblowers from retaliation for lawfully reporting fraud with immunizing whistleblowers for wrongful acts made in the course of looking for evidence of fraud. The limitation of statutory protection for retaliation to ‘lawful acts done by the employee’ weighs against any inference of a broad privilege for Cafasso to breach her contract with GDC4S. Statutory incentives encouraging investigation of possible fraud under the FCA do not establish a public policy in favor of

violating an employer's contractual confidentiality and nondisclosure rights by wholesale copying of files admittedly containing confidential, proprietary, and trade secret information.

2009 WL 1457036 at *14. The court ordered Cafasso to pay \$300,000 in attorneys' fees for the breach of contract action. The award was based principally on disclosing the proprietary documents to her attorney for purposes of filing a sealed complaint in federal court informing the government of what Ms. Cafasso believed was fraudulent activity.

On appeal, the Ninth Circuit declined to adopt a public exception in a case involving "vast and indiscriminate appropriation" of confidential files, even for the purpose of reporting allegedly illegal activity to her attorney and the government. The court emphasized the overbreadth of the document retrieval, notwithstanding that Cafasso was under substantial time pressure in gathering the documents. The court expressed concern about the sensitivity of the information, yet it was all information to which Cafasso was authorized to view, and she limited disclosure to her attorney (who was also duty-bound to protect the information) and the government through a sealed court filing.

How many employees are willing to run that risk? At a minimum, the RESTATEMENT's characterization of the public policy exception as a defense that turns on a case-by-case balancing of potentially subjective factors means that an employee or contractor who divulges proprietary information even to the government could be sued for their breach of an NDA. Whistleblowers jeopardize their career, financial security, emotional stability, health insurance, and social community. Many struggle to find other positions in their field. See Menell, *Tailoring a Public Policy Exception to Trade Secret Protection*, *supra*. The prospective whistleblower would likely have to consult an attorney, with the attendant costs, and could still face some exposure. More generally, most prospective whistleblowers will not even be aware of this exception to their NDA absent consulting an attorney. As the authors of a recent empirical study examining 230 corporate frauds at large U.S. companies note, "[t]he surprising part is not that most employees do not talk; it is that some talk at all." Alexander Dyck, Adair Morse & Luigi Zingales, *Who Blows the Whistle on Corporate Fraud?*, 65 J. FIN. 2213, 2245 (2010).

As a solution to the problem of reporting illegal activity that might be considered confidential, Professor Menell proposed that Congress adopt a sealed disclosure/trusted intermediary safe harbor that would insulate whistleblowers and their counsel from trade secret liability for disclosing trade secret information *in confidence* to government officials or as part of lawsuit alleging retaliation by an employer. This statutory exception to trade secret liability would provide clear assurance to potential whistleblowers that they do not violate their NDAs merely by consulting legal counsel regarding reporting allegedly illegal conduct to a responsible govern-

ment official through a confidential channel. In addition, this safe harbor would insulate lawyers advising potential whistleblowers about their options and serving as conduits for presenting evidence of allegedly illegal conduct to the government. Professor Menell further advocated a requirement that NDAs prominently include notice of the law reporting safe harbor to ensure that those with knowledge of illegal conduct are aware of this important public policy limitation on NDAs and exercise due care with trade secrets in reporting such activity.

Congress followed this recommendation in crafting the Defend Trade Secrets Act. See James Pooley, *New Federal Trade Secret Law Would Protect Whistleblowers*, LAW.COM (Feb. 5, 2016). The public policy exception provides:

(B) IMMUNITY FROM LIABILITY FOR CONFIDENTIAL DISCLOSURE OF A TRADE SECRET TO THE GOVERNMENT OR IN A COURT FILING

(1) IMMUNITY.—An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that—

(A) is made—

(i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and

(ii) solely for the purpose of reporting or investigating a suspected violation of law; or

(B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

(2) USE OF TRADE SECRET INFORMATION IN ANTI-RETALIATION LAWSUIT.—An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual—

(A) files any document containing the trade secret under seal; and

(B) does not disclose the trade secret, except pursuant to court order.

(3) NOTICE.—

(A) **IN GENERAL.**—An employer shall provide notice of the immunity set forth in this subsection in any contract or agreement with an employee that governs the use of a trade secret or other confidential information.

(B) **POLICY DOCUMENT.**—An employer shall be considered to be in compliance with the notice requirement in subparagraph (A) if the employer provides a cross-reference to a policy document provided

to the employee that sets forth the employer's reporting policy for a suspected violation of law.

(C) NON-COMPLIANCE.—If an employer does not comply with the notice requirement in subparagraph (A), the employer may not be awarded exemplary damages or attorney fees under subparagraph (C) or (D) of section 1836(b)(3) in an action against an employee to whom notice was not provided.

(D) APPLICABILITY.—This paragraph shall apply to contracts and agreements that are entered into or updated after the date of enactment of this subsection.

(4) EMPLOYEE DEFINED.—For purposes of this subsection, the term ‘employee’ includes any individual performing work as a contractor or consultant for an employer.

(5) RULE OF CONSTRUCTION.—Except as expressly provided for under this subsection, nothing in this subsection shall be construed to authorize, or limit liability for, an act that is otherwise prohibited by law, such as the unlawful access of material by unauthorized means.

DTSA §7, *codified at* 18 U.S.C. §1833.

COMMENTS AND QUESTIONS

1. Professor Menell contends that this new defense properly focuses trade secret protection on commercial morality and promoting legitimate competition, not shielding illegal activity. Do you agree? Could someone who wishes to steal a trade secret abuse this protection? How?

2. The DTSA immunity provision is built upon the idea that lawyers and the government can serve as “trusted intermediaries.” *See* Menell, *Tailoring a Public Policy Exception to Trade Secret Protection*, *supra*. Federal law provides that

Whoever, being an officer or employee of the United States or. . . any person acting [as an agent thereof including an employee of a private sector organization who is assigned to a government agency] publishes, divulges, discloses, or makes known in any manner or to any extent not authorized by law any. . . trade secrets. . . shall be fined under this title, or imprisoned not more than one year, or both; and shall be removed from office or employment.

18 U.S.C. §1905. This provision is essential to the operation of the federal courts and many agencies, such as the Food and Drug Administration and the Patent and Trademark Office, which routinely handle confidential information.

3. Would the DTSA immunity provision have assisted Edward Snowden in his effort to blow the whistle on the National Security Agency's surveillance activities? As

Professor Menell cautions, the sealed disclosure/trusted intermediary safe harbor depends critically upon the trustworthiness of government officials to whom illegal activity is reported. Corrupting forces can influence government as well as private actors. President Nixon approved the bugging of his political rivals. Contractors can develop cozy relationships with the agencies with whom they work. The revolving door of hiring government officials as well as lobbying of political officials can undermine an agency's objectivity. Various anticorruption laws, such as the Ethics in Government Act of 1978, counteract those forces. *See generally* ROBERT G. VAUGHN, *THE SUCCESSES AND FAILURES OF WHISTLEBLOWER LAWS* (2012). Nonetheless, a government agency can be the source of the misconduct. The sealed disclosure/trusted intermediary safe harbor is ill-equipped to address such challenges, although it contributes to general awareness of whistleblowing and anti-corruption policies.

4. Should the whistleblower right be broader, allowing for *public disclosure* of trade secrets in some circumstances? Professor David Levine argues that some enterprises, like companies that make voting machines, are so important to the public that the way they work should be transparent. *See* David S. Levine, *Secrecy and Unaccountability: Trade Secrets in Our Public Infrastructure*, 59 FLA. L. REV. 135 (2007).

5. Professor Deepa Varadarajan argues for a broader right to make beneficial uses of a secret, for instance, to improve on the original product or to protect public health. *See* Deepa Varadarajan, *Trade Secret Fair Use*, 83 FORDHAM L. REV. 1401 (2014). Would such a regime be feasible?

E. AGREEMENTS TO KEEP SECRETS

As we have seen, trade secret law imposes certain limitations on the owner of a trade secret. To qualify for trade secret protection, information must not be generally known, must be valuable, and must not be disclosed. But can an owner of information avoid those restrictions by requiring others to *agree* to keep the information secret, whether or not the information meets the requirements for protection? The question is fundamental in intellectual property law.

Licenses are generally considered good from an economic standpoint because they promote efficiency. The company (or individual) that develops a new product may not be in the best position to market it, particularly if the invention has uses in several different fields. Absent licenses, that company would either have to sell the product outright, use it incompletely or inefficiently, enter a new field itself, or not use it at all. Private contract remedies allow the market to reorder itself efficiently and still determine the appropriate reward for invention. But we cannot always rely on the market to determine an efficient outcome. Indeed, intellectual property in general is an example of pervasive market failure, a failure that may color the role of contract law.

Warner-Lambert Pharmaceutical Co. v. John J. Reynolds, Inc.
United States District Court for the Southern District of New York
178 F. Supp. 655 (S.D.N.Y. 1959)

BRYAN, District Judge.

Plaintiff sues under the Federal Declaratory Judgment Act, 28 U.S.C. §§2201 and 2202, for a judgment declaring that it is no longer obligated to make periodic payments to defendants based on its manufacture or sale of the well known product “Listerine,” under agreements made between Dr. J. J. Lawrence and J. W. Lambert in 1881, and between Dr. Lawrence and Lambert Pharmacal Company in 1885. Plaintiff also seeks to recover the payments made to defendants pursuant to these agreements since the commencement of the action.

Plaintiff is a Delaware corporation which manufactures and sells Listerine, among other pharmaceutical products. It is the successor in interest to Lambert and Lambert Pharmacal Company which acquired the formula for Listerine from Dr. Lawrence under the agreements in question. Defendants are the successors in interest to Dr. Lawrence.

Jurisdiction is based on diversity of citizenship.

For some seventy-five years plaintiff and its predecessors have been making the periodic payments based on the quantity of Listerine manufactured or sold which are called for by the agreements in suit. The payments have totaled more than twenty-two million dollars and are presently in excess of one million five hundred thousand dollars yearly. . . .

[J.J. Lawrence developed the formula for Listerine in 1880. He licensed the secret formula exclusively to Lambert (later Warner-Lambert) in 1881 under a contract which provided that

I, Jordan Lambert, hereby agree for myself, my heirs, executors and assigns to pay monthly to Dr. Lawrence, his heirs, executors or assigns, the sum of twenty dollars for each and every gross of said Listerine hereafter sold by myself, my heirs, executors or assigns.

The amount was reduced by subsequent agreement to \$6.00 per gross.]

The agreements between the parties contemplated, it is alleged, “the periodic payment of royalties to Lawrence for the use of a trade secret, to wit, the secret formula for” Listerine. After some modifications made with Lawrence’s knowledge and approval, the formula was introduced on the market. The composition of the compound has remained the same since then and it is still being manufactured and sold by the plaintiff.

It is then alleged that the “trade secret” (the formula for Listerine) has gradually become a matter of public knowledge through the years following 1881 and prior to

1949, and has been published in the United States Pharmacopoeia, the National Formulary and the Journal of the American Medical Association, and also as a result of proceedings brought against plaintiff's predecessor by the Federal Trade Commission. Such publications were not the fault of plaintiff or its predecessors. . . .

(1)

The plaintiff seems to feel that the 1881 and 1885 agreements are indefinite and unclear, at least as to the length of time during which they would continue in effect. I do not find them to be so. These agreements seem to me to be plain and unambiguous. . . .

The obligation to pay on each and every gross of Listerine continues as long as this preparation is manufactured or sold by Lambert and his successors. It comes to an end when they cease to manufacture or sell the preparation. . . . The plain meaning of the language used in these agreements is simply that Lambert's obligation to pay is co-extensive with manufacture or sale of Listerine by him and his successors. . . .

(3)

However, plaintiff urges with vigor that the agreement must be differently construed because it involved the conveyance of a secret formula. The main thrust of its argument is that despite the language which the parties used the court must imply a limitation upon Lambert's obligation to pay measured by the length of time that the Listerine formula remained secret.

To sustain this theory plaintiff relies upon a number of cases involving the obligations of licensees of copyrights or patents to make continuing payments to the owner or licensor, and argues that these cases are controlling here. . . .

. . . [A]ll [these cases hold] is that when parties agree upon a license under a patent or copyright the court will assume, in the absence of express language to the contrary, that their actual intention as to the term is measured by the definite term of the underlying grant fixed by statute.

It is quite plain that were it not for the patent and copyright features of such license agreements the term would be measured by use. . . .

In the patent and copyright cases the parties are dealing with a fixed statutory term and the monopoly granted by that term. This monopoly, created by Congress, is designed to preserve exclusivity in the grantee during the statutory term and to release the patented or copyrighted material to the general public for general use thereafter. This is the public policy of the statutes in reference to which such contracts are made and it is against this background that the parties to patent and copyright license agreements contract.

Here, however, there is no such public policy. The parties are free to contract with respect to a secret formula or trade secret in any manner which they determine for

their own best interests. A secret formula or trade secret may remain secret indefinitely. It may be discovered by someone else almost immediately after the agreement is entered into. Whoever discovers it for himself by legitimate means is entitled to its use.

But that does not mean that one who acquires a secret formula or a trade secret through a valid and binding contract is then enabled to escape from an obligation to which he bound himself simply because the secret is discovered by a third party or by the general public. I see no reason why the court should imply such a term or condition in a contract providing on its face that payment shall be co-extensive with use. To do so here would be to rewrite the contract for the parties without any indication that they intended such a result. . . .

One who acquires a trade secret or secret formula takes it subject to the risk that there be a disclosure. The inventor makes no representation that the secret is non-discoverable. All the inventor does is to convey the knowledge of the formula or process which is unknown to the purchaser and which in so far as both parties then know is unknown to any one else. The terms upon which they contract with reference to this subject matter are purely up to them and are governed by what the contract they enter into provides.

If they desire the payments or royalties should continue only until the secret is disclosed to the public it is easy enough for them to say so. But there is no justification for implying such a provision if the parties do not include it in their contract, particularly where the language which they use by fair intendment provides otherwise. . . .

COMMENTS AND QUESTIONS

1. The scope of trade secret protection is limited, not by a fixed term of years but by the length of time the information remains secret. Indeed, trade secrets become a part of the public domain once secrecy is lost, and their owner cannot prevent even direct copying. It seems odd that contract law would require royalty payments from Warner-Lambert for 80 years (or presumably 130 or more years, as Listerine is still sold commercially), while every other competitor can copy the formula for free. Are there sound reasons for such a rule?

One such reason may be the economic value of freedom of contract. If a party chooses to contract to pay royalties for as long as it uses a product, it is free to do so, though courts will presume that contract rights over IP expire when the IP expires. *See Nova Chem., Inc. v. Sekisui Plastics Co.*, 579 F.3d 319 (3d Cir. 2009) (distinguishing *Warner-Lambert*: “Here, in contrast, nothing in the License Agreement suggests that the parties intended any ongoing obligations with respect to trade secrets after the 1995 termination of NOVA’s obligation to maintain the secrecy of Sekisui’s technical information.”). Presumably, the amount of the royalty payments as well as

their duration will reflect the value of the secret to the buyer, discounted by the likelihood of public disclosure. But doesn't this argument also apply to extensions of the patent or copyright term as well? Compare *Meehan v. PPG Indus.*, 802 F.2d 881, 886 (7th Cir. 1986), and *Boggild v. Kenner Prods.*, 776 F.2d 15, 1320-21 (6th Cir. 1985), which hold that it is illegal to patent or copyright misuse to agree to extend a patent or copyright beyond its term. Why does contract law appear to override trade secret law but not patent or copyright law?

2. The *Warner-Lambert* result is controversial. The RESTATEMENT (THIRD) OF UNFAIR COMPETITION takes the position that nondisclosure agreements which purport to protect information in the public domain may be unenforceable as an unreasonable restraint on trade. See §41, Comment *d*, at 472. Further, the Restatement notes that "because of the public interest in preserving access to information that is in the public domain, such an agreement will not ordinarily estop a defendant from contesting the existence of a trade secret." §39, Comment *d*, at 430. A number of cases support this view, which seems at odds with *Warner-Lambert*. See, e.g., *Gary Van Zeeland Talent, Inc. v. Sandas*, 267 N.W.2d 242 (Wis. 1978); *Sarkes Tarzian, Inc. v. Audio Devices, Inc.*, 166 F. Supp. 250 (S.D. Cal. 1958), *aff'd*, 283 F.2d 695 (9th Cir. 1960). In *Aqua Connect, Inc. v. Code Rebel, Inc.*, 2012 WL 469737 (C.D. Cal. Feb. 13, 2012), for example, the court rejected an effort to prohibit reverse engineering by standard form contract:

This Court finds that the FAC does not support a legally cognizable trade misappropriation claim because the only improper means pled in the FAC is reverse engineering, which according to California law, "shall not be considered improper means" by itself. Plaintiff argues that the EULA form contract and its alleged breach by Movants can legally convert the alleged reverse engineering into an "improper means" of acquiring Plaintiff's trade secret. The Court finds, however, that Plaintiff's argument lacks merit. Justice Moreno in his concurrence to a California Supreme Court decision, states that "nowhere has it been recognized that a party wishing to protect proprietary information may employ a consumer form contract to, in effect, change the statutory definition of 'improper means' under trade secret law to include reverse engineering, so that an alleged trade secret holder may bring an action." *DVD Copy Control Ass'n, Inc. v. Bunner*, 31 Cal. 4th 864, 901 n.5, 4 Cal. Rptr. 3d 69, 75 P.3d 1 (2003) (Moreno, J., concurring).

An analysis of the statutory language of the California Uniform Trade Secret Act corroborates Justice Moreno's concurrence. Civil Code section 3426.1, subdivision (a) specifically states that "[r]everse engineering alone shall not be considered improper means." Thus, from the plain language of the statute, reverse engineering must be combined with some other improper action in order for it to form the basis of a cognizable misappropriation claim. The Legislative

Committee Comments clarifies that the word “alone” refers to the fact that the reverse engineered item would have to be obtained “by a fair and honest means, such as purchase of the item on the open market for reverse engineering to be lawful.” Civil Code §3426.1 (Legislative Committee Comment). Accordingly, reverse engineering is not an improper means of acquiring trade secret information when defendants acquire the item, from which the information is derived, through fair and honest means. Here, the Court finds that the FAC is insufficiently pled because it does not allege that the ACTS trial software was obtained through unfair or dishonest means. FAC ¶8 (alleging that Movants acquired ACTS by downloading a trial version of ACTS). Though a breach of the EULA may support a cognizable breach of contract claim, the Court finds that the mere presence of the EULA does not convert reverse engineering into an “improper means” within the definition of California trade secret law.

On the other hand, the Federal Circuit has seemingly endorsed the *Warner-Lambert* approach, holding that the issuance of a patent did not extinguish the confidentiality obligation imposed by a nondisclosure agreement, even though the issuance of the patent destroyed the trade secret that was the basis for the agreement. *Celeritas Technologies v. Rockwell Int’l Corp.*, 150 F.3d 1354 (Fed. Cir. 1998). The equities in that case might be thought to favor the plaintiff: the patent was held invalid, and so offered the plaintiff no relief against a theft of its technology. *Cf. Aronson v. Quick Point Pencil Co.*, 440 U.S. 257 (1979) (holding that the contract obligated licensee to continue paying royalties on an invention even though licensor’s patent application had been rejected). But isn’t that the risk a trade secret owner takes in deciding to patent (and therefore disclose) her invention? The Seventh Circuit has held that courts had no power to review business nondisclosure agreements for reasonableness, even though employee agreements were subject to a reasonableness requirement. *IDX Systems v. Epic Systems*, 285 F.3d 581 (7th Cir. 2002). And in *Bernier v. Merrill Air Engineers*, 770 A.2d 97 (Me. 2001), the Maine Supreme Court held that an employee violated a nondisclosure agreement by disclosing information that did not qualify as a trade secret.

3. Should such restrictions be governed by intellectual property law — making them unenforceable — or by contract law, which presumably would enforce them? The answer to that question will determine whether intellectual property laws (including trade secret laws) constitute binding governmental rules balancing competing interests or merely “default” rules that parties may opt to change. In practice, the courts have walked a hazily defined middle line, refusing to hold that intellectual property statutes preempt contracts which alter their terms, but also refusing to enforce certain contracts that go “too far” in upsetting the balance the intellectual property laws have struck.

4. What remedies are appropriate in a case in which a court enforces a contract that extends beyond the scope of trade secret law? Trade secret remedies (which as we will see can include injunctions, punitive damages, and even criminal penalties)? Or only traditional contract remedies?

F. THE SPECIAL CASE OF DEPARTING EMPLOYEES

Many of the thorniest issues in trade secret (and contract) law arise when employees leave a company in order either to start their own business or to take a job elsewhere. Such cases present a fundamental clash of rights between an employee and an employer, as Judge Adams suggests in the following excerpt from *SI Handling Systems v. Heisley*, 753 F.2d 1244, 1266-69 (3d Cir. 1985) (Adams, J., concurring):

When deciding the equitable issues surrounding the request for a trade secret injunction, it would seem that a court cannot act as a pure engineer or scientist, assessing the technical import of the information in question. Rather, the court must also consider economic factors since the very definition of “trade secret” requires an assessment of the competitive advantage a particular item of information affords to a business. Similarly, among the elements to be weighed in determining trade secret status are the value of the information to its owner and to competitors, and the ease or difficulty with which the information may be properly acquired or duplicated.

While the majority may be correct in suggesting that the trial court need not always “engage in extended analysis of the public interest,” the court on occasion must apply the elements of sociology. This is so since trade secret cases frequently implicate the important countervailing policies served on one hand by protecting a business person from unfair competition stemming from the usurpation of trade secrets, and on the other by permitting an individual to pursue unhampered the occupation for which he or she is best suited. “Trade secrets are not . . . so important to society that the interests of employees, competitors and competition should automatically be relegated to a lower position whenever trade secrets are proved to exist.” Robison, *The Confidence Game: An Approach to the Law About Trade Secrets*, 25 ARIZ. L. REV. 347, 382 (1983).

These observations take on more force, I believe, when a case such as the present one involves the concept of “know-how.” Under Pennsylvania law an employee’s general knowledge, skill, and experience are not trade secrets. Thus in theory an employer generally may not inhibit the manner in which an employee uses his or her knowledge, skill, and experience — even if these were acquired during employment. When these attributes of the employee are inextricably related to the information or process that constitutes an employer’s competitive advantage — as increasingly seems to be the case in newer, high-

technology industries — the legal questions confronting the court necessarily become bound up with competing public policies.

It is noteworthy that in such cases the balance struck by the Pennsylvania courts apparently has favored greater freedom for employees to pursue a chosen profession. The courts have recognized that someone who has worked in a particular field cannot be expected to forego the accumulated skills, knowledge, and experience gained before the employee changes jobs. Such qualifications are obviously very valuable to an employee seeking to sell his services in the marketplace. A person leaving one employer and going into the marketplace will seek to compete in the area of his or her greatest aptitude. In light of the highly mobile nature of our society, and as the economy becomes increasingly comprised of highly skilled or high-tech jobs, the individual's economic interests will more and more be buffeted by competitive advantage. Courts must be cautious not to strike a balance that unduly disadvantages the individual worker. . . .

In my view a proper injunction necessarily would impose the minimum restraint upon the free utilization of employee skill consistent with denying unfaithful employees an advantage from misappropriation of information. Thus, as I see it, the district court, on remand, should fashion an injunction that extends only so long as is essential to negate any unfair advantage that may have been gained by the appellants.

The majority opinion in *SI Handling* partially upheld a finding that two former employees had misappropriated trade secrets, but it vacated an injunction against them in order for the district court to reconsider its scope.

Departing employee cases represent over two-thirds of all trade secret cases. See David S. Almeling, et al., *A Statistical Analysis of Trade Secret Litigation in State Courts*, 46 GONZ. L. REV. 57, 60 (2011).

1. Employee Trade Secrets

i. The Common Law Obligation to Assign Inventions

At common law, ownership of inventions — including ownership of patent rights — was determined according to an employee's status under a long line of common law employee invention cases. In general, employees fall into one of three categories: (1) employees “hired to invent,” which results in employer ownership of the invention; (2) employees who invent on the employer's time or using its resources, which results in a limited, nonexclusive “shop right” on the part of the employer to practice the invention; and (3) an employee's “independent invention,” in which case the employee owns the invention. See generally *United States v. Dubilier Condenser Corp.*,

***F. THE SPECIAL CASE OF DEPARTING EMPLOYEES* ♪ II-73**

289 U.S. 178 (1933); John C. Stedman, *Employer-Employee Relations*, in FREDRIK NEUMEYER, *THE EMPLOYED INVENTOR IN THE UNITED STATES* 30, 40-41 (1971).

The first category is relatively straightforward. It seems logical to extend this treatment to consultants and others who are not “employees” in the strict sense. Cf. *McElmurry v. Arkansas Power & Light Co.*, 27 U.S.P.Q.2d 1129, 1135 n.15 (Fed. Cir. 1993) (upholding shop right in employer where inventor/patentee was a consultant); Robert P. Merges, *Intellectual Property and the Costs of Commercial Exchange: A Review Essay*, 93 MICH. L. REV. 1570 (1995) (highlighting the role of intellectual property in structuring non-employment-based organizations, such as consulting companies and joint ventures). Category (2) reflects situations where employers have less than a complete claim to the invention, but where the employer’s facilities or resources are combined with the inventor’s talent and industry to produce the invention. The employee owns it, but the employer is compensated by receiving a limited right to practice the invention. Notably, however, that right to practice does not include the right to sell the invention to others. *Beriont v. GTE Labs., Inc.*, 535 F. App’x 919 (Fed. Cir. 2013). Category (3) covers cases where the employee invents on his or her own time, outside the field of employment. See *Dubilier*, *supra*.

An employee’s obligation to refrain from using an employer’s trade secrets looks more onerous when it is the employee herself who came up with the secret. In *Wexler v. Greenberg*, 160 A.2d 430 (Pa. 1960), the Pennsylvania Supreme Court went out of its way to conclude that a departing employee was entitled to take formulas he had himself developed at his prior employer to work for a competitor. Despite the fact that the employee, Greenberg, was the chief chemist at the plaintiff, the court concluded that he was not in fact “hired to invent” and therefore owned the inventions he made.

The *Wexler* result, while it may seem fair, is not the majority rule. Even in Pennsylvania, *Wexler* is not always followed. See *Healthcare Affiliated Services v. Lippancy*, 701 F. Supp. 1142, 1155 (W.D. Pa. 1988) (rejecting *Wexler* analysis, emphasizing that although defendant developed inventions on his own, he did so using knowledge and information made available by the plaintiff employer). But see *Fidelity Fund v. DiSanto*, 500 A.2d 431 (Sup. Ct. Pa. 1985) (denying recovery against ex-employee salesman partly on the basis that he developed client contacts himself during employment).

Does the *Wexler* court confuse an employee’s *general* knowledge and skills with specific inventions developed by the employee while at work *based* on that knowledge and skills? If an employee’s job involves two tasks, working on established products (covered by trade secrets) and developing new ones, what effect will the *Wexler* rule have on the employee’s allocation of time between these tasks?

ii. Contracts That Restrict the Use of Trade Secrets

Wexler is explicitly based on the absence of a written agreement between employer and employee.¹⁰ Suppose that Greenberg had signed a contract when he was hired which stated that “all discoveries, inventions, or intellectual property rights stemming from employee’s work at Buckingham are the exclusive property of Buckingham.” Would such a contract be enforceable? Does it matter whether Greenberg’s “discoveries” were new formulas or ways to copy competitors’ formulas?

An example of the more common situation, in which the court finds either an express or implied agreement to assign an employee’s own inventions, is *Winston Research Corp. v. 3M Co.*, 350 F.2d 134 (9th Cir. 1965). There, the court dismissed an argument akin to Greenberg’s as follows:

Winston argues that information is protected from disclosure only if communicated to the employee by the employer who is seeking protection, and that the information involved in this case was not disclosed by [3M] to the employees subsequently hired by Winston, but rather was developed by these employees themselves, albeit while employed by [3M].

We need not examine the soundness of the rule for which Winston contends, or its applicability to a case such as this in which a group of specialists engaged in related facets of a single development project change their employer. . . . [A]n obligation not to disclose may arise from circumstances other than communication in confidence by the employer. It may also rest upon an express or implied agreement. In the present case, an agreement not to disclose might be implied from [3M]’s elaborate efforts to maintain the secrecy of its development program, and the employees’ knowledge of those efforts and participation in them. In any event, [3M] and its employees entered into express written agreements binding the latter not to disclose confidential information, and these agreements did not exclude information which the employee himself contributed.

Id. at 140.

Most companies require their employees to sign some sort of employment agreement, either when they are hired or at some point during their tenure. Employment agreements generally fall into one or more of three categories: confidentiality agreements, invention assignments, and noncompetition agreements. Confidentiality agreements, with which we are concerned here, generally recite that the employee

¹⁰ The absence of such an agreement can be significant even in situations in which it might be assumed that the “employer” had a reasonable claim to the employee’s invention. *Cf. Lariscey v. United States*, 20 U.S.P.Q.2d 1845 (Fed. Cir. 1991) (prison inmate owns rights to a secret process he developed while working in a prison shop).

will receive confidential information during her employment, and that she undertakes to keep it secret and not to use it for anyone other than the employer. Invention assignments give the employer the right to intellectual property created by the employee while she was employed. Noncompetition agreements limit the circumstances in which former employees can compete for customers with their former employers.

Presumably, employers may require their employees to agree not to use or disclose trade secrets to which they have access during employment. Virtually all employers do so. A variant on the departing employee who wishes to take her own inventions is the departing sales representative who wishes to “take” a list of customers (either a written list or one that they have memorized) in order to call on those customers for a competitor.¹¹ Customer lists are generally protectable as trade secrets, but enjoining employees from calling on customers with whom they have had long-standing relationships raises serious concerns about employee mobility. Two California cases frame the dispute. In *Moss, Adams & Co. v. Shilling*, 179 Cal. App. 3d 124 (1986), the court drew a line between an employee announcing her departure to start a competing company and actively soliciting old clients to follow her. The former was permissible, but the latter was not. This compromise was thrown into doubt by the decision in *Morlife Inc. v. Perry*, 66 Cal. Rptr. 2d 731 (Ct. App. 1997), where the court held that the passage of the Uniform Trade Secrets Act in California superseded *Moss, Adams* and that continuing personal relationships with former customers could constitute misappropriation of a trade secret. On the other hand, RESTATEMENT (THIRD) OF UNFAIR COMPETITION §41, Comment *d* states:

The reasonableness of an agreement that merely prohibits the use or disclosure of particular information depends primarily upon whether the information protected by the agreement qualifies as a trade secret. If the information qualifies for protection under the rule stated in §39, a contract prohibiting its use or disclosure is generally enforceable according to its terms. Although in some cases courts have enforced nondisclosure agreements directed at information found ineligible for protection as a trade secret, many of these decisions merely reflect a more narrow definition of trade secret than that adopted in §39. However, a nondisclosure agreement that encompasses information that is generally known or in which the promisee has no protectable interest, such as a former

¹¹ Merely memorizing a trade secret rather than taking physical documents will not preclude a finding of misappropriation, though it may make misappropriation harder to detect. See *Ed Nowogroski Ins. Inc. v. Rucker*, 971 P.2d 936 (Wash. 1999). In *Stampede Tool Warehouse Inc. v. May*, 651 N.E.2d 209 (Ill. Ct. App. 1995), for example, the plaintiff alleged that former employees who started a competing business had misappropriated its trade secrets by memorizing a list of plaintiff’s customers and soliciting those customers. The court found the defendants liable, reasoning that “memorization is one method of misappropriation.” But if the case involved merely a former employee contacting those she knew from experience to be potential customers, rather than explicitly attempting to memorize a list of customers, it would be hard to fault the employee’s conduct.

employee's promise not to use information that is part of the employee's general skill and training (*see* §42, Comment *d*), may be unenforceable as an unreasonable restraint of trade. Agreements that deny the promisor the right to use information that is in the public domain are ordinarily enforceable only if justified on the basis of interests other than the protection of confidential information.

Where should the line be drawn between permissible work and impermissible use of "secret" lists of customers? To whom does the value inherent in personal relationships belong?

A more difficult problem arises when employers attempt to limit an employee's use of information that does not constitute a trade secret under the legal standards described above. Can employers and employees "agree" that the employee will not use *any* information obtained during employment, whether it is public or not? This question parallels the problem of restrictive license provisions — are employers limited by the intellectual property laws to protecting only trade secrets that meet the statutory requirements, or are they free to impose additional restrictions on their employees so long as they do so by agreement? Courts struggle with this issue, with the majority concluding that "reasonable" contract restrictions on employees are enforceable even in the absence of a protectable trade secret. *See Bernier v. Merrill Air Engineers*, 770 A.2d 97 (Me. 2001); 12 ROGER MILGRIM, MILGRIM ON TRADE SECRETS §3.05[1][a], at 3-209 to 3-210. One state has even gone so far as to enact a statute that automatically assigns inventions to an employer provided they were developed in the course of employment and relate to the scope of the employee's work. Nev. Rev. Stat. §600.500.

On the other hand, in an attempt to alleviate the disparity in bargaining power between the employer and the inventor/employee, several states have adopted "freedom to create" statutes restricting the instances in which employers may compel assignment through contract. *See* Minn. Stat. Ann. §181.78 (1980); N.C. Gen. Stat. §66-57.1 to 57.2 (1981); Wash. Rev. Code Ann. §49.44.140 (1987); Cal. Labor Code §2870 (West 1987). These statutes provide that any employee invention assignment agreement that purports to give employers greater rights than they have under the statute is against public policy and unenforceable. The California statute is a good example. It provides that contracts may not require assignment of "invention[s] that the employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information" unless the invention relates to the employer's current or demonstrably anticipated business. Cal. Labor Code §2870.

Some commentators have argued that the United States is slipping in technological innovation because this country's inventors (the vast majority of whom are employed) have lost their incentive to create partially due to assignment agreements. Af-

ter labeling the state legislation described above as “a step forward,” one author writes: “Comprehensive federal legislation is necessary to provide employed inventors greater control over, and interests in, their inventions in order to create the psychological and financial incentives required to increase technological innovation in the United States. . . . Federal legislation would obviate the need for state reform and would bring uniformity that would solve the potential problem of inventors employed by multistate corporations.” Henrik D. Parker, *Reform for Rights of Employed Inventors*, 57 S. CAL. L. REV. 603 (1984). *See also* ORLY LOBEL, TALENT WANTS TO BE FREE (2014) (arguing for an open market for labor). *But see* Robert P. Merges, *The Law and Economics of Employee Inventions*, 13 HARV. J.L. & TECH. 1 (1999) (endorsing some contractual restrictions on employee mobility).

PROBLEM

Problem II-14. Helen, an employee of CarTech, is assigned to work on solving a particular problem in car design. She works for two years on that problem for CarTech, without success. Two months after Helen leaves CarTech to start her own company, she puts out a product that incorporates a solution to the same problem. CarTech sues Helen for misappropriation of trade secrets. At trial, CarTech proves that Helen came up with her system while at CarTech and that she decided to start her own company to exploit her invention rather than disclose it to CarTech. As a result, CarTech had no knowledge of the idea until Helen came out with her product. Should CarTech prevail in its trade secret suit, assuming that there was no employment or invention contract between the parties?

iii. Trailer Clauses

The common law rules just described apply in the absence of contracts, as stated; but they also have some relevance even when written agreements are in place. This is so because, under principles similar to those applied in the law of noncompetition agreements, the law limits the ability of employers to claim ownership by contract of all employee inventions no matter how tenuously related to the employment relationship. A case study in the limits of invention assignment agreements involves the “trailer clause,” a contractual provision that requires employees to assign their rights not only in inventions made during the period of employment but also for a certain time thereafter. Trailer clauses developed in response to a number of cases which held that, absent contractual provisions to the contrary, an employee’s ideas did not belong to the employer unless they were written down in tangible form (such as a patent disclosure statement) before the employee left work. *See Jamesbury Corp. v. Worcester Valve Co.*, 443 F.2d 205 (1st Cir. 1971).

Of course, even if an employer uses a trailer clause, there is always the risk that the former employee will simply wait out the duration of the term and then conven-

iently make the discovery upon the trailer clause's expiration. Such a strategy was attempted by an inventor in at least one case. Fortunately for the employer, the court did not believe the defendant inventor's story that the conception date for his flow meter was five days after the expiration of the six months specified in the trailer clause:

The perfection of a flow meter proved to be a painstakingly intricate process involving extensive testing. It is therefore difficult to believe that after a long and distinguished career with Plaintiff, Mr. Halmi in his musing five days after the trailer clause expired for the first time came up with the idea for the NTV. Although the word "Eureka!" has allegedly been uttered by more than one inventor over the years, the concept at issue does not lend itself to such sudden discovery. The court finds that the concept of the '434 patent must have existed in Mr. Halmi's mind before his employment with GSC ended. Mr. Halmi therefore violated his agreement with GSC.

General Signal Corp. v. Primary Flow Signal, Inc., 1987 U.S. Dist. LEXIS 6929, at *10 (D.R.I. Jul. 27, 1987).

Generally, trailer clauses are enforceable only to the extent that they are "reasonable." Although trailer clauses are generally enforceable, clauses of particularly long or indefinite duration may run afoul of the antitrust laws as well as being unenforceable. See *United Shoe Machinery Co. v. La Chapelle*, 212 Mass. 467, 99 N.E. 289 (1912). One court expressed the requirement of reasonableness as follows:

Hold-over clauses are simply a recognition of the fact of business life that employees sometimes carry with them to new employers inventions or ideas so related to work done for a former employer that in equity and good conscience the fruits of that work should belong to that former employer. In construing and applying hold-over clauses, the courts have held that they must be limited to *reasonable times* . . . and to *subject matter* which an employee worked on or had knowledge of during his employment. . . . Unless expressly agreed otherwise, an employer has no right under a holdover clause to inventions made outside the scope of the employee's former activities, and made on and with a subsequent employer's time and funds.

Dorr-Oliver, Inc. v. United States, 432 F.2d 447, 452 (Ct. Cl. 1970). Corporations may have trouble enforcing restrictions that are broader in scope. See *Applied Materials, Inc. v. Advanced Micro-Fabrication Equipment (Shanghai) Co.*, 630 F. Supp. 2d 1084 (N.D. Cal. 2009) (rejecting one-year trailer clause as an invalid noncompete agreement). This is particularly true of large conglomerates that attempt to require the assignment of any invention related to their (diverse) fields of business. See *Ingersoll-Rand Co. v. Ciavatta*, 110 N.J. 609, 542 A.2d 879, 896 n.6 (1988).

In addition to controlling inventions made shortly after departure, employers may be able to lay claim to ideas conceived while the defendant was employed, even if

those ideas aren't put into practice until years after the defendant leaves her job. *See Motorola Inc. v. Lemko Corp.*, 2012 WL 74319 (N.D. Ill. Jan. 10, 2012) (employment agreement that required assignment of "ideas" as well as "inventions" could cover an idea developed at a former employer that wasn't turned into a patent application until five years later).

2. Noncompetition Agreements

Employees inevitably learn a great deal about a business on the job. They may learn the trade secrets of their employer, but they may also learn such basic information as how many people it takes to make a product, who is likely to buy the product, where to advertise, etc. Further, employees develop personal relationships with vendors, customers, and others that are immensely useful in business. For this reason, many employers would like to prevent their employees from competing against them at all. Such employers often ask their employees to sign "noncompetition agreements," which prevent the employee from competing with his former employer for customers for a set period of time. Should such agreements be enforceable?

Edwards v. Arthur Andersen LLP
Supreme Court of California
81 Cal. Rptr. 3d 282 (Cal. 2008)

CHIN, J.

We granted review to address the validity of noncompetition agreements in California and the permissible scope of employment release agreements. We limited our review to the following issues: To what extent does Business and Professions Code section 16600 prohibit employee noncompetition agreements. . . .

We conclude that section 16600 prohibits employee noncompetition agreements unless the agreement falls within a statutory exception. . . . We therefore affirm in part and reverse in part the Court of Appeal judgment.

Facts

In January 1997, Raymond Edwards II (Edwards), a certified public accountant, was hired as a tax manager by the Los Angeles office of the accounting firm Arthur Andersen LLP (Andersen). Andersen's employment offer was made contingent upon Edwards's signing a noncompetition agreement, which prohibited him from working for or soliciting certain Andersen clients for limited periods following his termination. The agreement was required of all managers, and read in relevant part: "If you leave the Firm, for eighteen months after release or resignation, you agree not to perform professional services of the type you provided for any client on which you worked during the eighteen months prior to release or resignation. This does not prohibit you from accepting employment with a client. For twelve months after you leave the

Firm, you agree not to solicit (to perform professional services of the type you provided) any client of the office(s) to which you were assigned during the eighteen months preceding release or resignation. You agree not to solicit away from the Firm any of its professional personnel for eighteen months after release or resignation.” Edwards signed the agreement.

Between 1997 and 2002, Edwards continued to work for Andersen, moving into the firm’s private client services practice group, where he handled income, gift, and estate tax planning for individuals and entities with large incomes and net worth. Over this period he was promoted to senior manager and was on track to become a partner. In March 2002, the United States government indicted Andersen in connection with the investigation into Enron Corporation, and in June 2002, Andersen announced that it would cease its accounting practices in the United States. In April 2002, Andersen began selling off its practice groups to various entities. In May 2002, Andersen internally announced that HSBC USA, Inc. (a New York-based banking corporation), through a new subsidiary, Wealth and Tax Advisory Services (WTAS), would purchase a portion of Andersen’s tax practice, including Edwards’s group.

In July 2002, HSBC offered Edwards employment. Before hiring any of Andersen’s employees, HSBC required them to execute a “Termination of Non-compete Agreement” (TONC) in order to obtain employment with HSBC. Among other things, the TONC required employees to, *inter alia*, (1) voluntarily resign from Andersen; (2) release Andersen from “any and all” claims, including “claims that in any way arise from or out of, are based upon or relate to Employee’s employment by, association with or compensation from” defendant; (3) continue indefinitely to preserve confidential information and trade secrets except as otherwise required by a court or governmental agency; (4) refrain from disparaging Andersen or its related entities or partners; and (5) cooperate with Andersen in connection with any investigation of, or litigation against, Andersen. In exchange, Andersen would agree to accept Edwards’s resignation, agree to Edwards’s employment by HSBC, and release Edwards from the 1997 noncompetition agreement.

...

Edwards signed the HSBC offer letter, but he did not sign the TONC. In response, Andersen terminated Edwards’s employment and withheld severance benefits. HSBC withdrew its offer of employment to Edwards.

Procedural History

... In the published part of its opinion, the Court of Appeal held: (1) the noncompetition agreement was invalid under section 16600, and requiring Edwards to sign the TONC as consideration to be released from it was an independently wrongful act for purposes of the elements of Edwards’s claim for intentional interference with prospective economic advantage. ...

Discussion

A. Section 16600

Under the common law, as is still true in many states today, contractual restraints on the practice of a profession, business, or trade, were considered valid, as long as they were reasonably imposed. (*Bosley Medical Group v. Abramson* (1984) 161 Cal. App. 3d 284, 288, 207 Cal. Rptr. 477.) This was true even in California. (*Wright v. Ryder* (1868) 36 Cal. 342, 357 [relaxing original common law rule that all restraints on trade were invalid in recognition of increasing population and competition in trade].) However, in 1872 California settled public policy in favor of open competition, and rejected the common law “rule of reasonableness,” when the Legislature enacted the Civil Code. Today in California, covenants not to compete are void, subject to several exceptions discussed briefly below.

Section 16600 states: “Except as provided in this chapter, every contract by which anyone is restrained from engaging in a lawful profession, trade, or business of any kind is to that extent void.” The chapter excepts noncompetition agreements in the sale or dissolution of corporations (§16601), partnerships (*ibid.*; §16602), and limited liability corporations (§16602.5). In the years since its original enactment as Civil Code section 1673, our courts have consistently affirmed that section 16600 evinces a settled legislative policy in favor of open competition and employee mobility. (*See D’sa v. Playhut, Inc.* (2000) 85 Cal. App. 4th 927, 933, 102 Cal. Rptr. 2d 495.) The law protects Californians and ensures “that every citizen shall retain the right to pursue any lawful employment and enterprise of their choice.” (*Metro Traffic Control, Inc. v. Shadow Traffic Network* (1994) 22 Cal. App. 4th 853, 859, 27 Cal. Rptr. 2d 573.) It protects “the important legal right of persons to engage in businesses and occupations of their choosing.” (*Morlife, Inc. v. Perry* (1997) 56 Cal. App. 4th 1514, 1520, 66 Cal. Rptr. 2d 731.)

...

Under the statute’s plain meaning, therefore, an employer cannot by contract restrain a former employee from engaging in his or her profession, trade, or business unless the agreement falls within one of the exceptions to the rule. (§16600.) Andersen, however, asserts that we should interpret the term “restrain” under section 16600 to mean simply to “prohibit,” so that only contracts that totally prohibit an employee from engaging in his or her profession, trade, or business are illegal. It would then follow that a mere limitation on an employee’s ability to practice his or her vocation would be permissible under section 16600, as long as it is reasonably based.

Andersen contends that some California courts have held that section 16600 (and its predecessor statutes, Civil Code former sections 1673, 1674, and 1675) are the statutory embodiment of prior common law, and embrace the rule of reasonableness in evaluating competitive restraints. (*See, e.g., South Bay Radiology Medical Associates v. Asher* (1990) 220 Cal. App. 3d 1074, 1080, 269 Cal. Rptr. 15 (South Bay Ra-

dology) [§16600 embodies common law prohibition against restraints on trade]; *Vacco Industries, Inc. v. Van Den Berg* (1992) 5 Cal. App. 4th 34, 47-48, 6 Cal. Rptr. 2d 602 (*Vacco*) [§16600 is codification of common law reasonable restraint rule].) Andersen claims that these cases show that section 16600 “prohibits only broad agreements that prevent a person from engaging entirely in his chosen business, trade or profession. Agreements that do not have this broad effect — but merely regulate some aspect of post-employment conduct, e.g., to prevent raiding [employer’s personnel] — are not within the scope of [s]ection 16600.”

As Edwards observes, however, the cases Andersen cites to support a relaxation of the statutory rule simply recognize that the statutory exceptions to section 16600 reflect the same exceptions to the rule against noncompetition agreements that were implied in the common law. . . .

We conclude that Andersen’s noncompetition agreement was invalid. As the Court of Appeal observed, “The first challenged clause prohibited Edwards, for an 18-month period, from performing professional services of the type he had provided while at Andersen, for any client on whose account he had worked during 18 months prior to his termination. The second challenged clause prohibited Edwards, for a year after termination, from ‘soliciting,’ defined by the agreement as providing professional services to any client of Andersen’s Los Angeles office.” The agreement restricted Edwards from performing work for Andersen’s Los Angeles clients and therefore restricted his ability to practice his accounting profession. (*See Thompson v. Impaxx, Inc.* (2003) 113 Cal. App. 4th 1425, 1429, 7 Cal. Rptr. 3d 427 [distinguishing “trade route” and solicitation cases that protect trade secrets or confidential proprietary information].) The noncompetition agreement that Edwards was required to sign before commencing employment with Andersen was therefore invalid because it restrained his ability to practice his profession. (*See Muggill, supra*, 62 Cal. 2d at pp. 242-243, 42 Cal. Rptr. 107, 398 P.2d 147.)

B. Ninth Circuit’s Narrow-Restraint Exception

Andersen asks this court to adopt the limited or “narrow-restraint” exception to section 16600 that the Ninth Circuit discussed in *Campbell v. Trustees of Leland Stanford Jr. Univ.* (9th Cir. 1987) 817 F.2d 499 (*Campbell*), and that the trial court relied on in this case in order to uphold the noncompetition agreement. In *Campbell*, the Ninth Circuit acknowledged that California has rejected the common law “rule of reasonableness” with respect to restraints upon the ability to pursue a profession, but concluded that section 16600 “only makes illegal those restraints which preclude one from engaging in a lawful profession, trade, or business.” (*Campbell, supra*, 817 F.2d at p. 502.) The court remanded the case to the district court in order to allow the employee to prove that the noncompetition agreement at issue completely restrained him from practicing his “profession, trade, or business within the meaning of section 16600.” (*Campbell*, at p. 503.)

The confusion over the Ninth Circuit's application of section 16600 arose in a paragraph in *Campbell*, in which the court noted that some California courts have accepted application of section 16600 "where one is barred from pursuing only a small or limited part of the business, trade or profession." (*Campbell, supra*, 817 F.2d at p. 502.) . . .

Andersen is correct, however, that *Campbell* has been followed in some recent Ninth Circuit cases to create a narrow-restraint exception to section 16600 in federal court. For example, *International Business Machines Corp. v. Bajorek* (9th Cir. 1999) 191 F. . . .

Contrary to Andersen's belief, however, California courts have not embraced the Ninth Circuit's narrow-restraint exception. Indeed, no reported California state court decision has endorsed the Ninth Circuit's reasoning, and we are of the view that California courts "have been clear in their expression that section 16600 represents a strong public policy of the state which should not be diluted by judicial fiat." (*Scott v. Snelling and Snelling, Inc.* (N.D. Cal. 1990) 732 F. Supp. 1034, 1042.) Section 16600 is unambiguous, and if the Legislature intended the statute to apply only to restraints that were unreasonable or overbroad, it could have included language to that effect. We reject Andersen's contention that we should adopt a narrow-restraint exception to section 16600 and leave it to the Legislature, if it chooses, either to relax the statutory restrictions or adopt additional exceptions to the prohibition-against-restraint rule under section 16600. . . .

DISPOSITION

We hold that the noncompetition agreement here is invalid under section 16600, and we reject the narrow-restraint exception urged by Andersen. Noncompetition agreements are invalid under section 16600 in California even if narrowly drawn, unless they fall within the applicable statutory exceptions of sections 16601, 16602, or 16602.5. . . .

We therefore affirm in part and reverse in part the Court of Appeal judgment, and remand the matter for proceedings consistent with the views expressed above.

In *Comprehensive Technologies Int'l v. Software Artisans, Inc.*, 3 F.3d 730 (4th Cir. 1993), CTI brought suit for copyright infringement and misappropriation of trade secrets against a group of former employees who left the company to form a competing company which shortly thereafter came out with a new product. The court concluded that the departing employees had not infringed CTI's copyrights or misappropriated any CTI trade secrets. Nonetheless, the court enforced an agreement signed by one of the employees, Dean Hawkes. The agreement provided that for a period of twelve months after he left CTI, Hawkes would not

engage directly or indirectly in any business within the United States (financially as an investor or lender or as an employee, director, officer, partner, independent contractor, consultant or owner or in any other capacity calling for the rendition of personal services or acts of management, operation or control) which is in competition with the business of CTI. For purposes of this Agreement, the “business of CTI” shall be defined as the design, development, marketing, and sales of CLAIMS EXPRESS- and EDI LINK-type PC-based software with the same functionality and methodology. . . .

The court stated the general legal standard governing covenants not to compete:

Virginia has established a three-part test for assessing the reasonableness of restrictive employment covenants. Under the test, the court must ask the following questions:

1. Is the restraint, from the standpoint of the employer, reasonable in the sense that it is no greater than is necessary to protect the employer in some legitimate business interest?
2. From the standpoint of the employee, is the restraint reasonable in the sense that it is not unduly harsh and oppressive in curtailing his legitimate efforts to earn a livelihood?
3. Is the restraint reasonable from the standpoint of a sound public policy?

Blue Ridge Anesthesia & Critical Care, Inc. v. Gidick, 239 Va. 369, 389 S.E.2d 467, 469 (Va. 1990). If a covenant not to compete meets each of these standards of reasonableness, it must be enforced. As a general rule, however, the Virginia courts do not look favorably upon covenants not to compete, and will strictly construe them against the employer. The employer bears the burden of demonstrating that the restraint is reasonable.

The court found that Hawkes’s agreement, which prevented him from competing with CTI anywhere in the United States, was reasonable because CTI had offices, clients, or prospects in many (though not all) states throughout the country. Further, the court noted:

. . . As the individual primarily responsible for the design, development, marketing and sale of CTI’s software, Hawkes became intimately familiar with every aspect of CTI’s operation, and necessarily acquired information that he could use to compete with CTI in the marketplace. When an employee has access to confidential and trade secret information crucial to the success of the employer’s business, the employer has a strong interest in enforcing a covenant not to compete because other legal remedies often prove inadequate. It will often be difficult, if not impossible, to prove that a competing employee has misappropriated trade secret information belonging to his former employer. On the

facts of this case, we conclude that the scope of the employment restrictions is no broader than necessary to protect CTI's legitimate business interests.

COMMENTS AND QUESTIONS

1. The California rule set out in §16600 is the minority rule. Most states apply an overarching requirement of "reasonableness" to covenants not to compete, as the Virginia court did in *CTI*. See Mich. Comp. Laws §445.774a (noncompetition agreements enforceable if the agreement is "reasonable as to its duration, geographical area, and type of employment or line of business"). They may disagree, however, on what restrictions are reasonable. In *Gateway 2000 Inc. v. Kelley*, 9 F. Supp. 2d 790 (E.D. Mich. 1998), the court invalidated an agreement that was similar to the one upheld in *CTI*. The court relied in part on the fact that the company had later adopted a less restrictive noncompetition provision, suggesting that the older, broader provision was not necessary to protect its interests. And the Virginia Supreme Court has held unreasonable a noncompetition agreement that prevented the defendant from working for a competitor in any capacity, rather than specifying particular positions the defendant could not take. *Modern Environments, Inc. v. Stinnett*, 561 S.E.2d 694 (Va. 2002).

Some courts have limited the enforcement of noncompetition agreements to situations where trade secrets are likely to be used or disclosed if an employee is allowed to compete. The New York Court of Appeals, for example, took the following view:

Undoubtedly judicial disfavor of these covenants is provoked by "powerful considerations of public policy which militate against sanctioning the loss of a man's livelihood" (*Purchasing Assoc. v. Weitz*. . . .) Indeed, our economy is premised on the competition engendered by the uninhibited flow of services, talent and ideas. Therefore, no restrictions should fetter an employee's right to apply to his own best advantage the skills and knowledge acquired by the overall experience of his previous employment. This includes those techniques which are but "skillful variations of general processes known to the particular trade" (RESTATEMENT, AGENCY 2d, §396 Comment *b*).

Of course, the courts must also recognize the legitimate interest an employer has in safeguarding that which has made his business successful and to protect himself against deliberate surreptitious commercial piracy. Thus restrictive covenants will be enforceable to the extent necessary to prevent the disclosure or use of trade secrets or confidential customer information. In addition injunctive relief may be available where an employee's services are unique or extraordinary and the covenant is reasonable. This latter principle has been interpreted to reach agreements between members of the learned professions.

Reed Roberts Assocs. v. Strauman, 40 N.Y.2d 303, 353 N.E.2d 590 (Ct. App. 1976). Does the *Reed Roberts* approach in essence hold noncompetition agreements unen-

forceable, since it allows them to operate only when trade secret laws also provide relief? Are there sound reasons to enforce an employer-employee agreement that prevents the employee from competing after termination? State statutes which address the issue have generally been interpreted to allow such “reasonable” employee agreements, regardless of how the statutes themselves are worded. Of course, what agreements are “reasonable” is far from clear in this context, and is the subject of considerable litigation. Many states have invalidated noncompetition agreements on the ground that they were unreasonable. *See, e.g., Mutual Service Casualty Ins. Co. v. Brass*, 625 N.W.2d 648 (Wis. Ct. App. 2001); *Brentlinger Enters. v. Curran*, 752 N.E.2d 994 (Ohio Ct. App. 2001); *Harvey Barnett, Inc. v. Shidler*, 143 F. Supp. 2d 1247 (D. Colo. 2001); *Mertz v. Pharmacists Mutual Ins.*, 625 N.W.2d 197 (Neb. 2001); *City Slickers, Inc. v. Douglas*, 40 S.W.3d 805 (Ark. Ct. App. 2001).

If a noncompetition agreement is overbroad, should the courts refuse to enforce it at all, or should they narrow it to make it enforceable? *See Coleman v. Retina Consultants*, 687 S.E.2d 457 (Ga. 2009) (refusing to reform unenforceable agreement).

2. There seems to be no question in the CTI court’s mind that none of the defendants misappropriated any CTI trade secrets, infringed any copyrights, or otherwise “took” anything belonging to CTI in starting Software Artisans. Why doesn’t that dispose of the case? What social purpose is served by enjoining former employees from pursuing their livelihood? Shouldn’t the mobility and liberty of individuals be the paramount consideration, as California courts have suggested?

3. Despite the absolute nature of the California statute, California courts have interpreted this statute to bar noncompetition agreements altogether in employee contracts but to permit such agreements if they are ancillary to the sale of a business, so long as the terms of the agreement are “reasonable.” *See Monogram Indus., Inc. v. SAR Indus., Inc.*, 64 Cal. App. 3d 692, 134 Cal. Rptr. 714, 718 (1976).¹² Further, while California courts will not enforce a noncompetition agreement, they will prevent departing employees from using or disclosing their former employer’s trade secrets. *See State Farm Mutual Automobile Ins. Co. v. Dempster*, 344 P.2d 821 (Cal. Ct. App. 1959); *Gordon v. Landau*, 49 Cal. 2d 690, 321 P.2d 456 (Cal. 1958). Other states, including Alabama, Florida, Louisiana, Montana, and North Dakota, also forbid noncompetition agreements. Still other states, including Colorado, Delaware, Massachusetts, and Tennessee, forbid them in professional settings but allow them in other contexts. *See, e.g., Murfreesboro Med. Clinic v. Udom*, 166 S.W.3d 674 (Tenn. 2005). *But see Central Indiana Podiatry PC v. Krueger*, 882 N.E.2d 723 (Ind. 2008) (noncompete agreement enforceable against physician if reasonable).

¹² On the other hand, one court refused to enforce an agreement settling an employment discrimination lawsuit because it included a provision that the plaintiff would not be rehired by the defendant or any of its successors. The court worried that that agreement ran afoul of section 16600. *Golden v. Cal. Emergency Physicians Med. Grp.*, 782 F.3d 1083 (9th Cir. 2015).

4. The strength of California's commitment to the free movement of employees was demonstrated in *The Application Group, Inc. v. The Hunter Group, Inc.*, 72 Cal. Rptr. 2d 73 (Ct. App. 1998). There, the California Court of Appeals held that §16600 precluded the enforcement of a noncompetition agreement entered into in Maryland between a Maryland employer and employee, where the employee subsequently left to take a job telecommuting from Maryland for a California company. Despite the fact that Maryland courts would enforce the agreement, the California court concluded that California's interests were "materially stronger" than Maryland's in this case. *See also D'Sa v. Playhut, Inc.*, 85 Cal. App. 4th 927, 102 Cal. Rptr. 2d 495 (2000) (disregarding choice of law provision in holding a noncompete agreement unenforceable).

California's strong public policy has led to conflicts with other states. The most notable example is *Advanced Bionics v. Medtronic*, 87 Cal. App. 4th 1235 (2001), in which both California and Minnesota courts asserted that their law should control, with the Minnesota court enjoining the departing employee and the California court enjoining the employer from proceeding with the suit. The California Supreme Court ultimately reversed, not because it didn't consider the policy of employee mobility important but because it thought the specter of conflicting judgments unseemly. *Advanced Bionics v. Medtronic*, 29 Cal. 4th 697, 128 Cal. Rptr. 2d 172 (2002). But doing so may simply subjugate California's policy to the law of any other state that would enforce a noncompete agreement, even if the employee doesn't work in that state. *See IBM Corp. v. Bajorek*, 191 F.3d 1033 (9th Cir. 1999) (applying New York law to enjoin competition against New York company by employee in California, and disregarding California policy to the contrary); *Amazon.com, Inc. v. Powers*, 2012 WL 6726538 (W.D. Wash. Dec. 27, 2012) (enforcing Washington choice of law clause in noncompete contract against employee who left Amazon.com to work for Google in California). For a contrary ruling giving nationwide effect to a refusal to enforce a noncompete agreement under Georgia law, *see Palmer & Cay v. Marsh & McLennan*, 404 F.3d 1297 (11th Cir. 2005).

Is there a reasoned way to resolve such conflicts in public policy? Or will the inevitable result be a "race to the courthouse"?

5. What are the competing policy interests at stake in noncompetition clauses? On the one hand, it seems unfair to employers to simply allow their employees to do whatever they want upon leaving. Particularly where the employees were in positions of importance, their knowledge of the employer's trade secrets may leave the former employer at a competitive disadvantage. In a competitive industry, preventing the disclosure of trade secrets is far preferable to suing for misappropriation after they have already been disclosed. A noncompetition agreement may be a reasonable way for an employer to prevent a problem — and a lawsuit — before it starts.

On the other hand, such restrictions seem onerous burdens to impose on employees. Imagine how you would feel as an attorney if you left a firm only to find that you were prevented from practicing law in the same field or geographic region for the next two years. (In this regard, it is significant that even *Reed Roberts* expressed the view that the “learned professions” were properly subject to noncompetition agreements.) In addition, it is not completely clear that such provisions benefit companies in the long run. Strauman, the defendant in *Reed Roberts*, came to Reed Roberts after having worked for a competitor for four years. He was hired in part because of his valuable experience in the industry. What if Strauman’s former employer had required him to sign an enforceable noncompete agreement? For scholarly criticism of enforcing noncompetes, see Charles Tait Graves, *Analyzing the Non-Competition Covenant as a Category of Intellectual Property Regulation*, 3 HASTINGS SCI. & TECH. L.J. 69 (2010).

Some scholars have suggested that there is a more practical economic motivation for precluding such noncompetition agreements. They argue that the relative success of California’s Silicon Valley compared to Boston’s Route 128 is directly attributable to the prevalence of noncompetition agreements in Route 128 companies, which prevented the free movement of employees and therefore discouraged start-up companies. See ORLY LOBEL, *TALENT WANTS TO BE FREE: WHY WE SHOULD LEARN TO LOVE LEAKS, RAIDS, AND FREE RIDING* (2015); Ronald J. Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete*, 74 N.Y.U. L. REV. 575 (1999); ANNALEE SAXENIAN, *REGIONAL ADVANTAGE: CULTURE AND COMPETITION IN SILICON VALLEY AND ROUTE 128* (1994).

6. When a firm requires an existing employee to sign an employment agreement containing a covenant not to compete, the employee is giving up something substantial. What is the employer giving up? Some cases have raised the issue of consideration (in the contract law sense) in such an agreement on the part of the employer; they generally conclude that there is consideration, on one theory or another. See, e.g., *Central Adjustment Bureau v. Ingram*, 678 S.W.2d 28 (Tenn. 1984) (consideration in the form of continuous employment over a long period of time); *Alex Sheshunoff Mgmt. Servs. v. Johnson*, 209 S.W.3d 644, 646 (Tex. 2006) (same; rejecting prior Texas case law); *Lake Land Emp. Grp. v. Columer*, 804 N.E.2d 27 (Ohio 2004) (consideration in the form of continuing to employ an at-will employee; three Justices dissented).

Why not require, out of fairness, that an employer who insists on such a covenant must pay the employee’s salary during the term of the noncompete provision? Several other nations follow this approach:

- *Germany*: The German Commercial Code requires that an employer compensate the employee for the complete duration of time that the covenant

is in effect up to a maximum duration of two years. See WENDI S. LAZAR & GARY R. SINISCALCO (EDS.), *RESTRICTIVE COVENANTS AND TRADE SECRETS IN EMPLOYMENT LAW: AN INTERNATIONAL SURVEY*, Vol. I, 17-5 (2010) (German Commercial Code §74(a)(1)). Compensation must be at least half of the employee's pay during the previous 12 months of employment.

- *China*: In 2008, China adopted a similar regime. See PRC Labor Contract Law of 1 January 2008, Articles 23-24 (2008). Employers may include noncompete restrictions of no more than two years in employment agreements with senior technicians, senior managers, and other employees who have access to trade secrets. Under the law, the employer must compensate the employee throughout the post-employment noncompete period, although the law does not specify the compensation level. It is unclear whether the compensation must be at the prior level or can be as low as minimum wage.
- *United Kingdom*: The UK employs a "garden leave" policy, under which the employee must provide the employer with a long notice period before changing employment. The employer is required to pay full salary and benefits during this period, but cannot force the employee to work. (The employee can stay at home and tend his or her garden.) The garden leave period must be reasonable under the circumstances of the employment.

Some U.S. companies have adopted such approaches on a voluntary basis. See *Marcam Corp. v. Orchard*, 885 F. Supp. 294 (D. Mass. 1995) (enforcing a contractual provision preventing Orchard from working for any competitor in the country for one year, provided that Marcam paid 110 percent of the salary offered by the competitor). See Sonya P. Passi, *Compensated Injunctions: A More Equitable Solution to the Problem of Inevitable Disclosure*, 27 BERKELEY TECH. L.J. 927 (2012) (suggesting such an approach). Is the employee likely to be satisfied by that approach? How employable will he be after sitting idle for two years?

7. Does the reasonableness of a noncompete agreement depend on the likelihood of trade secret misappropriation? In *Zodiac Records, Inc. v. Choice Env't'l Servs.*, 112 So.2d 587 (Fla. Ct. App. 2013), the court held that a three-year noncompete was unreasonable and violated due process where the plaintiff stipulated that it could not show that the defendant would use its trade secrets unless the agreement was enforced.

8. Can an employer avoid state laws restricting noncompetition agreements by requiring the employee to sign an agreement that does not forbid employment, but calls for the payment of a "liquidated damage" penalty if the employee goes to work for a competitor? Is such a monetary penalty effectively the same as enforcing a noncompete? What if the employer doesn't forbid employment, but conditions the grant of stock options on not going to work for a competitor? Note that it is common in high-tech industries to grant employees stock options that "vest" over a period of

years, giving the employee an incentive not to leave and abandon the unvested options.

3. The “Inevitable Disclosure” of Trade Secrets

Are there circumstances in which an employee’s use or disclosure of trade secrets is “inevitable”? Consider the following case:

PepsiCo, Inc. v. Redmond

United States Court of Appeals for the Seventh Circuit

54 F.3d 1262 (7th Cir. 1995)

Posner, J.:

“[The Seventh Circuit ordered the issuance of a preliminary injunction preventing Quaker Oats Co. from employing Redmond, a former general manager for PepsiCo North America. Redmond was general manager of PepsiCo’s California business unit for ten years until, in 1994, he accepted Quaker’s offer to become the chief operating officer of its Gatorade and Snapple Co. divisions. The court held that Redmond would inevitably be forced to use PepsiCo trade secrets for his new employer]

PepsiCo asserts that Redmond cannot help but rely on PCNA [PepsiCo North America] trade secrets as he helps plot Gatorade and Snapple’s new course, and that these secrets will enable Quaker to achieve a substantial advantage by knowing exactly how PCNA will price, distribute, and market its sports drinks and new age drinks and being able to respond strategically. This type of trade secret problem may arise less often, but it nevertheless falls within the realm of trade secret protection under the present circumstance.

Quaker and Redmond assert that they have not and do not intend to use whatever confidential information Redmond has by virtue of his former employment. They point out that Redmond has already signed an agreement with Quaker not to disclose any trade secrets or confidential information gleaned from his earlier employment. They also note with regard to distribution systems that even if Quaker wanted to steal information about PCNA’s distribution plans, they would be completely useless in attempting to integrate the Gatorade and Snapple beverage lines.

The defendants’ arguments fall somewhat short of the mark. Again, the danger of misappropriation in the present case is not that Quaker threatens to use PCNA’s secrets to create distribution systems or coopt PCNA’s advertising and marketing ideas. Rather, PepsiCo believes that Quaker, unfairly armed with knowledge of PCNA’s plans, will be able to anticipate its distribution, packaging, pricing, and marketing moves. Redmond and Quaker even concede that Redmond might be faced with a decision that could be influenced by certain confidential information that he obtained while at PepsiCo. In other words, PepsiCo finds itself in the position of a coach, one

of whose players has left, playbook in hand, to join the opposing team before the big game. Quaker and Redmond's protestations that their distribution systems and plans are entirely different from PCNA's are thus not really responsive. . . .

Quaker and Redmond do not assert that the confidentiality agreement is invalid; such agreements are enforceable when supported by adequate consideration.¹⁰ Rather, they argue that "inevitable" breaches of these contracts may not be enjoined. The case on which they rely, however, *R. R. Donnelley & Sons Co. v. Fagan*, 767 F. Supp. 1259 (S.D.N.Y. 1991) (applying Illinois law), says nothing of the sort. The *R. R. Donnelley* court merely found that the plaintiffs had failed to prove the existence of any confidential information or any indication that the defendant would ever use it. *Id.* at 1267. The threat of misappropriation that drives our holding with regard to trade secrets dictates the same result here.

. . . In *Teradyne* [v. Clear Communications Corp., 707 F. Supp. 353 (N.D. Ill. 1989)], *Teradyne* alleged that a competitor, Clear Communications, had lured employees away from *Teradyne* and intended to employ them in the same field. In an insightful opinion, Judge Zagel observed that "threatened misappropriation can be enjoined under Illinois law" where there is a "high degree of probability of inevitable and immediate . . . use of . . . trade secrets." *Teradyne*, 707 F. Supp. at 356. Judge Zagel held, however, that *Teradyne's* complaint failed to state a claim because *Teradyne* did not allege "that defendants have in fact threatened to use *Teradyne's* secrets or that they will inevitably do so." [The *Teradyne* court held]:

the defendants' claimed acts, working for *Teradyne*, knowing its business, leaving its business, hiring employees from *Teradyne* and entering the same field (though in a market not yet serviced by *Teradyne*) do not state a claim of threatened misappropriation. All that is alleged, at bottom, is that defendants could misuse plaintiff's secrets, and plaintiffs fear they will. This is not enough. It may be that little more is needed, but falling a little short is still falling short.

Id. at 357.

In *AMP* we affirmed the denial of a preliminary injunction on the grounds that the plaintiff *AMP* had failed to show either the existence of any trade secrets or the likelihood that defendant *Fleischhacker*, a former *AMP* employee, would compromise those secrets or any other confidential business information. *AMP*, which produced electrical and electronic connection devices, argued that *Fleischhacker's* new position at *AMP's* competitor would inevitably lead him to compromise *AMP's* trade secrets regarding the manufacture of connectors. *AMP*, 823 F.2d at 1207. In rejecting that

¹⁰ The confidentiality agreement is also not invalid for want of a time limitation. See 765 ILCS 1065/8(b)(1) ("[A] contractual or other duty to maintain secrecy or limit use of a trade secret shall not be deemed to be void or unenforceable solely for lack of durational or geographic limitation on the duty."). Nor is there any question that the confidentiality agreement covers much of the information PepsiCo fears Redmond will necessarily use in his new employment with Quaker.

argument, we emphasized that the mere fact that a person assumed a similar position at a competitor does not, without more, make it “inevitable that he will use or disclose . . . trade secret information” so as to “demonstrate irreparable injury.” *Id.*

The ITSA, *Teradyne*, and *AMP* lead to the same conclusion: a plaintiff may prove a claim of trade secret misappropriation by demonstrating that defendant’s new employment will inevitably lead him to rely on the plaintiff’s trade secrets. *See also* 1 Jager, . . . §7.02[2][a] at 7-20 (noting claims where “the allegation is based on the fact that the disclosure of trade secrets in the new employment is inevitable, whether or not the former employee acts consciously or unconsciously”). . . .

PepsiCo presented substantial evidence at the preliminary injunction hearing that Redmond possessed extensive and intimate knowledge about PCNA’s strategic goals for 1995 in sports drinks and new age drinks. The district court concluded on the basis of that presentation that unless Redmond possessed an uncanny ability to compartmentalize information, he would necessarily be making decisions about Gatorade and Snapple by relying on his knowledge of PCNA trade secrets. It is not the “general skills and knowledge acquired during his tenure with” PepsiCo that PepsiCo seeks to keep from falling into Quaker’s hands, but rather “the particularized plans or processes developed by [PCNA] and disclosed to him while the employer-employee relationship existed, which are unknown to others in the industry and which give the employer an advantage over his competitors.” *AMP*, 823 F.2d at 1202. The *Teradyne* and *AMP* plaintiffs could do nothing more than assert that skilled employees were taking their skills elsewhere; PepsiCo has done much more.

COMMENTS AND QUESTIONS

1. What Pepsi trade secrets are threatened by Redmond’s “defection” to Quaker? The information Redmond possesses includes (1) new flavor and product packaging information; (2) pricing strategies; (3) Pepsi’s “attack plans” for specific markets; and (4) Pepsi’s new distribution plan, being pilot tested in California. What advantages would Quaker obtain by knowing this information? How long would it take Quaker to find out about each in the absence of inside knowledge from Redmond? If all these items would become readily apparent the moment Pepsi’s plans were implemented, does this circumstance suggest a limit on the appropriate remedy?

Assuming that Quaker will learn of Pepsi’s strategies from Redmond unless enjoined, how expensive would it be for Pepsi to develop a new marketing strategy? Could the new strategy take advantage of the fact that Quaker *thinks* it knows what Pepsi will do? How would this possibility affect Quaker’s use of the information?

2. Assume that the market for sports and new age drinks is increasingly concentrated in the hands of two companies, Pepsi and Quaker. Should this affect the outcome of the case? Given the court’s decision, what can one predict about future salary and benefits negotiations in this industry for employees like Redmond?

3. Is it fair to preclude former employees from doing any work for a competitor simply because they would be incapable of not using the information they obtained from their former employer? Note that the Seventh Circuit upheld an injunction against Redmond's employment for only six months. At the same time, the court issued a permanent injunction against the disclosure of Pepsi's trade secrets. Does this result make sense? If the theory of inevitable disclosure is that Redmond *must* use Pepsi's secrets in his employment, could he go to work for Quaker at the end of six months without violating the permanent injunction? Perhaps the court was implicitly seeking to balance Redmond's interests in employment mobility, reasoning that the business secrets would be less important after that time.

4. Is there any way that that employee can "keep separate" the ideas and projects he was working on for his old employer from the ideas and projects he will be asked to develop for his new employer? If not, should the employer be entitled to prevent the employee from competing even if it cannot show that the employee *intends* to use its trade secrets? Cf. *Al Minor & Assocs. v. Martin*, 881 N.E.2d 850 (Ohio 2008) (holding that the fact that a defendant had the plaintiff's secrets in his memory rather than on a disk or document did not preclude a finding of misappropriation).

IBM made just this argument when one of its disk drive specialists, Peter Bonyhard, left IBM to work for Seagate Technology in the same field. A preliminary injunction granted by the district court against Bonyhard's employment was reversed by the Eighth Circuit in an unpublished decision. *IBM v. Bonyhard*, 962 F.2d 12 (8th Cir. 1992). Several other decisions have also rejected inevitable disclosure as a basis for an injunction against employment. *Campbell Soup Co. v. Giles*, 47 F.3d 467 (1st Cir. 1995); *FMC Corp. v. Cyprus Foote Mineral Co.*, 899 F. Supp. 1477 (W.D.N.C. 1995). In *Campbell*, the court grounded its rejection of inevitable disclosure theory in the public policy that favors employee mobility. It quoted the district court opinion in the case, holding that public policy "counsels against unilateral conversion of non-disclosure agreements into non-competitive agreements. If Campbell wanted to protect itself against the competition of former employees, it should have done so by contract. This court will not afford such protection after the fact." See also *Carolina Chem. Equip. Co. v. Muckenfuss*, 471 S.E.2d 721 (S.C. Ct. App. 1996) (agreement entitled "Covenant Not to Divulge Trade Secrets" was actually an overly broad and unenforceable covenant not to compete, because the definition of trade secrets in the agreement was so broad that it effectively prevented any competition).

The judicial debate over the appropriateness of the inevitable disclosure doctrine has continued. Several cases have followed *PepsiCo* and enjoined employment absent either proof of trade secret misappropriation or an enforceable noncompetition agreement. See *Uncle B's Bakery v. O'Rourke*, 920 F. Supp. 1405 (N.D. Iowa 1996) (citing *PepsiCo* with approval and enjoining former plant manager at a bagel manufacturer from working for any competing business within a 500-mile radius); see also

Nat'l Starch & Chem. Corp. v. Parker Chem. Corp., 530 A.2d 31 (N.J. Super. Ct. App. Div. 1987). By contrast, one court has adopted what might be called a “partial inevitable disclosure” injunction. In *Merck & Co. v. Lyon*, 941 F. Supp. 1443 (M.D.N.C. 1996), the court enjoined a pharmaceutical marketing director from discussing his former employer’s products or pricing for a period of two years, but refused to enjoin him from competing employment altogether absent a “showing of bad faith.” Another court has accepted an inevitable disclosure theory, but issued an injunction limited to nine months, reasoning that the secrets likely to be disclosed would turn stale over time. *Novell Inc. v. Timpanogos Research Grp.*, 46 U.S.P.Q.2d 1197 (D. Utah 1998).

Other courts, particularly those in California, continue to reject inevitable disclosure altogether. See, e.g., *The Retirement Group v. Galante*, 176 Cal. App. 4th 1226, 1238 (2009); *Holton v. Physician Oncology Servs.*, 742 S.E.2d 702 (Ga. 2013); *GlobeSpan, Inc. v. O'Neill*, 151 F. Supp. 2d 1229 (C.D. Cal. 2001); *Danjaq, LLC v. Sony Corp.*, 50 U.S.P.Q.2d 1638 (C.D. Cal. 1999), *aff'd on other grounds*, 263 F.3d 942 (9th Cir. 2001); *Bayer Corp. v. Roche Molecular Sys.*, 72 F. Supp. 2d 1111, 1120 (N.D. Cal. 1999); *Cardinal Health Staffing Network v. Bowen*, 106 S.W.3d 452 (Tex. App. 2004); *Del Monte Fresh Produce Co. v. Dole Food Co.*, 148 F. Supp. 2d 1326, 1337-39 (S.D. Fla. 2001); *LeJeune v. Coin Acceptors*, 849 A.2d 451 (Md. 2004); *Whyte v. Schlage Lock Co.*, 101 Cal. App. 4th 1443, 125 Cal. Rptr. 2d 277 (Ct. App. 2002).

The federal Defend Trade Secrets Act, enacted in 2016, acknowledges the conflicts but declines to adopt an inevitable disclosure rule that would override the public policy of California and other states. See S. REP., NO. 114-220, 114TH CONG., 2D SESS., DEFEND TRADE SECRETS ACT OF 2016 12 n.12 (2016). To avoid doing so, the DTSA requires that proof of threatened future misappropriation be based on evidence of conduct and intent and not simply inferred from the employee’s position or knowledge. 18 U.S.C. §1836(b)(3)(A)(i). That section provides a court may:

(A) grant an injunction

(i) to prevent any actual or threatened misappropriation described in paragraph (1) on such terms as the court deems reasonable, provided the order does not

(I) prevent a person from entering into an employment relationship, and that the conditions placed on such employment shall be based on evidence of threatened misappropriation and not merely on the information the person knows; or

(II) otherwise conflict with an applicable State law prohibiting restraints on the practice of a lawful profession, trade, or business.

The SENATE REPORT notes that “[t]hese limitations on injunctive relief were included to protect employee mobility, as some have expressed concern that the injunctive relief authorized under the bill could override State-law limitations that safeguard employee mobility and thus could be a substantial departure from existing law in those states.” S. REP., S. 1890 at 12. The DTSA would, however, continue to permit state laws to prohibit inevitable disclosure.

5. How inevitable must the disclosure be? In *Bimbo Bakeries v. Botticella*, 613 F.3d 102 (3d Cir. 2010), the court affirmed an injunction preventing a senior executive of Bimbo Bakeries, the maker of Thomas’ English Muffins, from going to work for competitor Hostess. Botticella was one of only seven people at Bimbo who knew the formula for the muffins. Notably, the court did not find that it was “virtually impossible” for Botticella to do his job at Hostess without disclosing the formula. Instead, the court found it sufficient that there was a “substantial threat” of misappropriation. Does this result make sense? If the defendant denies any intent to deliver the secret to his new employer, what evidence should a court require before preventing him from going to work? Some courts seek to strike a middle ground, holding that where misappropriation is merely threatened rather than actual, the plaintiff must demonstrate “a high degree of probability of inevitable disclosure. . . . Mere knowledge of a trade secret is not enough, even where the person with such knowledge takes a comparable position with a competitor.” *Katch, LLC v. Sweetser*, 2015 WL 6942132 (D. Minn. Nov. 10, 2015).

4. Nonsolicitation Agreements

If the departing employees can avoid using the employer’s trade secrets when they leave, the question becomes a rather different one — is it acceptable to hire away a group of employees? In *Diodes, Inc. v. Franzen*, 260 Cal. App. 2d 244, 67 Cal. Rptr. 19 (1968), the president and vice-president of Diodes left to form a competing company, called Semtech. Before they left, the officers solicited a number of Diodes employees to join them. Diodes sued the departing employees, alleging a number of claims centering on unfair competition and breach of fiduciary duty. The court dismissed the complaint, stating:

As a general principle, one who unjustifiably interferes with an advantageous business relationship to another’s damage may be held liable therefor. The product is bottled under a variety of labels, including unfair competition, interference with advantageous relations, contract interference, and inducing breach of contract.

Even though the relationship between an employer and his employee is an advantageous one, no actionable wrong is committed by a competitor who solicits his competitor’s employees or who hires away one or more of his competitor’s employees who are not under contract, so long as the inducement to leave

is not accompanied by unlawful action. In the employee situation the courts are concerned not solely with the interests of the competing employers, but also with the employee's interest. The interests of the employee in his own mobility and betterment are deemed paramount to the competitive business interests of the employers, where neither the employee nor his new employer has committed any illegal act accompanying the employment change.

67 Cal. Rptr. at 25-26 (citations omitted). *See also Reeves v. Hanlon*, 33 Cal. 4th 1140 (2004) (a competitor who uses only lawful means to solicit at-will employees does not tortiously interfere with economic advantage).

Can employers change this result by forcing their employees to sign “nonsolicitation agreements” that prevent a departing employee from soliciting other employees to join him? What if such agreements also prohibit departing employees from soliciting their former customers? In a case that has been heavily criticized on other grounds, the Ninth Circuit has upheld (albeit without discussion) an injunction against solicitation of employees or customers based on such a nonsolicitation agreement. *See MAI Systems Corp. v. Peak Computing, Inc.*, 991 F.2d 511, 523 (9th Cir. 1993). Other courts and commentators take a more guarded approach, prohibiting solicitation of customers only where there is active inducement to breach an employment contract or where departing employees have taken a customer list which is itself a trade secret. *Cf. James H. A. Pooley, Restrictive Employee Covenants in California*, 4 SANTA CLARA COMPUTER & HIGH TECH. L.J. 251, 259 (1988).

If it is legal for an employee to change jobs, why should it be illegal for someone to invite them to do so? *See ORLY LOBEL, TALENT WANTS TO BE FREE* (2014) (arguing against the enforcement of nonsolicitation agreements). Are a group of employees departing together more likely to misappropriate trade secrets?

Should former employees be allowed to compete for the business of their old *customers*? Does your answer depend on whether the employees are using trade secrets in the solicitation? On whether the employee has signed a nonsolicitation agreement? Courts that have allowed agreements preventing the solicitation of customers have nonetheless made it clear that it is only affirmative solicitation of the customer that is forbidden; a departing employee is free to work for a former customer who approaches her. *Paramount Tax v. H&R Block*, 683 S.E.2d 141 (Ga. App. 2009).

Should the dominance of the employer in the industry matter? In *Wood v. Acordia of W. Va., Inc.*, 618 S.E.2d 415 (2005), the court upheld a two-year agreement preventing insurance agents from soliciting any of Acordia's current, former, or prospective customers. In dissent, Justice Starcher pointed out that Acordia was so dominant in the West Virginia insurance market that “every prospect in the market has been spoken for by an Acordia salesman.” The agreement at issue thus effectively prevents all competition.

PROBLEM

Problem II-15. You have been offered a position with a high-technology start-up company. They ask you to sign the following agreement. Do you sign it? Is it enforceable?

EMPLOYMENT, CONFIDENTIAL INFORMATION, AND INVENTION ASSIGNMENT AGREEMENT

As a condition of my employment with Science Company, its subsidiaries, affiliates, successors, or assigns (together the “Company”), and in consideration of my employment with the Company and my receipt of the compensation now and hereafter paid to me by the Company, I agree to the following:

1. Confidential Information

(a) *Company Information.* I agree at all times during the term of my employment and thereafter, to hold in strictest confidence, and not to use, except for the benefit of the Company, or to disclose to any person, firm, or corporation without written authorization of the Board of Directors of the Company, any Confidential Information of the Company. I understand that “**Confidential Information**” means any Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, customer lists and customers (including, but not limited to, customers of the Company on whom I called or with whom I became acquainted during the term of my employment), markets, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances, or other business information disclosed to me by the Company either directly or indirectly in writing, orally, or by drawings or observation of parts or equipment. I further understand that Confidential Information does not include any of the foregoing items which has become publicly known and made generally available through no wrongful act of mine or of others who were under confidentiality obligations as to the item or items involved.

(b) *Third Party Information.* I recognize that the Company has received and in the future will receive from third parties their confidential or proprietary information subject to a duty on the Company’s part to maintain the confidentiality of such information and to use it only for certain limited purposes. I agree to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm, or corporation or to use it except as necessary in carrying out my work for the Company consistent with the Company’s agreement with such third party.

2. Inventions

I agree that I will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, and hereby assign to the Com-

pany, or its designee, all my right, title, and interest in and to any and all inventions, original works of authorship, developments, concepts, improvements or trade secrets, whether or not patentable or registrable under copyright or similar laws, which I may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice (collectively referred to as “Inventions”), during the period of time I am in the employ of the Company and for three months thereafter, except as provided below. I further acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of and during the period of my employment with the Company and which are protectable by copyright are “works made for hire,” as that term is defined in the United States Copyright Act.

3. Conflicting Employment

I agree that, during the term of my employment with the Company and for a period of one year thereafter, I will not engage in any other employment, occupation, consulting, or other business activity in competition with or directly related to the business in which the Company is now involved or becomes involved during the term of my employment, nor will I engage in any other activities that conflict with my obligations to the Company.

4. Returning Company Documents

I agree that at the time of leaving the employ of the Company, I will deliver to the Company (and will not keep in my possession, recreate or deliver to anyone else) any and all devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, other documents or property, or reproductions of any aforementioned items developed by me pursuant to my employment with the Company or otherwise belonging to the Company, its successors or assigns.

5. Notification to New Employer

In the event that I leave the employ of the Company, I hereby grant consent to notification by the Company to my new employer about my rights and obligations under this Agreement.

6. Solicitation of Employees

I agree that for a period of twelve (12) months immediately following the termination of my relationship with the Company for any reason, whether with or without cause, I shall not either directly or indirectly solicit, induce, recruit or encourage any of the Company’s employees to leave their employment, or take away such employees, or attempt to solicit, induce, recruit, encourage, or take away employees of the Company, either for myself or for any other person or entity.

G. REMEDIES

As might be expected given the fluidity of doctrine in trade secret law, there are disparate remedies for trade secret misappropriation stemming from different remedial concerns. The Uniform Trade Secrets Act sets forth the following remedies for misappropriation:

Section 2

(a) Actual or threatened misappropriation may be enjoined. Upon application to the court, an injunction shall be terminated when the trade secret has ceased to exist, but the injunction may be continued for an additional reasonable period of time in order to eliminate commercial advantage that otherwise would be derived from the misappropriation.

(b) If the court determines that it would be unreasonable to prohibit future use, an injunction may condition future use upon payment of a reasonable royalty for no longer than the period of time the use could have been prohibited.

(c) In appropriate circumstances, affirmative acts to protect a trade secret may be compelled by court order.

Section 3

(a) In addition to or in lieu of injunctive relief, a complainant may recover damages for the actual loss caused by misappropriation. A complainant also may recover for the unjust enrichment caused by misappropriation that is not taken into account in computing damages for actual loss.

(b) If willful and malicious misappropriation exists, the court may award exemplary damages in an amount not exceeding twice any award made under subsection (a).

Section 4

If (i) a claim of misappropriation is made in bad faith, (ii) a motion to terminate an injunction is made or resisted in bad faith, or (iii) willful and malicious misappropriation exists, the court may award reasonable attorney's fees to the prevailing party.

What motivates this hodgepodge of remedial measures? As we shall see in the chapters to come, most intellectual property statutes operate on the basis of "property rules." That is, as in cases involving real property, the owner of the intellectual property right is entitled to judicial assistance in protecting the right from future interference. Normally, this assistance comes in the form of injunctive relief. By contrast, most tort and contract cases do not involve injunctive relief but rather damages designed to make the plaintiff "whole" in the sense of restoring her to the position she occupied before the tort, or to the position she expected to occupy if the contract had been performed.

Section 2 of the Uniform Trade Secrets Act seems to entitle trade secret plaintiffs to property-like protection, at least so long as their secret remains a secret. But §2(b) holds open the possibility that courts may refuse to grant such an injunction, settling instead for a reasonable “royalty” (presumably a court’s attempt to approximate what the parties might have agreed to pay in a licensing transaction). This provision casts some doubt on the “property entitlement” a trade secret owner might expect.

Similar doubt pervades the provisions on damages. Concepts like “reasonable royalty,” “lost profits,” and limited-time injunctions designed to “eliminate commercial advantage” all sound like restitutionary measures, aimed at making the plaintiff whole after a loss without necessarily punishing or deterring the defendant. But further provisions permit trade secret plaintiffs to recover for “unjust enrichment” on the part of defendants, and to recover treble damages and attorney fees in the case of willful misappropriation. And in some circumstances misappropriation of trade secrets can be a criminal offense, an idea that is certainly more consistent with a property entitlement rule than a tort or contract rule.

Generally, injunctions are available as a remedy in trade secret cases. Since injunctions offer only prospective relief, however, damages for preinjunction activities may also be collected. Since, unlike patents and copyrights, trade secrets have no definite term, the length of the injunction is often a difficult issue. The following case illustrates the use of one important measure of trade secret injunctions, the “head start” theory.

Winston Research Corp. v. 3M Corp.

United States Court of Appeals for the Ninth Circuit

350 F.2d 134 (9th Cir. 1965)

BROWNING, Circuit Judge:

For some uses of precision tape recorder/reproducers, the time interval between coded signals must be recorded and reproduced with great accuracy. To accomplish this, the tape must move at as constant a speed as possible during both recording and reproduction, and any changes in tape speed during recording must be duplicated as nearly as possible during reproduction. The degree to which a particular tape recorder/reproducer accomplishes, this result is measured by its “time-displacement error.”

An electronic device known as a “servo” system is commonly used to reduce time-displacement error by detecting fluctuations in tape speed and immediately adjusting the speed of the motor. Machines prior to the Mincom machine employed a flywheel to inhibit fluctuation in tape speed by increasing the inertia of the system. However, the flywheel reduced the effectiveness of the servo system since the increased inertia prevented rapid adjustments in the speed of the motor.

The effectiveness of the servo system in prior machines was also reduced by resonances created by the moving parts. The range of sensitivity of the servo system was limited to exclude the frequencies of the interfering resonances. This had the disadvantage of limiting the capacity of the servo system to respond to a full range of variations in the speed of the tape.

To solve these problems Mincom eliminated the flywheel and reduced the mass of all other rotating parts. This reduced the inertia of the tape transport system, permitting rapid adjustments in tape speed. Interfering resonances were eliminated by mechanical means. This permitted use of a servo system sensitive to a wide range of frequencies, and hence capable of rapid response to a wide range of variations in tape speed. After four years of research and development based upon this approach, Mincom produced a successful machine with an unusually low time-displacement error.

In May 1962, when Mincom had substantially completed the research phase of its program and was beginning the development of a production prototype, Johnson, who was in charge of Mincom's program, left Mincom's employment. He joined Tobias, who had previously been discharged as Mincom's sales manager, in forming Winston Research Corporation. In late 1962, Winston contracted with the government to develop a precision tape reproducer. Winston hired many of the technicians who had participated in the development of the Mincom machine to work on the design and development of the Winston machine.

In approximately fourteen months, Winston completed a machine having the same low time-displacement error as the Mincom machine.

Conflicting policy considerations come into play in deciding what limitations should be imposed upon an employee in the use and disclosure of information acquired in the course of a terminated employment relationship — or, conversely, what protection should be extended to the former employer against use and disclosure of such information.

On the one hand, restrictions upon the use and disclosure of such information limit the employee's employment opportunities, tie him to a particular employer, and weaken his bargaining power with that employer. Such restrictions interfere with the employee's movement to the job in which he may most effectively use his skills. They inhibit an employee from either setting up his own business or from adding his strength to a competitor of his employer, and thus they diminish potential competition. Such restrictions impede the dissemination of ideas and skills throughout industry. The burdens that they impose upon the employee and society increase in proportion to the significance of the employee's accomplishments, and the degree of his specialization.

On the other hand, restrictions upon an employee's disclosure of information that was developed as a result of the employer's initiative and investment, and which was entrusted to the employee in confidence, are necessary to the maintenance of decent

standards of morality in the business community. Unless protection is given against unauthorized disclosure of confidential business information by employees, employee-employer relationships will be demoralized; employers will be compelled to limit communication among employees with a consequent loss in efficiency; and business, espionage, deceit, and fraud among employers will be encouraged. . . .

. . . [S]tate law protecting trade secrets cannot be based “on a policy of rewarding or otherwise encouraging the development of secret processes or devices. The protection is merely against breach of faith and reprehensible means of learning another’s secret.” RESTATEMENT, TORTS §757, comment b.

The district court found, and Winston concedes, that Johnson and the other former Mincom employees based Winston’s development program upon the same approach to the problem of achieving a low time-displacement error as they had pursued in developing the Mincom machine. The district court further found that this general approach was not a trade secret of Mincom’s. Finally, the district court found that the particular embodiment of these general concepts in the Mincom machine was Mincom’s trade secret, and had been improperly utilized by the former Mincom employees in developing the Winston machine.

[The court affirmed the district court’s finding that Winston had misappropriated Mincom’s trade secrets.]

The district court enjoined Winston Research Corporation, Johnson, and Tobias from disclosing or using Mincom’s trade secrets in any manner for a period of two years from the date of judgment. The court also required the assignment of certain patent applications to Mincom. No damages were awarded. . . . Mincom argues that the injunction should have been permanent, or at least for a substantially longer period. Winston contends that no injunctive relief was appropriate.

Mincom was, of course, entitled to protection of its trade secrets for as long as they remained secret. The district court’s decision to limit the duration of injunctive relief was necessarily premised upon a determination that Mincom’s trade secrets would shortly be fully disclosed, through no fault of Winston, as a result of public announcements, demonstrations, and sales and deliveries of Mincom machines. Mincom has not seriously challenged this implicit finding, and we think the record fully supports it. . . .

We think the district court’s approach was sound. A permanent injunction would subvert the public’s interest in allowing technical employees to make full use of their knowledge and skill and in fostering research and development. On the other hand, denial of any injunction at all would leave the faithless employee unpunished where, as here, no damages were awarded; and he and his new employer would retain the benefit of a headstart over legitimate competitors who did not have access to the trade secrets until they were publicly disclosed. By enjoining use of the trade secrets for the approximate period it would require a legitimate Mincom competitor to develop a

successful machine after public disclosure of the secret information, the district court denied the employees any advantage from their faithlessness, placed Mincom in the position it would have occupied if the breach of confidence had not occurred prior to the public disclosure, and imposed the minimum restraint consistent with the realization of these objectives upon the utilization of the employees' skills. . . .

Winston also challenges the district court's determination that "knowledge of the reasons for" the particular specifications of the Mincom machine, and "knowledge of what not to do . . . and how not to make the same mistakes" as Mincom had made in arriving at these specifications, were Mincom trade secrets. [Although we agree with the district court's conclusion that such "negative know-how" is a trade secret, in the circumstances of this case we can see no way to prohibit Mincom's former employees from using such knowledge without prohibiting them from using their general knowledge and experience at the same time. In an appropriate case, this kind of knowledge can be protected by an injunction or even an award of damages, but this is not such a case.] . . .

Mincom argues that the district court should have awarded money damages as well as injunctive relief. We think the district court acted well within its discretion in declining to do so. Since Winston sold none of its machines, it had no profits to disgorge. The evidence as to possible future profits was at best highly speculative. To enjoin future sales and at the same time make an award based on future profits from the prohibited sales would result in duplicative and inconsistent relief, and the choice that the district court made between these mutually exclusive alternatives was not an unreasonable one. There was evidence that Winston would probably sell its machine and realize profits after the injunction expired, but these sales and profits, as we have seen, would not be tainted by breach of confidence, since Winston could by that time have developed its machine from publicly disclosed information. . . .

Finally, Mincom's employment contracts required its employees to assign to Mincom inventions conceived during employment, and inventions conceived within one year of termination of employment that were "based upon" confidential information. Mincom sought to require the assignment of one patent and a number of patent applications. The district court received evidence as to when each invention was conceived and its relationship to Mincom's secrets.

The district court found that three patent applications involved inventions conceived during the inventors' employment by Mincom, and ordered assignment on that basis. The court also found that a patent and some other patent applications involving inventions conceived after the employees left Mincom and went to Winston were not based on Mincom's confidential trade secrets. [The mere fact that they were conceived after the employees moved to Winston was not the reason for this finding — the reason was that these later inventions simply were not based on Mincom's confi-

dential information.] We think these findings have support in the record and are not clearly erroneous. [Judgment affirmed.]

COMMENTS AND QUESTIONS

1. Should injunctions issue as a matter of course in trade secret cases? The general rule in IP law does not make injunctions automatic, but applies a four-factor balancing test that asks whether the plaintiff will be irreparably injured absent an injunction, whether the grant or denial of an injunction would impose more hardship, and where the public interest lies. *See eBay, Inc. v. MercExchange LLC*, 547 U.S. 388 (2006). Because the public disclosure of a trade secret can destroy the secret altogether, courts and commentators have traditionally thought injunctions appropriate to prevent an injury that truly is irreparable. But in the wake of *eBay* some courts have denied injunctive relief. *See, e.g., Faiveley Transport Malmo AB v. Wabtec Corp.*, 559 F.3d 110 (2d Cir. 2009); *Am. Airlines, Inc. v. Imhof*, 620 F. Supp. 2d 574 (S.D.N.Y. 2009) (refusing to presume irreparable injury; plaintiff did not show that the defendant was likely to disclose the documents he took to his new employer).

Should there be a presumption that injunctive relief is appropriate? Such a presumption is typical of cases involving real property, but no such rule exists in most tort cases, and certainly not in typical contract cases. Are damages sufficient to protect trade secret owners? Perhaps not, since trade secrets are often hard to value, and misappropriation by one party can destroy the secret altogether. On the other hand, the parties could contract for injunctive relief, at least in employment cases, using noncompetition or confidentiality agreements. Should the law impose obligations the parties have not undertaken voluntarily? Should it refuse to enforce contract terms that the parties have agreed to? *See East v. Aqua Gaming Inc.*, 805 So. 2d 932 (Fla. Dist. Ct. App. 2001) (affirming injunction against use of trade secrets, but vacating injunction that prevented competition in the absence of an enforceable noncompete agreement).

One problem with such “automatic” injunctive relief is that it is difficult — and costly — to enforce. Is it an appropriate use of judicial resources to supervise employer-employee relationships on an ongoing basis? Is there a more cost-effective alternative to such supervision?

2. “Head-start injunctions” are available to plaintiffs who have published or otherwise disclosed their secret at some point after it was misappropriated. Suppose Anne possesses a secret that she is in the process of commercializing. Suppose further that it takes Anne two years after developing the secret to bring the product to market, at which point the secret is disclosed. If Benjamin steals Anne’s idea during the development process (say, at month 12), Benjamin will be able to get to market one year earlier than if he had waited until the information became public. In such a case, courts will issue a “head-start” injunction for a period of one year, putting Benjamin

in the same position he would have been in without the secret. *See, e.g., Verigy US Inc. v. Mayder*, 2008 WL 564634 (N.D. Cal. Feb. 29, 2008) (granting a five-month injunction to account for the lag time defendant would have faced in getting to market absent misappropriation).

Even if such an injunction is impossible (for example, because Benjamin has already entered the market), courts may allow him to continue using the former secret but require him to pay a “reasonable royalty” to Anne. The reasonable royalty is presumably set by the court, in an effort to approximate the royalty Anne might have charged Benjamin in a voluntary transaction.

Is a reasonable royalty a fair solution in such a situation? *See Mid-Michigan Comp. Sys. v. Marc Glassman Inc.*, 416 F.3d 505 (6th Cir. 2005) (basing damages for misappropriation of computer software on a reasonable royalty). At least one commentator has suggested that such a remedy “is peculiarly inappropriate to redress a situation where injunctive relief ought to be applied.” *See* 12 ROGER MILGRIM, MILGRIM ON TRADE SECRETS §1.01[2][a], at 1-36 n.20 (citing a district court decision concluding that limiting relief to a reasonable royalty invites misappropriation).

Is a reasonable royalty always appropriate, even if there is no evidence that the plaintiff lost money (or the defendant gained it) as a result of the misappropriation? In *Ajaxo Inc. v. E*Trade Fin. Corp.*, 115 Cal. Rptr. 3d 168 (Ct. App. 2010), the court held that it was error to refuse to award a reasonable royalty where the plaintiff could not prove damages or unjust enrichment. On the other hand, in *Bianco v. Globus Medical, Inc.*, 53 F. Supp. 3d 929 (E.D. Tex. 2014), the court treated a reasonable royalty as the normal remedy for use of a trade secret when the parties are not in competition, just as it is in patent cases. Notably, the *Bianco* court concluded that the royalty should be paid for fifteen years, well after the secret would have been discovered by independent means, reasoning that when the trade secret owner licensed ideas voluntarily it often signed contracts that required ongoing royalties.

3. Should the idea of “head start” injunctions apply to noncompete agreements as well as trade secret misappropriation? In *EMC Corp. v. Arturi*, 655 F.3d 75 (1st Cir. 2011), Justice Souter, sitting by designation, held that the plaintiff could not extend a noncompete agreement beyond its expiration date, even if the court had not enforced the agreement pending litigation by issuing a preliminary injunction.

If an employee agrees not to compete for a year, and it takes more than a year for the court to decide that agreement is enforceable, what is the plaintiff’s remedy? How would damages be calculated in such a case?

4. In *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 473 (1974), the former employees had signed confidentiality agreements. The Court upheld the district court’s granting of a permanent injunction against the disclosure or use by respondents of 20 of the 40 claimed trade secrets until such time as the trade secrets had been released to the public, had otherwise generally become available to the public, or had been ob-

tained by respondents from sources having the legal right to convey the information. *Id.* at 473-74. *See also Henry Hope X-Ray Prods., Inc. v. Marron Carrel, Inc.*, 674 F.2d 1336, 1342 (9th Cir. 1982) (the limitation on confidential information contains the implicit temporal limitation that information may be disclosed when it ceases to be confidential). *But see Howard Schultz & Assocs. v. Broniec*, 239 Ga. 181, 236 S.E.2d 265, 270 (1977) (“The nondisclosure covenant here contains no time limitation and hence it is unenforceable”); *Gary Van Zeeland Talent, Inc. v. Sandas*, 54 Wis. 2d 202, 267 N.W.2d 242, 250 (1978) (unlimited duration of agreement not to disclose trade secret customer list makes the agreement per se void).

The Eighth Circuit in *Sigma Chemical Co. v. Harris*, 794 F.2d 371, 375 (8th Cir. 1986) explained, in the course of rejecting a “temporally unlimited” injunction, the rationale for limiting injunctions in time:

[E]xtending the injunction beyond the time needed for independent development would give the employer “a windfall protection and would subvert the public interest in fostering competition and in allowing employees to make full use of their knowledge and ability.”

We believe the part of the injunction prohibiting disclosure of trade secrets must be limited in duration and, accordingly, reverse in part and remand the case to the district court for consideration of the time it would take a “legitimate competitor” to independently reproduce the information contained in the product and vendor files. On remand, the district court should also modify the language of the injunction to expressly state that Harris may use that information which is already in the public domain.

But see Halliburton Energy Servs., Inc. v. Axis Techs., LLC, 444 S.W.3d 251 (Tex. App. 2014) (ordering a perpetual injunction and opining that such perpetual injunctions were the norm). *Halliburton* represents a decidedly minority view among courts to consider the duration of injunctions. *See Richard F. Dole, Jr., Permanent Injunctive Relief for Trade Secret Misappropriation Without an Express Limit upon Its Duration: The Uniform Trade Secrets Act Reconsidered*, 17 B.U. J. SCI. & TECH. L. 173, 191-98 (2011) (collecting cases).

5. Who should be enjoined? Several courts have refused to hold the new employer liable for an employee’s malfeasance where they were unaware of it. *See Infinity Prods. v. Quandt*, 810 N.E.2d 1028 (Ind. 2004) (no respondeat superior liability for trade secret law); *BEA Sys. v. WebMethods, Inc.*, 595 S.E.2d 87 (Ga. Ct. App. 2004).

1. Criminal Trade Secret Statutes

Misappropriation of trade secrets is not only a tort; in some circumstances, it is a crime. *See generally* Eli Lederman, *Criminal Liability for Breach of Confidential Commercial Information*, 38 EMORY L.J. 921 (1989) (summarizing criminal laws

governing misappropriation of confidential information). A series of well-publicized criminal prosecutions of computer executives accused of taking trade secrets to their new employers have raised the consciousness of industry professionals about trade secrets. The prosecutions have also raised ethical and political questions about the propriety of trade secret prosecutions “engineered” by the real parties in interest, often major companies such as Intel or Borland.

Criminal trade secret cases differ from civil ones in several respects. The complaining party is the government, rather than the injured company. However, the injured companies are the “real parties in interest” and usually have some presence in the case. Even though they are not parties to the criminal proceeding, they at least supply a significant number of the witnesses and enjoy a high level of communication with the district attorney.

The burden of proof is higher than in a civil case. Some cases that could be won by the plaintiffs as civil cases will be lost in criminal court. This situation is even more likely because several states have definitions of trade secrets in their criminal laws that are more limited than their civil counterparts. For example, Cal. Penal Code §499c, which governs theft of trade secrets, historically limited the definition of a trade secret to “scientific or technical” information. (The constitutionality of this definition of trade secrets was upheld against a vagueness attack in *People v. Serrata*, 133 Cal. Rptr. 144 (Ct. App. 1976).) But in 1996, the California legislature amended its criminal trade secret statute to be coextensive with the broader definition of trade secrets in the Uniform Trade Secrets Act.

Defendants accused of stealing trade secrets may be charged with other offenses as well. For example, defendants who acquire a secret through improper means, as opposed to acquisition in a confidential relationship, may be guilty of larceny, receiving stolen property, or a host of similar crimes. See *People v. Gopal*, 217 Cal. Rptr. 487, 493-94 (Ct. App. 1985). Further, the growth of computer technology has expanded the federal role in prosecuting theft of trade secrets, since data taken over a computer network is considered to cross state lines. See *United States v. Riggs*, 739 F. Supp. 414 (N.D. Ill. 1990) (allowing indictment of computer hackers who published data from a Bell South computer text file for wire fraud and interstate transportation of stolen property).

The prosecution of a criminal (rather than civil) trade secret case has other effects on the parties involved. First, criminal trade secret courtrooms are the scene of constant battles over the publication of information. The real parties in interest will naturally oppose the disclosure in a public courtroom of the very secrets the defendant is accused of stealing. This concern runs headlong into the defendant’s constitutional

right to a public trial.¹³ Second, civil cases are generally stayed pending the outcome of a criminal prosecution. Thus, a criminal prosecution may actually delay injunctive relief — the kind of remedy a civil plaintiff is often most interested in.

COMMENTS AND QUESTIONS

1. Given the stay imposed on a parallel civil action and the higher burden of proof in a criminal case, why would a civil plaintiff ever seek a criminal prosecution?

2. Should theft of trade secrets be a criminal offense? Does the presence of criminal sanctions have any effect on the optimal level of deterrence provided in damages suits, and therefore on the damages that should be awarded in a civil suit?

Do you see any problems with California's inclusion of business information in the criminal trade secret statute? Are there reasons to treat theft of scientific information more harshly than theft of business information?

2. Federal Criminal Liability for Trade Secret Misappropriation

The Economic Espionage Act of 1996, 18 U.S.C. §1831 et seq., makes misappropriation of trade secrets a federal crime. Sections 1831(a) and 1832(a) contain identical language regarding acts of misappropriation, punishing a specified individual who:

- (1) steals, or without authorization appropriates, takes, carries away, or conceals, or by fraud, artifice or deception obtains a trade secret;
- (2) without authorization copies, duplicates, sketches, draws, photographs, downloads, uploads, alters, destroys, photocopies, replicates, transmits, delivers, sends, mails, communicates, or conveys a trade secret;
- (3) receives, buys, or possesses a trade secret, knowing the same to have been stolen or appropriated, obtained, or converted without authorization; . . .

These provisions are significantly broader in some respects than corresponding civil trade secret laws such as the Uniform Act.

In *United States v. Hsu*, 155 F.3d 189 (3d Cir. 1998), the first appellate decision interpreting the Act, the court concluded that the defendants (who were the subject of a sting operation) could be found guilty of conspiring and attempting to misappropri-

¹³ There is no such right in civil cases. To avoid the very real danger that a misappropriation action will result in disclosure of the very secrets the plaintiff seeks to protect, civil trade secret actions will almost invariably include protective orders limiting the disclosure of information produced in discovery. Such orders are usually agreed to by the parties but may sometimes be imposed by the court. They will sometimes go so far as to prevent the parties themselves (as opposed to the attorneys and hired experts) from reviewing the other side's documents. In such a case, should in-house counsel be given access to discovery documents? See *Brown Bag Software v. Symantec Corp.*, 960 F.2d 1465, 1470 (9th Cir. 1992).

ate information that was not in fact a trade secret, because the crime of attempt did not require proof that the information the defendants tried to steal was in fact a secret. This is an issue that has recurred in the cases. Consider *United States v. Lange*, 312 F.3d 263 (7th Cir. 2002):

§1832(a)(4) makes it a crime to attempt to sell trade secrets without the owner's permission. Even if Lange did not have real trade secrets in his possession, the argument goes, he *thought* he did and therefore may be penalized for an attempted sale. The argument finds support in *Hsu*, which held that in order to avoid graymail — the threat that to obtain a conviction the prosecutor must disclose the secret by putting it in the trial record — a case may be based on §1832(a)(4) without disclosing all details of the trade secret. *Accord, United States v. Pin Yen Yang*, 281 F.3d 534, 543-44 (6th Cir. 2002). We agree with the general approach of these decisions. *Hsu* analogized the attempted sale of information believed to be a trade secret to an attempt such as shooting a corpse, believing it to be alive, or selling sugar, believing it to be cocaine. Events of this sort underlie the maxim that factual impossibility is no defense to a prosecution for attempt. *See United States v. Bailey*, 227 F.3d 792, 797 (7th Cir. 2000); *United States v. Saunders*, 166 F.3d 907, 916 (7th Cir. 1999); *United States v. Cotts*, 14 F.3d 300, 307 (7th Cir. 1994). This does not mean, however, that the defendant's belief *alone* can support a conviction. All attempt prosecutions depend on demonstrating that the defendant took a substantial step toward completion of the offense, which could have been carried out unless thwarted. *Braxton v. United States*, 500 U.S. 344 (1991). Although the American Law Institute recommends a definition of attempt linked closely to intent, Model Penal Code §5.01(1)(c), the Supreme Court has not embraced this view and demands in cases under federal law that the prosecutor establish a probability of success. *See, e.g., Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447 (1993) ("dangerous probability" of success is an ingredient of attempted monopolization).

An attempted murder may be thwarted by substituting a sack of flour for the intended victim; a sale of drugs may be thwarted by substituting sugar for cocaine, or rock candy for crack. These situations present a good chance of success, but for the intervention. So does "the disgruntled former employee who walks out of his former company with a computer diskette full of engineering schematics" (*Hsu*, 155 F.3d at 201) — a fair description of Lange's conduct (though diskettes are obsolete). *See also United States v. Martin*, 228 F.3d 1, 10-12 (1st Cir. 2000). A sale of trade secrets may be thwarted by substituting a disk with the collected works of Shakespeare for the disk that the defendant believed contained the plans for brake assemblies, or by an inadvertent failure to download the proper file. The attempted sale of the disk is a culpable substantial step. But it is far less clear that sale of information already known to the

public could be deemed a substantial step toward the offense, just because the defendant is deluded and does not understand what a trade secret is. Selling a copy of *Zen and the Art of Motorcycle Maintenance* is not attempted economic espionage, even if the defendant thinks that the tips in the book are trade secrets; nor is sticking pins in voodoo dolls attempted murder. Booksellers and practitioners of the occult pose no social dangers, certainly none of the magnitude of those who are tricked into shooting bags of sand that have been substituted for targets of assassination. Lange was more dangerous than our bookseller but much less dangerous than our hypothetical assassin. Perhaps data purloined from an ex-employer is sufficiently *likely* to contain trade secrets to justify calling the preparation for sale a substantial step toward completion of the offense, and thus a culpable attempt, even if the employee stole the wrong data file and did not get his hands on the commercially valuable information. We need not pursue the subject beyond noting the plausibility of the claim and its sensitivity to the facts — what kind of data did the employee think he stole, and so on. For it is not necessary to announce a definitive rule about how dangerous the completed acts must be in trade secret cases: the judge was entitled to (and did) find that Lange had *real* trade secrets in his possession.

Lange wants us to proceed as if all he tried to sell were measurements that anyone could have taken with calipers after disassembling an original-equipment part. Such measurements could not be called trade secrets if, as Lange asserts, the assemblies in question were easy to take apart and measure. But no one would have paid \$100,000 for metes and bounds, while Lange told his customers that the data on offer were worth more than that asking price. Which they were. What Lange had, and tried to sell, were the completed specifications and engineering diagrams that reflected all the work completed *after* the measurements had been taken: the metallurgical data, details of the sintering, the results of the tests, the plans needed to produce the finished goods, everything required to get FAA certification of a part supposedly identical to one that had been approved. Those details “derive[d] independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, the public[.]” Every firm other than the original equipment manufacturer and RAPCO had to pay dearly to devise, test, and win approval of similar parts; the details unknown to the rivals, and not discoverable with tape measures, had considerable “independent economic value . . . from not being generally known.” A sensible trier of fact could determine that Lange tried to sell trade secrets.

Id. at 268-69.

Some commentators have criticized the EEA for defining misappropriation more broadly in criminal law than the UTSA does in civil law. Nonetheless, Congress, con-

cerned about cybersecurity and foreign hacking of websites, expanded the EEA to create a general federal civil trade secrets law. *See* DEFEND TRADE SECRETS ACT, S. 1890 (2016). While the DTSA generally tracks state law under the UTSA with respect to the definition of trade secrets and misappropriation, one important difference is in the area of remedies. The DTSA permits ex parte seizures of trade secret information and evidence of misappropriation where there was some risk that the secrets would be disclosed or the evidence destroyed before a court could enjoin it during normal legal processes. Those ex parte seizures are subject to a number of conditions and limitations, including proof not only that the plaintiff is likely to win the case and meet the requirements for an injunction but also that the normal process of a temporary restraining order is inadequate because the defendant will not comply with it and that the defendant would destroy or hide the evidence if she were given notice of the proposed seizure. *See* 18 U.S.C. §1836(b)(A)(ii). The SENATE REPORT indicates that “[t]he ex parte seizure provision is expected to be used in instances in which a defendant is seeking to flee the country or planning to disclose the trade secret to a third party immediately or is otherwise not amenable to the enforcement of the court’s orders.” S. REP. NO. 114-220, 114TH CONG., 2D SESS., DEFEND TRADE SECRETS ACT OF 2016 9-10 (2016).

H. FEDERAL PREEMPTION

The Supremacy Clause of the U.S. CONSTITUTION provides that

This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing [sic] in the Constitution or Laws of any State to the Contrary notwithstanding

U.S. CONSTITUTION, ART. VI, CL. 2. Thus, the Supremacy Clause nullifies state law attempts to duplicate or interfere with federal intellectual property protection. More difficult cases involve state laws that do not directly conflict with federal authority but instead address interstitial gaps within the federal regime. Courts must grapple with whether Congress intended to leave such gaps unfilled, thereby precluding state protection, or simply allowed state law to fill these voids. The following case addressed the interplay of federal patent law and state trade secret protection.

Kewanee Oil Co. v. Bicron Corp.
Supreme Court of the United States
416 U.S. 470 (1974)

Mr. Chief Justice BURGER delivered the opinion of the Court.

We granted certiorari to resolve a question on which there is a conflict in the courts of appeals: whether state trade secret protection is pre-empted by operation of the federal patent law. In the instant case the Court of Appeals for the Sixth Circuit held that there was preemption. The Courts of Appeals for the Second, Fourth, Fifth, and Ninth Circuits have reached the opposite conclusion. . . .

Petitioner brought this diversity action in United States District Court for the Northern District of Ohio seeking injunctive relief and damages for the misappropriation of trade secrets. The district Court, applying Ohio trade secret law, granted a permanent injunction against the disclosure or use by respondents of 20 of the 40 claimed trade secrets until such time as the trade secrets had been released to the public, had otherwise generally become available to the public, or had been obtained by respondents from sources having the legal right to convey the information.

The Court of Appeals for the Sixth Circuit held that the findings of fact by the District Court were not clearly erroneous, and that it was evident from the record that the individual respondents appropriated to the benefit of Bicron secret information on processes obtained while they were employees at Harshaw. Further, the Court of Appeals held that the District Court properly applied Ohio law relating to trade secrets. Nevertheless, the Court of Appeals reversed the District Court, finding Ohio's trade secret law to be in conflict with the patent laws of the United States. The Court of Appeals reasoned that Ohio could not grant monopoly protection to processes and manufacturing techniques that were appropriate subjects for consideration under 35 U.S.C. §101 for a federal patent but which had been in commercial use for over one year and so were no longer eligible for patent protection under 35 U.S.C. §102(b).

We hold that Ohio's law of trade secrets is not preempted by the patent laws of the United States, and accordingly, we reverse. . . .

III.

The first issue we deal with is whether the States are forbidden to act at all in the area of protection of the kinds of intellectual property which may make up the subject matter of trade secrets.

Article I, §8, cl. 8, of the Constitution grants to the Congress the power

[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries. . . .

In the 1972 Term, in *Goldstein v. California*, 412 U.S. 546 (1973), we held that the cl. 8 grant of power to Congress was not exclusive and that, at least in the case of writings, the States were not prohibited from encouraging and protecting the efforts of those within their borders by appropriate legislation. The States could, therefore, protect against the unauthorized rerecording for sale of performances fixed on records or tapes, even though those performances qualified as "writings" in the constitutional

sense and Congress was empowered to legislate regarding such performances and could pre-empt the area if it chose to do so. This determination was premised on the great diversity of interests in our Nation—the essentially nonuniform character of the appreciation of intellectual achievements in the various States. Evidence for this came from patents granted by the States in the 18th century. 412 U.S., at 557.

Just as the States may exercise regulatory power over writings so may the States regulate with respect to discoveries. States may hold diverse viewpoints in protecting intellectual property relating to invention as they do in protecting the intellectual property relating to the subject matter of copyright. The only limitation on the States is that in regulating the area of patents and copyrights they do not conflict with the operation of the laws in this area passed by Congress, and it is to that more difficult question we now turn.

IV.

The question of whether the trade secret law of Ohio is void under the Supremacy Clause involves a consideration of whether that law “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.” *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941). See *Florida Avocado Growers v. Paul*, 373 U.S. 132, 141 (1963). We stated in *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 229 (1964), that when state law touches upon the area of federal statutes enacted pursuant to constitutional authority, “it is ‘familiar doctrine’ that the federal policy ‘may not be set at naught, or its benefits denied’ by the state law. *Sola Elec. Co. v. Jefferson Elec. Co.*, 317 U.S. 173, 176 (1942). This is true, of course, even if the state law is enacted in the exercise of otherwise undoubted state power.” . . .

The stated objective of the Constitution in granting the power to Congress to legislate in the area of intellectual property is to “promote the Progress of Science and useful Arts.” The patent laws promote this progress by offering a right of exclusion for a limited period as an incentive to inventors to risk the often enormous costs in terms of time, research, and development. . . .

The maintenance of standards of commercial ethics and the encouragement of invention are the broadly stated policies behind trade secret law. “The necessity of good faith and honest, fair dealing, is the very life and spirit of the commercial world.” . . .

As we noted earlier, trade secret law protects items which would not be proper subjects for consideration for patent protection under 35 U.S.C. §101. As in the case of the recordings in *Goldstein v. California*, Congress, with respect to nonpatentable subject matter, “has drawn no balance; rather, it has left the area unattended, and no reason exists why the State should not be free to act.” *Goldstein v. California*, *supra*, at 570 (footnote omitted).

Since no patent is available for a discovery, however useful, novel, and nonobvious, unless it falls within one of the express categories of patentable subject matter of

35 U.S.C. §101, the holder of such a discovery would have no reason to apply for a patent whether trade secret protection existed or not. Abolition of trade secret protection would, therefore, not result in increased disclosure to the public of discoveries in the area of nonpatentable subject matter. . . .

Congress has spoken in the area of those discoveries which fall within one of the categories of patentable subject matter of 35 U.S.C. §101 and which are, therefore, of a nature that would be subject to consideration for a patent. Processes, machines, manufactures, compositions of matter, and improvements thereof, which meet the tests of utility, novelty, and nonobviousness are entitled to be patented, but those which do not, are not. The question remains whether those items which are proper subjects for consideration for a patent may also have available the alternative protection accorded by trade secret law.

Certainly the patent policy of encouraging invention is not disturbed by the existence of another form of incentive to invention. In this respect the two systems are not and never would be in conflict. Similarly, the policy that matter once in the public domain must remain in the public domain is not incompatible with the existence of trade secret protection. By definition a trade secret has not been placed in the public domain. . . .

. . . Trade secret law will encourage invention in areas where patent law does not reach, and will prompt the independent innovator to proceed with the discovery and exploitation of his invention. Competition is fostered and the public is not deprived of the use of valuable, if not quite patentable, invention. . . .

The final category of patentable subject matter to deal with is the clearly patentable invention, i.e., that invention which the owner believes to meet the standards of patentability. It is here that the federal interest in disclosure is at its peak. . . .

Trade secret law provides far weaker protection in many respects than the patent law. While trade secret law does not forbid the discovery of the trade secret by fair and honest means, e.g., independent creation or reverse engineering, patent law operates “against the world,” forbidding any use of the invention for whatever purpose for a significant length of time. The holder of a trade secret also takes a substantial risk that the secret will be passed on to his competitors, by theft or by breach of a confidential relationship, in a manner not easily susceptible of discovery or proof. *Painton & Co. v. Bourns, Inc.*, 442 F.2d, at 224. Where patent law acts as a barrier, trade secret law functions relatively as a sieve. The possibility that an inventor who believes his invention meets the standards of patentability will sit back, rely on trade secret law, and after one year of use forfeit any right to patent protection, 35 U.S.C. §102(b), is remote indeed.

Nor does society face much risk that scientific or technological progress will be impeded by the rare inventor with a patentable invention who chooses trade secret protection over patent protection. The ripeness-of-time concept of invention, devel-

oped from the study of the many independent multiple discoveries in history, predicts that if a particular individual had not made a particular discovery others would have, and in probably a relatively short period of time. If something is to be discovered at all very likely it will be discovered by more than one person. . . .

. . . Trade secret law and patent law have co-existed in this country for over one hundred years. Each has its particular role to play, and the operation of one does not take away from the need for the other. . . . Congress, by its silence over these many years, has seen the wisdom of allowing the States to enforce trade secret protection. Until Congress takes affirmative action to the contrary, States should be free to grant protection to trade secrets. . . .

Mr. Justice DOUGLAS, with whom Mr. Justice BRENNAN concurs, dissenting.

Today's decision is at war with the philosophy of *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, and *Compco Corp. v. Day-Brite Lighting, Inc.*, 376 U.S. 234. Those cases involved patents—one of a pole lamp and one of fluorescent lighting fixtures—each of which was declared invalid. The lower courts held, however, that though the patents were invalid the sale of identical or confusingly similar products to the products of the patentees violated state unfair competition laws. We held that when an article is unprotected by a patent, state law may not forbid others to copy it, because every article not covered by a valid patent is in the public domain. Congress in the patent laws decided that where no patent existed, free competition should prevail; that where a patent is rightfully issued, the right to exclude others should obtain for no longer than 17 years, and that the States may not “under some other law, such as that forbidding unfair competition, give protection of a kind that clashes with the objectives of the federal patent laws,” 376 U.S., at 231. . . .

The conflict with the patent laws is obvious. The decision of Congress to adopt a patent system was based on the idea that there will be much more innovation if discoveries are disclosed and patented than there will be when everyone works in secret. Society thus fosters a free exchange of technological information at the cost of a limited 17-year monopoly. . . .

A suit to redress theft of a trade secret is grounded in tort damages for breach of a contract—a historic remedy, *Cataphote Corp. v. Hudson*, 422 F.2d 1290. Damages for breach of a confidential relation are not pre-empted by this patent law, but an injunction against use is pre-empted because the patent law states the only monopoly over trade secrets that is enforceable by specific performance; and that monopoly exacts as a price full disclosure. A trade secret can be protected only by being kept secret. Damages for breach of a contract are one thing; an injunction barring disclosure does service for the protection accorded valid patents and is therefore pre-empted. . . .

COMMENTS AND QUESTIONS

1. The rule set forth by *Sears, Roebuck & Co v. Stiffel Co.*, 376 U.S. 225 (1964), was fairly clear: patent law reflects a compromise between the goal of promoting innovation and the danger of condoning monopoly. Supplementing the scope of patent law may upset that balance, and is therefore prohibited. Supplementing *enforcement* of the federal intellectual property laws was condoned in dictum at the end of *Compco Corp. v. Day-Brite Lighting, Inc.*, 376 U.S. 234 (1964), a companion case, and in Justice Harlan's concurrence in both cases. After these cases, state law served a very limited function in the scheme of intellectual property protection. States could work to further the goals of federal protection, but they had to work within the parameters set down by federal law. As a result, both *Sears* and *Compco* struck down state statutes providing design protection to unpatentable utilitarian articles.

The *Kewanee* opinion takes a remarkably different tack. Chief Justice Burger's opinion for the Court emphasizes only one of the two policies shaping the patent laws: the goal of promoting innovation. The opinion does not discuss the dangers intellectual property protection poses for free competition. As a result, the *Kewanee* Court finds no problem with trade secret protection that extends beyond the scope of the patent laws. Note that the Court seems to approve not only of state laws that protect nonpatentable subject matter (an area in which it could be argued that the federal government has no interest),¹⁴ but also the protection of inventions not patentable for some other reason (i.e., suppression, misuse, lack of novelty, or obviousness).

Is *Kewanee* reconcilable with *Sears*? The *Kewanee* court did not overrule *Sears* or *Compco*; indeed, it cited them in support of its holding. Thus state laws preventing copying were treated differently from trade secret laws after *Kewanee*. The latter, although broader in scope (they prevented far more than just outright copying of products), were permissible; the former were not. See Paul Goldstein, *Kewanee Oil Co. v. Bicon Corp.: Notes on a Closing Circle*, 1974 SUP. CT. REV. 81 (1974) (arguing that *Kewanee* "closed the circle" on the open-ended preemption analysis of *Sears* and *Compco*); Camilla A. Hrdy, *State Patents As a Solution to Underinvestment in Innovation*, 62 U. KAN. L. REV. 487 (2013) (arguing that state patents, which preceded the adoption of the Constitution in 1789, are still possible and in some cases desirable despite federal nature of patent law).

2. Is preemption a good idea? That depends on what you think of the balance the federal laws have struck. If you are more concerned about injury to competition by conferring monopoly rights on patentees, you are likely to favor the result in *Sears*. If, on the other hand, you think that innovation is underrewarded, it is reasonable to oppose federal preemption. One way to reconcile these cases may be to read *Sears* and

¹⁴ Even in this area, though, a federal interest may be discerned. If Congress has declared some subject matter unpatentable, that could reflect a federal determination that that matter is unworthy of protection, a determination that state law should not be allowed to upset.

Compro as expressing a federal policy in favor of reverse engineering of products in the public domain. If that is the overarching federal goal, it is logical to strike down the laws in *Sears* and *Compro* but not *Kewanee*, since trade secrets statutes (unlike the unfair competition laws we have discussed) generally allow reverse engineering. This result is also consistent with the reading of trade secret laws as merely an application of tort and contract principles.