Trade Secrets

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Trade Secret

Trade secret law protects against the theft of valuable business secrets. Doctrinally, trade secret law has deep common-law roots as a branch of "unfair competition" law. Over time it has become more statutory and more federal. The Uniform Trade Secrets Act has been adopted in some form by 47 states. The federal Economic Espionage Act criminalized an important subset of trade secret misappropriation, and the 2016 Defend Trade Secrets Act added a federal civil cause of action and an important seizure remedy.

Why protect trade secrets? At least four stories rub elbows in the cases and commentary.

- **Contracting**: protecting trade secrets helps resolve Arrow's Information Paradox by making it possible to contract securely for disclosing them.
- **Innovation**: keeping secrets safe gives companies incentives to invest in creating valuable information in the first place.
- **Arms Race**: unless trade secrets received legal protection, companies would inefficiently overinvest in self-help to protect them, and other companies would inefficiently overinvest in stealing them.
- **Competition**: trade secret law deters unethical business practices and encourages companies to compete with each other fairly.

The leading trade secret treatises are Roger M. Milgrim & Eric Bensen, *Milgrim on Trade Secrets* (Matthew Bender, on Lexis), Louis Altman & Malla Pollack, *Callmann on Unfair Competition, Trademarks, and Monopolies* (Thomson West, on Westlaw), and Melvin F. Jager, *Trade Secrets Law* (Thomson West, on Westlaw). The older Restatement (First) of Torts and the newer Restatement (Third) of Unfair Competition are regularly cited.

A Subject Matter

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.

§ 39
Definition of Trade Secret

cmt. e *Subject matter*. – A trade secret can consist of a formula, pattern, compilation of data, computer program, device, method, technique, process, or other form or embodiment of economically valuable information. A trade secret can relate to technical matters such as the composition or design of a product, a method of manufacture, or the know-how necessary to perform a particular operation or service. A trade secret can also relate to other aspects of business operations such as pricing and marketing techniques or the identity and requirements of customers.

The prior Restatement of this topic limited the subject matter of trade secret law to information capable of "continuous use in the operation of a business," thus excluding information relating to single events such as secret bids and impending business announcements or information whose secrecy is quickly destroyed by commercial exploitation. Both the case law and the prior Restatement, however, offered protection against the "improper" acquisition of such short-term information under rules virtually identical to those applicable to trade secrets. The definition of "trade secret" adopted in the Uniform Trade Secrets Act does not include any requirement relating to the duration of the information's economic value. The definition adopted in this Section similarly contains no requirement that the information afford a continuous or long-term advantage.

Uniform Trade Secrets Act

§ 1 *Definitions*

(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.

Not every secret is a *trade* secret. When one fifth-grader asks another to cross her heart and hope to die before revealing a bit of gossip about a mutual friend, this is not the kind of secret the courts will take an interest in. The economic value requirement performs this screening function.

In theory, economic value could be a *threshold* test: the courts could ask whether particular information is valuable enough for

trade secret law to protect. But in practice, the threshold of value is so low it rarely matters. "It is sufficient if the secret provides an advantage that is more than trivial." Instead, economic value expresses a *categorical* exclusion from trade secret subject matter. Personal – rather than professional – secrets are the wrong sort of thing for trade secret law.

Restatement (Third) of Unfair Competition § 39 cmt. e

Religious Technology Center v. Netcom On-Line Communications Services, Inc.

923 F. Supp. 1231 (N.D. Cal. 1995)

Plaintiffs, two Scientology-affiliated organizations claiming copyright and trade secret protection for the writings of the Church's founder, L. Ron Hubbard, brought this suit against defendant Dennis Erlich, a former Scientology minister turned vocal critic of the Church, who allegedly put plaintiffs' protected works onto the Internet.

I. Background

Defendant Dennis Erlich was a member of the Church of Scientology from approximately 1968 until 1982. During his years with the Church, Erlich received training to enable him to provide ministerial counseling services, known as "auditing." While with the Church, Erlich had access to various Scientology writings, including those of the Church's founder, L. Ron Hubbard, which the Church alleges include published literary works as well as unpublished confidential materials (the "Advanced Technology works"). According to plaintiffs, Erlich had agreed to maintain the confidentiality of the Advanced Technology works.

Since leaving the Church, Erlich has been a vocal critic of Scientology and he now considers it part of his calling to foster critical debate about Scientology through humorous and critical writings. Erlich has expressed his views about the Church by contributing to the Internet "Usenet news-group" called "alt.religion.scientology" ("the newsgroup''), which is an on-line forum for the discussion of issues related to Scientology.

Plaintiff Religious Technology Center ("RTC''), a nonprofit religious corporation, "was formed by Scientologists, with the approval of Hubbard, to act as the protector of the religion of Scientology and to own, protect, and control the utilization of the Advanced Technology in the United States."

RTC allege[s] that Erlich misappropriated its trade secrets in the works, the confidentiality of which it alleges has been the subject of elaborate security measures. RTC further claims that those works are extremely valuable to the Church. Erlich admits to having posted excerpts from some of the works, but argues that the quotations were

used to provide context for debate and as a basis for his criticism. Erlich further argues that he has neither claimed authorship of any of the works nor personally profited from his critique, satire, and commentary. Erlich contends that all of the documents he posted had been previously posted anonymously over the Internet, except for one, which he claims he received anonymously through the mail.

C. Likelihood of Success on Trade Secret Claim

Cal. Civ. Code § 3426.1 *et seq.*

In the third cause of action, plaintiff RTC alleges that Erlich misappropriated its trade secrets. California has adopted a version of the Uniform Trade Secret Act.

To establish its trade secret claim, RTC must show, inter alia, that the Advanced Technology works (1) have independent economic value to competitors and (2) have been kept confidential.

1. Nature of Works

Wollersheim: 796 F.2d 1076 (9th Cir. 1986)

As a preliminary matter, Erlich argues that the Advanced Technology works cannot be trade secrets because of their nature as religious scriptures. In *Religious Technology Center v. Wollersheim*, the Ninth Circuit rejected the Church's application for a preliminary injunction on the basis of a trade secret claim against a splinter Scientology group that had acquired stolen copies of the Advanced Technology. The Church argued not that the works gave them a competitive market advantage but that disclosure of the works would cause its adherents "religious harm from premature unsupervised exposure to the materials." Although the Ninth Circuit rejected plaintiffs' trade secret argument based on the spiritual value of the harm, it later noted that it had left open the question of whether the Advanced Technology works could qualify as trade secrets, assuming plaintiffs could prove that the secrets confer on them an actual economic advantage over competitors. Nonetheless, the court noted that such an allegation would "raise grave doubts about the Church's claim as a religion and a not-for-profit corporation."

The Church contends that the Advanced Technology works consist of "processes and the theory behind those processes that are to be used precisely as set forth by L. Ron Hubbard to assist the parishioner in achieving a greater spiritual awareness and freedom." Erlich responds that the works are essentially religious texts. Erlich argues that the Church cannot have trade secrets because trade secret law is necessarily related to commerce. The Church contends that, like other organizations, it must pay bills, and that licensing fees from these documents allow it to continue operating.

The Church's status as a religion does not itself preclude it from holding a trade secret. Restatement § 39 cmt. d ("[N]onprofit entities such as ... religious organizations can also claim trade secret protec-

tion for economically valuable information such as lists of prospective members or donors.''); UTSA § 3426.1(c) (defining "person" to include a "corporation ... or any other legal or commercial entity"). With the exception of *Bridge Publications, Inc. v. Vien* [(another Scientology case)], there is little authority to support a finding that religious materials can constitute trade secrets. However, there is "no category of information [that] is excluded from protection as a trade secret because of its inherent qualities." *Clark v. Bunker* (upholding as a trade secret a "detailed plan for the creation, promotion, financing, and sale of contracts for 'prepaid' or 'pre-need' funeral services").

Vien: 827 F. Supp. 629 (S.D. Cal. 1993)

Clark: 453 F.2d 1006 (9th Cir.1972)

Nor is there any authority to support Erlich's argument that the Church's religious texts cannot be trade secrets because, unlike most trade secrets, these secrets are not used in the production or sales of a commodity but *are the commodities themselves*. The Church's Advanced Technology "course" materials, which are an integral part of the Church's spiritual counseling techniques, do not appear fundamentally different from the course manuals upheld as trade secrets in *SmokEnders, Inc. v. Smoke No More, Inc.*:

SmokEnders: 184 U.S.P.Q. 309 (S.D. Fla. 1974)

> The SmokEnders ("SE'') program requires attendees to follow a rigid structured regimen comprised of specific assignments and detailed concepts as recited in the manual.
>
> The SE program is a step-by-step regimented program which requires that each person attending a SE program perform each act of the program at a particular time. Each act required by a SE seminar attendee must be performed by attendees at the same time in the program, with each a minimum departure from the program.
>
> The SE trade secret resides in the composite program as it is arranged for step-by-step delivery to the attendees.

SmokEnders is arguably distinguishable because only the "moderators" and not the attendees were given access to the course materials in that case. However, the adherents of the Church, unlike the attendees and like the moderators in SmokEnders, are under a duty of confidentiality as to the materials. This case is analogous to *SmokEnders* because in both cases the "commodity" that is produced from the trade secrets is the result achieved by the person using the course materials and their techniques (whether it be stopping smoking or reaching a "higher spiritual existence").

Thus, there is at least some precedent for granting trade secret status to works that are techniques for improving oneself (though not specifically spiritually). Conversely, there is no authority for excluding religious materials from trade secret protection because of their nature. Indeed, there is no authority for excluding any type of in-

formation because of its nature. While the trade secret laws did not necessarily develop to allow a religion to protect a monopoly in its religious practices, the laws have nonetheless expanded such that the Church's techniques, which clearly are "used in the operation of the enterprise," are deserving of protection if secret and valuable.

Restatement (Third) of Unfair Competition § 39

Although trade secret status may apply to works that are techniques for spiritually improving oneself, the secret aspect of those techniques must be defined with particularity. See Restatement (requiring plaintiff to define the information claimed as a trade secret with sufficient definiteness). It appears that plaintiffs are claiming that the entire works themselves, which they describe as "processes and the theory behind those processes," constitute the trade secrets. This definition is problematic because it is impossible to determine when the "secret" has been lost after portions of the works have been disclosed. Although plaintiffs' definition has at least some support in *SmokEnders*, where the court upheld as a trade secret a "composite stop-smoking program" found in an instructional manual, this court is not satisfied that plaintiffs have identified their trade secrets with sufficient definiteness to support injunctive relief.

§ 39 cmt. d

2. Independent Economic Value

A trade secret requires proof of independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use. A trade secret must have sufficient value in the owner's operation of its enterprise such that it provides an actual or potential advantage over others who do not possess the information.

RTC's president, Warren McShane, attests that

> The Advanced Technology is a source of substantial revenue for RTC in the form of licensing fees paid by Churches that are licensed to use the Advanced Technology. These Churches themselves receive a significant amount of their income from donations by parishioners for services based upon the Advanced Technology. These Churches pay RTC a percentage of the donations paid by parishioners for the services based upon the Advanced Technology. These donations and fees provide the majority of operating expenses of these various Church organizations.

The Church's need for revenues to support its services is no less because of its status as a religion. RTC points out that it receives six percent of what the individual churches receive in licensing fees. This evidence is sufficient to establish the value of the Advanced Technology works to the Church.

Erlich also argues that, to constitute a trade secret, information must give its owner a *competitive* advantage, which implies that the Church must have competitors. Although Erlich is clearly not a "competitor" of the Church, there is no requirement that a trade secret have any value to the defendant; the value can be to others who do not possess it. This evidence can be shown by direct evidence of the impact of the information on the business or by circumstantial evidence of the resources invested in producing the information, the precautions taken to protect its secrecy, and the willingness of others to pay for its access. The several past instances of breakaway Scientology-like groups exploiting RTC's Advanced Technology works for their profit constitute reasonable circumstantial evidence that these works give the Church a competitive advantage. In fact, McShane's declaration constitutes direct evidence that the works have a significant impact on the donations received by the Church, providing a majority of its operating expenses. The status of the Advanced Technology works as trade secrets should not depend on Erlich's use of them. Accordingly, this court finds support for the court's conclusion in *Vien* that the Church has shown independent economic value.

What if Erlich had copied and distributed the documents to the members of a breakaway Scientology sect for use in their religious services? Compare *Worldwide Church of God v. Philadelphia Church of God, Inc.*, 227 F.3d 1110 (9th Cir. 2000), where a church discontinued the use of a book written by its founder because it "conveyed outdated views that were racist in nature," then sued for copyright infringement a new church that regarded the book as "central to its religious practice and required reading for all members."

Questions

1. Is a college football team's playbook a trade secret?
2. Are the questions on a standardized test administered by a nonprofit organization a trade secret? (Does it matter whether some questions are reused from year to year?)
3. Can recipes be trade secrets? Under what circumstances?

B Ownership

It is clear, uncontroversial, and unsurprising that the essential requirement for owning a trade secret is *actual secrecy*: the information must not be widely known. The concept is not complicated, but it is subtle. "Secrecy" is something of a term of art; whether something is considered secret as a factual matter depends heavily on what kinds of observation and disclosure trade secret law will protect against.

But because this book is, well, this book, we will also direct our attention to two other important facts about the way the actual-secrecy element operates. It resolves priority questions by allowing multiple independent parties each to have a trade secret in the same information. And it resolves questions of allocating ownership within collaborations by looking to contract, agency, and employment law.

1 Actual Secrecy

United States v. Lange
312 F.3d 263 (7th Cir. 2002)

Matthew Lange has been convicted of violating 18 U.S.C. § 1832, part of the Economic Espionage Act of 1996. This statute makes it a felony to sell, disseminate, or otherwise deal in trade secrets, or attempt to do so, without the owner's consent. Lange stole computer data from Replacement Aircraft Parts Co. (RAPCO), his former employer, and attempted to sell the data to one of RAPCO's competitors. He allows that his acts violated § 1832, if the data contained "trade secrets," but denies that the data met the statutory definition [that the] "information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, the public."

18 U.S.C. § 1839

RAPCO is in the business of making aircraft parts for the aftermarket. It buys original equipment parts, then disassembles them to identify (and measure) each component. This initial step of reverse engineering, usually performed by a drafter such as Lange, produces a set of measurements and drawings. Because this case involves an effort to sell the intellectual property used to make a brake assembly, we use brakes as an illustration.

Knowing exactly what a brake assembly looks like does not enable RAPCO to make a copy. It must figure out how to make a substitute with the same (or better) technical specifications. Aftermarket manufacturers must experiment with different alloys and compositions until they achieve a process and product that fulfils requirements set by the Federal Aviation Administration for each brake assembly. Completed assemblies must be exhaustively tested to demonstrate, to the FAA's satisfaction, that all requirements have been met; only then does the FAA certify the part for sale. For brakes this entails 100 destructive tests on prototypes, bringing a spinning 60-ton wheel to a halt at a specified deceleration measured by a dynamometer. Further testing of finished assemblies is required. It takes RAPCO a year or two to design, and obtain approval for, a complex part; the dynamometer testing alone can cost $75,000. But the process of experimenting and testing can be avoided if the manufacturer demonstrates that its parts are identical (in composition and manufacturing processes) to parts that have already been certified. What Lange, a disgruntled former employee, offered for sale was all the information required to obtain certification of several components as identical to parts for which RAPCO held certification. Lange included with the package – which he offered via the Internet to anyone willing to pay his price of $100,000 – a pirated copy of AutoCAD, the computer-

assisted drawing software that RAPCO uses to maintain its drawings and specifications data. One person to whom Lange tried to peddle the data informed RAPCO, which turned to the FBI. Lange was arrested following taped negotiations that supply all the evidence necessary for conviction – if the data satisfy the statutory definition of trade secrets.

According to Lange, all data obtained by reverse engineering some other product are "readily ascertainable ... by the public" because everyone can do what RAPCO did: buy an original part, disassemble and measure it, and make a copy. The prosecutor responds to this contention by observing that "the public" is unable to reverse engineer an aircraft brake assembly.

The prosecutor's assumption is that the statutory reference in § 1839(3) to "the public" means the general public – the man in the street. Ordinary people don't have AutoCAD and 60-ton flywheels ready to hand. But is the general public the right benchmark?

A problem with using the general public as the reference group for identifying a trade secret is that many things unknown to the public at large are well known to engineers, scientists, and others whose intellectual property the Economic Espionage Act was enacted to protect. This makes the general public a poor benchmark for separating commercially valuable secrets from obscure (but generally known) information. Suppose that Lange had offered to sell Avogadro's number for $1. Avogadro's number, 6.02×10^{23}, is the number of molecules per mole of gas. It is an important constant, known to chemists since 1909 but not to the general public (or even to all recent graduates of a chemistry class). We can't believe that Avogadro's number could be called a trade secret. Other principles are known without being comprehended. Most people know that $E = mc^2$, but a pop quiz of the general public would reveal that they do not understand what this means or how it can be used productively.

One might respond that the context of the word "public" addresses this concern. The full text of § 1839(3)(B) is: "the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, the public". Avogadro's number and other obscure knowledge is not "generally known to" the man in the street but might be deemed "readily ascertainable to" this hypothetical person. It appears in any number of scientific handbooks. Similarly one can visit a library and read Einstein's own discussion of his famous equation. Members of the general public can ascertain even abstruse information, such as Schrodinger's quantum field equation, by consulting people in the know – as high school dropouts can take advantage of obscure legal rules by hiring lawyers.

Section 1839(3)(B) as a whole refers to the source of economic

value – that the information is not known to or easily discoverable by persons who could use it productively. And for purposes of this case those people would be engineers and manufacturers of aircraft parts, who have ample means to reverse engineer their competitors' products. It is by keeping secrets from its rivals that RAPCO captures the returns of its design and testing work. Thus it is unnecessary here to decide whether "general" belongs in front of "public" – for even if it does, the economically valuable information is not "readily ascertainable" to the general public, the educated public, the economically relevant public, or any sensible proxy for these groups.

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 "derived 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. It was his customer's cooperation with the FBI, and not public access to the data, that prevented closing of the sale.

Religious Technology Center v. Netcom On-Line Communications Services, Inc.

923 F. Supp. 1231 (N.D. Cal. 1995)

Erlich raises a number of objections to the Church's claims of confidentiality. Erlich argues that the Church's trade secrets have been made available to the public through various means. The unprotected disclosure of a trade secret will cause the information to forfeit its trade secret status, since "information that is generally known or readily ascertainable through proper means by others is not protectable as a trade secret." Once trade secrets have been exposed to the public, they cannot later be recalled.

Restatement § 39 cmt. f.

Erlich argues that many of the Advanced Technology documents have been available in open court records in another case, *Church of Scientology Int'l v. Fishman*, destroying the necessary element of secrecy. However, the *Fishman* court recently issued an order sealing the file pending a decision on whether the documents are trade secrets. Even if those records were temporarily open to the public, the court will not assume that their contents have been generally disclosed, especially when this question is still pending before the district court in *Fishman*. Such a disclosure, without evidence that the secrets have become generally known, does not necessarily cause RTC to forfeit its trade secrets. The contrary result would mean that if documents were ever filed without a sealing order, even for a short time, the court would not be able to decide that they should be sealed because the documents would have lost their potential trade secret status by virtue of the temporary unsealing. The only fair result would be to allow trade secret status for works that are otherwise protectable as trade secrets unless they were somehow made generally available to the public during the period they were unsealed, such as by publication.

Fishman: No. 91-6426 (C.D. Cal. 1994)

Erlich further asserts that the Advanced Technology has been largely disclosed in the popular press. These articles may reveal information referring to or hinting at the trade secrets, but may not disclose the secrets themselves. However, as previously noted, the court is not certain how to properly define the "secrets." To the extent that someone uses or discloses any information taken from any of these articles, there is clearly no trade secret claim. However, much of Erlich's postings copied all or almost all of sections of the Advanced Technology works, which is far more than has ever been disclosed in the popular press. In fact, several of the works posted by Erlich are not mentioned in any of the clippings in the Berger declaration. Arguably, the Church's alleged secrets are such that their value depends on the availability of the complete courses and not mere fragments, thus disclosures that describe parts of the works or disclose isolated portions do not necessarily suffice to ruin the value of the entire works as secrets. However, without a clearer definition of what constitute the "secrets," the court is unable to determine whether some have been made generally known to the public.

Finally, Erlich newly emphasizes in his Reply that the works he posted were not secrets because he received them through proper means: eight of the documents were allegedly previously posted anonymously to a public portion of the Internet and one of the documents allegedly came to Erlich anonymously through the U.S. mail. Erlich claims that because the alleged trade secrets were received from "public sources," they should lose their trade secret protection. Although the Internet is a new technology, it requires no great leap

to conclude that because more than 25 million people could have accessed the newsgroup postings from which Erlich alleges he received the works, these works would lose their status as secrets. While the Internet has not reached the status where a temporary posting on a newsgroup is akin to publication in a major newspaper or on a television network, those with an interest in using the Church's trade secrets to compete with the Church are likely to look to the newsgroup. Thus, posting works to the Internet makes them "generally known" to the relevant people – the potential "competitors" of the Church.

The court is troubled by the notion that any Internet user, including those using "anonymous remailers" to protect their identity, can destroy valuable intellectual property rights by posting them over the Internet, especially given the fact that there is little opportunity to screen postings before they are made. Nonetheless, one of the Internet's virtues, that it gives even the poorest individuals the power to publish to millions of readers, can also be a detriment to the value of intellectual property rights. The anonymous (or judgment proof) defendant can permanently destroy valuable trade secrets, leaving no one to hold liable for the misappropriation. Although a work posted to an Internet newsgroup remains accessible to the public for only a limited amount of time, once that trade secret has been released into the public domain there is no retrieving it. While the court is persuaded by the Church's evidence that those who made the original postings likely gained the information through improper means, as no one outside the Church or without a duty of confidence would have had access to those works, this does not negate the finding that, once posted, the works lost their secrecy. Although Erlich cannot rely on his own improper postings to support the argument that the Church's documents are no longer secrets, evidence that another individual has put the alleged trade secrets into the public domain prevents RTC from further enforcing its trade secret rights in those materials. Because there is no evidence that Erlich is a privy of any of the alleged original misappropriators, he is not equitably estopped from raising their previous public disclosures as a defense to his disclosure. The court is thus convinced that those postings made by Erlich were of materials that were possibly already generally available to the public. Therefore, RTC has not shown a likelihood of success on an essential element of its trade secret claim.

Exploits Problem

Exploit brokers are in the business of helping people defeat computer security. Governments want to thumb through the hard drives of terrorists, criminals, and dissidents. Identity thieves want passwords and bank account numbers. Extortionists want to delete data and hold it for ransom. Corporate spies want access to competitors' com-

puters. All of them are willing to pay handsomely for the technical tools that enable them to do so. These tools are typically built around "exploits": short pieces of software that take advantage of bugs in commonly-used software like Windows, Adobe Flash, and iOS. As soon as as software companies learn about these bugs, they race to issue updates to fix them; once that happens, any exploits based on those bugs stop working. Thus, secrecy is essential to the exploit business in two ways: many of the uses are illegal, and exploits become worthless soon after they become public knowledge.

Can exploit brokers – who buy exploits from the computer security experts who discover them and then resell those exploits to various clients – rely on trade secret law? Should they be able to? Do the materials in this chapter and the previous one shed any light on how you would expect the exploit business to work, and how it ought to be regulated?

2 Priority

Because there is no requirement that a trade secret be unique – more than one person can have the same information and each has a valid and independent trade secret provided the other requirements are met – trade secret does not generally raise difficult issues about which of several competing claimants developed the information first.

3 Collaborations

Restatement (Third) of Unfair Competition

§ 42
Breach of Confidence by Employees

cmt. e. *Allocation of ownership between employers and employees.* – The law of agency has established rules governing the ownership of valuable information created by employees during the course of an employment relationship. See Restatement, Second, Agency § 397. In the absence of a contrary agreement, the law ordinarily assigns ownership of an invention or idea to the person who conceives it. However, valuable information that is the product of an employee's assigned duties is owned by the employer, even when the information results from the application of the employee's personal knowledge or skill.

An employee is ordinarily entitled to claim ownership of patents and trade secrets developed outside the scope of the employee's assigned duties, even if the invention or idea relates to the employer's business and was developed using the employer's time, personnel, facilities, or equipment. In the latter circumstances, however, the employer is entitled to a "shop right"—an irrevocable, nonexclusive, royalty-free license to use

the innovation. Similarly, employees retain ownership of information comprising their general skill, knowledge, training, and experience.

Although the rules governing ownership of valuable information created during an employment relationship are most frequently applied to inventions, the rules are also applicable to information such as customer lists, marketing ideas, and other valuable business information. If an employee collects or develops such information as part of the assigned duties of the employment, the information is owned by the employer. Thus, if the information qualifies for protection as a trade secret, unauthorized use or disclosure will subject the employee to liability.

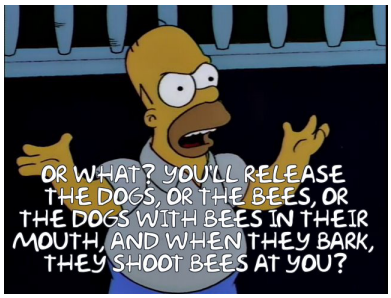
cmt. g. *Contractual protection*. – Absent an applicable statutory prohibition, agreements relating to the ownership of inventions and discoveries made by employees during the term of the employment are generally enforceable according to their terms. Employment agreements sometimes include provisions granting the employer ownership of all inventions and discoveries conceived by the employee during the term of the employment. In some situations, however, it may be difficult to prove when a particular invention was conceived. The employee may have an incentive to delay disclosure of the invention until after the employment is terminated in order to avoid the contractual or common law claims of the employer. It may also be difficult to establish whether a post-employment invention was improperly derived from the trade secrets of the former employer. Some employment agreements respond to this uncertainty through provisions granting the former employer ownership of inventions and discoveries relating to the subject matter of the former employment that are developed by the employee even after the termination of the employment. Such agreements can restrict the former employee's ability to exploit the skills and training desired by other employers and may thus restrain competition and limit employee mobility. The courts have therefore subjected such "holdover" agreements to scrutiny analogous to that applied to covenants not to compete. Thus, the agreement may be unenforceable if it extends beyond a reasonable period of time or to inventions or discoveries resulting solely from the general skill and experience of the former employee.

C Procedures

The most important – and arguably the only – procedural prerequisite to having a valid trade secret is making *reasonable efforts* to pre-

serve its secrecy. There is no requirement that the owner of a trade secret register it as one with a government agency, or take other formal steps to identify the secret in advance. Remember that everyone agrees a trade secret must actually be secret to be protected; what does a reasonable efforts requirement add? Why?

The Restatements treated reasonable efforts as part of the secrecy analysis. Under the UTSA, EEA, and DTSA, it is a separate element.



Reasonable efforts? (*The Simpsons* episode 1F16 ("Burns' Heir"))

United States v. Lange
312 F.3d 263 (7th Cir. 2002)

One ingredient of a trade secret is that "the owner thereof has taken reasonable measures to keep such information secret". Lange contends that the proof fell short, but a sensible trier of fact could have concluded that RAPCO took "reasonable measures to keep the information secret". RAPCO stores all of its drawings and manufacturing data in its CAD room, which is protected by a special lock, an alarm system, and a motion detector. The number of copies of sensitive information is kept to a minimum; surplus copies are shredded. Some information in the plans is coded, and few people know the keys to these codes. Drawings and other manufacturing information contain warnings of RAPCO's intellectual property rights; every employee receives a notice that the information with which he works is confidential. None of RAPCO's subcontractors receives full copies of the schematics; by dividing the work among vendors, RAPCO ensures that none can replicate the product. This makes it irrelevant that RAPCO does not require vendors to sign confidentiality agreements; it relies on deeds (the splitting of tasks) rather than promises to maintain confidentiality. Although, as Lange says, engineers and drafters knew where to get the key to the CAD room door, keeping these employees out can't be an ingredient of "reasonable measures to keep the information secret"; then no one could do any work. So too with plans sent to subcontractors, which is why dissemination to suppliers does not undermine a claim of trade secret.

Religious Technology Center v. Netcom On-Line Communications Services, Inc.
923 F. Supp. 1231 (N.D. Cal. 1995)

Information is protectable as a trade secret where the owner has taken efforts that are reasonable under the circumstances to maintain its secrecy. "Reasonable efforts" can include advising employees of the existence of a trade secret, limiting access to the information on a "need to know basis," and keeping secret documents under lock. The court finds that RTC has put forward sufficient evidence that it took steps that were reasonable under the circumstances to protect its purported trade secrets. RTC's president describes elaborate means taken to ensure the confidentiality of the Advanced Technology works, including use of locked cabinets, safes, logging and identification of the ma-

terials, availability of the materials at only a handful of sites worldwide, electronic sensors attached to documents, locked briefcases for transporting works, alarms, photo identifications, security personnel, and confidentiality agreements for all of those given access to the materials. McShane testifies that all copies of the Advanced Technology works that are outside of the Church were gained through improper means, such as by theft. Thirty-five other declarants confirm that the measures mentioned by McShane have been used, though not in exactly the same manner, in other Churches and at other times. There is further evidence that Erlich himself signed confidentiality agreements with respect to the Advanced Technology materials and, specifically, the upper-level "NOTS" course materials. The court is unpersuaded by Erlich's claims that the Church's measures have not covered all locations where the Advanced Technology works are found and do not cover crucial time periods. Efforts at maintaining secrecy need not be extreme, just reasonable under the circumstances. The Church has made more than an adequate showing on this issue.[25]

Rockwell Graphic Systems, Inc. v. DEV Industries, Inc.
925 F.2d 174 (7th Cir. 1991)

Rockwell, which manufactures printing presses, sued DEV, a competing manufacturer, for making replacement parts for Rockwell presses. A key component of Rockwell's claims ws that DEV had in its possession about 100 "piece part drawings": detailed manufacturing diagrams for parts to Rockwell presses. Rockwell alleged that the piece part drawings had been stolen by former Rockwell employees including Fleck and Peloso, both of whom were subequently employed by DEV. Along the way, DEV argued that Rockwell failed to make reasonable efforts to keep the diagrams secret, which led Judge Posner to discuss the purpose of the reasonable efforts requirement.

The requirement of reasonable efforts has both evidentiary and remedial significance, and this regardless of which of the two different conceptions of trade secret protection prevails. (Both conceptions have footholds in Illinois law, as we shall see.) The first and more common merely gives a remedy to a firm deprived of a competitively valuable secret as the result of an independent legal wrong, which might be conversion or other trespass or the breach of an employment contract or of a confidentiality agreement. Under this approach, because the secret must be taken by improper means for the taking to give rise to liability, the only significance of trade secrecy is that it allows the victim of wrongful appropriation to obtain damages based on the competitive value of the information taken. The second conception of trade secrecy is that "trade secret" picks out a class of socially valuable information that the law should protect even against nontrespassory or other lawful conduct.

It should be apparent that the two different conceptions of trade

[25]The notion that the Church's trade secrets are disclosed to thousands of parishioners makes this a rather unusual trade secrets case. However, because parishioners are required to maintain the secrecy of the materials, the court sees no reason why the mere fact that many people have seen the information should negate the information's trade secret status. While it is logically more likely that a secret will leak out when more people are entrusted with it, absent evidence of leakage the court finds that giving out the secrets to a large number of people, though no more than necessary, is not itself an unreasonable security step.

secret protection are better described as different emphases. The first emphasizes the desirability of deterring efforts that have as their sole purpose and effect the redistribution of wealth from one firm to another. The second emphasizes the desirability of encouraging inventive activity by protecting its fruits from efforts at appropriation that are, indeed, sterile wealth-redistributive – not productive – activities. The approaches differ, if at all, only in that the second does not limit the class of improper means to those that fit a preexisting pigeonhole in the law of tort or contract or fiduciary duty – and it is by no means clear that the first approach assumes a closed class of wrongful acts, either.

Under the first approach, at least if narrowly interpreted so that it does not merge with the second, the 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.

Under the second theory of trade secret protection, the owner's precautions still have evidentiary significance, but now primarily as evidence that the secret has real value. For the precise means by which the defendant acquired it is less important under the second theory, though not completely unimportant; remember that even the second theory allows the unmasking of a trade secret by some means, such as reverse engineering. 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 Rockwell 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. This is true whether the trade secret is regarded as property protected only against wrongdoers or as property protected against the world. In the first case, a defendant is perfectly entitled to obtain the property by lawful conduct if he can, and he can if the property is in the hands of persons who themselves committed no wrong to get it. In the second case the defendant is perfectly entitled to obtain the property if the plaintiff has abandoned it by giving it away without restrictions.

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.

Restatement (First) of Torts

§ 757
Liability for Disclosure or Use of Another's Trade Secret--General Principle

cmt. b *Definition of trade secret*. – An exact definition of a trade secret is not possible. Some factors to be considered in determining whether given information is one's trade secret are: (1) the extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and to his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

A six-factor "test" based on this comment is in common use, even in states which have adopted the UTSA, to determine whether information is a trade secret. Which elements of protectability do the various factors bear on? How helpful are they?

D Infringement: Similarity

The essence of trade secret misappropriation is to obtain or use secret information acquired through "improper means." Note that this essence includes an implicit requirement that the information the defendant obtained or used is the *same* information the plaintiff claims as a trade secret.

Big Vision Private, Ltd. v. E.I. Dupont De Nemours & Co.
1 F. Supp. 3d 224 (S.D.N.Y. 2014)

Big Vision's second argument is that DuPont's recyclable banner product lines misappropriate Big Vision's trade secret. Quite simply, Big Vision cannot demonstrate that its recyclable banners are substantially similar to DuPont's. The parties do not dispute that DuPont's recyclable banner products are not made by either lamination or coextrusion. None of DuPont's recyclable banner products use the three-layer structures tested at the Trials, the range of $CaCO_3$ tested at the Trials, or "minimal" amounts of Entira (to the extent it has been defined), since DuPont's products either use 100% or 0% Entira. Furthermore, DuPont's recyclable banner products are not printable with solvent ink. Thus, to the extent Big Vision's trade secret is discernible, DuPont's products implicate almost none of its elements.[60]

[60]Plaintiff argues that because DuPont's banners do not exhibit the four-item "wish list" that Big Vision's trade secret is supposed to cause, DuPont must have

E Infringement: Prohibited Conduct

Before you dive into the new cases, look back at *Netcom*, *Lange*, and *Rockwell*. You read them as cases on the existence of trade secrets. *They are also cases on misappropriation.* What did the defendants in each case do? Was it misappropriation? This duality is typical of intellectual property cases. Both protectability and misappropriation are required to find a defendant liable, which means that both protectability and misappropriation are potentially in play in every case. A trade secret defendant can win by showing that the plaintiff lacked a valid protectable trade secret in the first place, or by showing that the defendant did not misappropriate that trade secret.

For more on the relationship between protection and infringement, see Mark A. Lemley & Mark P. McKenna, *Scope*, 57 Wm & Mary L. Rev. 2197 (2016).

1 Proving Infringement

Grynberg v. BP, PLC

No. 06 Civ. 6494 (RJH), 2011 U.S. Dist. LEXIS 34286 (S.D.N.Y. Mar. 30, 2011)

In the enormous record before the court, there is no direct evidence that ARCO used Grynberg's information in evaluating Tengiz or the Caspian pipeline. How ARCO came to make those investments is no mystery however: engineers and executives alike have testified in detail as to the evaluation and decision-making process. With respect to both investments, publically available resources were used initially, and then supplemented at length in data rooms set up by the organizations managing the investment – for Tengiz the Chevron data room and for the Caspian Pipeline the Oman data room. Further, although plaintiff's experts state generally that the publically available sources were inferior to Grynberg's information, plaintiff concedes that his information – obtained in 1989-90 – was "outdated" by 1996. Moreover, plaintiff admits that when Chevron invested in Tengiz it had been given access by the Kazakhs to all the information to which Grynberg was privy, information that would have been available in the comprehensive and up to date data rooms prepared for ARCO when it reviewed the Tengiz investment years later.

Plaintiff argues that ARCO's alleged use can be proven circumstantially, in much the same way that "use of a trade secret can be proven by showing access to the trade secret plus the subsequent similarity of the trade secret and a Defendant's product." Indeed, the law of trade secrets acknowledges the basic logic that when two products look alike, there is probably more than a coincidental connection between them. See *Electro-Miniatures Corp. v. Wendon Co.* (mis-

Electro-Miniatures: 771 F.2d 23, 26 (2d Cir. 1985)

ineptly misappropriated its trade secret. While clever, this argument is not a fair reading of the record, which makes clear that DuPont's recyclable banners are simply not substantially similar to Big Vision's alleged trade secret.

appropriation provable by circumstantial evidence where company that had struggled to produce printed circuit slip rings suddenly "issued a catalog depicting an entire line of printed circuit slip ring assemblies, resembling those built by the plaintiff"). Nor is there any inherent reason to limit this approach to cases involving products (electrical or otherwise). Logically, in any case where what is done or produced by the alleged thief bears some unique markers of the allegedly stolen secrets, it may be inferred that the thief used the secrets. Thus in *Rochester Midland Corp. v. Enerco Corp.*, use of pricing, product, and customer information could be inferred where eighteen accounts associated with a poached employee switched to the defendant company shortly after the confidential information was brought over. However, the inference is only as strong as logic demands – where an alleged thief's products lack a suspicious similarity to the secrets, the inference would not lie.

Rochester Midland: No. 1:08-cv98, 2009 U.S. Dist. LEXIS 46103, 2009 WL 1561817, *19 (W.D. Mich. June 1, 2009)

Grynberg could make a circumstantial case for use under this theory, then, only to the extent that ARCO's actions bore the unique marks of his information, or showed a suspicious similarity to it. ARCO did eventually make investments in Tengiz and the Caspian pipeline, which were among the investments that Grynberg had endorsed and relayed information about. However ARCO also declined to pursue other investments Grynberg had advocated, such as the Karachaganak oil field also in the area of mutual interest. Moreover nothing about ARCO's investments bears the markers of the Grynberg information in such a way as to justify inferring the use of that information. It is not as if ARCO built wells at particular locations previously suggested by Grynberg, worked primarily through contacts developed by Grynberg, or tied its investments to Grynberg's numbers in a suspiciously similar way. Rather, an oil company chose to invest in one of the largest oil fields in the world, in a manner different from that envisioned by Grynberg at the time he developed his proposed consortium. That it did so is unsurprising and does not evince the kind of suspicious similarity present in *Electro-Miniatures* and *Rochester Midland*. Accordingly an inference of use based on similarity is not appropriate here.

2 Direct Infringement

Restatement (Third) of Unfair Competition

"Improper" means of acquiring another's trade secret ... include theft, fraud, unauthorized interception of communications, inducement of or knowing participation in breach of confidence, and other means either wrongful in themselves or wrongful under the circumstances

§ 43
Improper Acquisition of Trade Secrets

of the case. Independent discovery and analysis of publicly available products or information are not improper means of acquisition.

Uniform Trade Secrets Act

§ 1(1)
Definitions

"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;

These lists of "improper means" can be roughly divided into two types of wrongful conduct. On the one hand there is *espionage*, which often involves theft, trespass, or computer hacking. On the other hand there is *breach of confidence*, which often involves violating a promise to keep someone else's secrets. It is tempting to to conclude that "improper means" consist of torts (espionage) and breach of contract (breach of confidence), but this equation is a little too pat.

E.I. du Pont de Nemours & Co. v. Christopher
431 F.2d 1012 (5th Cir. 1970)

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 de Nemours & 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.

Edmund Kitch, in *The Law and Economics of Rights in Valuable Information*, 9 J. Legal Stud. 683 (1980), speculates that "The appearance of the airplane at such an opportune moment [may have] suggested to DuPont that some kind of inside leak had tipped off the photographers (or their client) to the opportunity."

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.

The Christophers argued both at trial and before this court that they committed no "actionable wrong" in photographing the DuPont facility and passing these photographs on to their client because they conducted all of their activities in public airspace, violated no government aviation standard, did not breach any confidential relation, and did not engage in any fraudulent or illegal conduct. In short, the 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.

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*. 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. Later another Texas court explained:

Hyde: 314 S.W.2d 763 (Tex. 1958)

> 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. 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 inde-

Fowler: 316 S.W.2d 111 (Tex. Civ. App. 1958)

pendently 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.

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 marketplace must not deviate far from our mores. We should not require a person or corpora-

tion 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."

Having concluded that aerial photography, from whatever altitude, is an improper method of discovering the trade secrets exposed during construction of the DuPont plant, we need not worry about whether the flight pattern chosen by the Christophers violated any federal aviation regulations. Regardless of whether the flight was legal or illegal in that sense, the espionage was an improper means of discovering DuPont's trade secret.

Would *Christopher* have been decided the same way if it were 2015 and the defendants used publicly available satellite photos from Google Earth to observe the the construction of the plant? What if they flew a small ten-pound remote-control drone over the plant? What if they flew the drone over their neighbor's fenced backyard and photographed him sunbathing nude?

Kamin v. Kuhnau

374 P.2d 912 (Or. 1962)

For approximately 25 years plaintiff had been employed by a knitting mill as a mechanic. In 1953 he entered into the garbage collection business. From the time plaintiff entered into the garbage collection business he began thinking of methods of facilitating the loading of garbage trucks and of compressing or packing the materials after they were loaded. By 1955 he had done some experimental work on his own truck, devising a hoist mechanism operated by hydraulic cylinders to lift a bucket from the ground to the top of the truck box. By this time he had also arrived at the conclusion that the packing of the loaded materials could best be effected through the use of a hydraulically operated plow which would move against the loaded materials and compress them against the interior of the truck. At the time plaintiff conceived this solution there were on the market garbage truck bodies containing various "packer" mechanisms, including hydraulically operated plows. However, plaintiff and defendant apparently were not aware of the use of hydraulic cylinders for this purpose and thought that plaintiff's idea was novel in this respect.

In January, 1955, plaintiff made arrangements with defendant Kuhnau, president and manager of Oregon Rental Equipment Company, to use the company's machine shop and one or more of its employees to assist plaintiff in carrying on further experimental work in developing plaintiff's ideas. This experimental work was carried on for approximately one year. According to plaintiff's evidence, all of the experimental work was done under his supervision and Kuhnau

had no voice or control as to the manner in which the developmental work was to be carried on. It is Kuhnau's contention that he and the employees of Oregon Rental Equipment Company contributed suggestions and ideas which were used in the development and improvement of the truck body and compressor mechanism.

In the course of working on the project several persons who were engaged in the garbage collection business came to the defendant's machine shop, observed the progress being made by plaintiff and made suggestions as to the practical application of plaintiff's idea. Sometime in the summer of 1956 the truck and compressor mechanism which plaintiff was seeking to develop was crystallized substantially in the form in which it now exists.

When plaintiff had completed his experimental work he began to receive orders for truck bodies embodying his improvements. The first two units sold were manufactured by Oregon Rental Equipment Company. After the sale of these two units (in the spring of 1956) Kuhnau terminated his connections with Oregon Rental Equipment Company. He rented a machine shop at another location and began business under the name of R.K. Truck Sales. Between May and October, 1956, he manufactured ten units for plaintiff. For each unit Kuhnau received an amount agreed upon by the parties. Plaintiff fixed the selling price of the unit and his profit consisted of the difference between the selling price and the amount he paid Kuhnau.

On or about October 1, 1956, Kuhnau informed plaintiff that he was going to manufacture truck bodies in competition with plaintiff. Kuhnau testified that the relationship was terminated as a result of a disagreement over the amount he was to receive for manufacturing the unit for plaintiff. Plaintiff contends that Kuhnau terminated the relationship for the purpose of entering into competition with plaintiff. The units manufactured by Kuhnau were similar to those which he had previously manufactured for plaintiff. However, there were some differences in the design of the two units. The principal difference was that Kuhnau mounted the hydraulic cylinder operating the plow or blade under the truck bed whereas the cylinder in plaintiff's truck was above the bed. There was testimony supporting plaintiff's assertion that it was his idea to place the cylinder under the bed of the truck but that suggestion was not adopted because Kuhnau did not think it was feasible.

Whether the information disclosed was intended to be appropriable by the disclosee will depend upon the relationship of the parties and the circumstances under which the disclosure was made. It is not necessary to show that the defendant expressly agreed not to use the plaintiff's information; the agreement may be implied. And the implication may be made not simply as a product of the quest for the intention of the parties but as a legal conclusion recognizing the

need for ethical practices in the commercial world. In the case at bar the relationship between plaintiff and Kuhnau was such that an obligation not to appropriate the plaintiff's improvements could be implied. Kuhnau was paid to assist plaintiff in the development of the latter's idea. It must have been apparent to Kuhnau that plaintiff was attempting to produce a unit which could be marketed. Certainly it would not have been contemplated that as soon as the packer unit was perfected Kuhnau would have the benefit of plaintiff's ideas and the perfection of the unit through painstaking and expensive experimentation. It is to be remembered that the plaintiff's experimentation was being carried on, not on the assumption that he was duplicating an existing machine, but upon the assumption that he was creating a new product. It has been recognized in the cases that a manufacturer who has been employed to develop an inventor's ideas is not entitled to appropriate those ideas to his own use.

Hyde is closely in point. In that case the defendant manufacturer, having gained knowledge of a garbage compressor through a licensing agreement with the plaintiff inventor, repudiated the agreement and proceeded to manufacture and sell on its own account a compressor of similar design. Defendant was enjoined. The court held that the parties were in a confidential relationship and that the information relating to the compressor acquired by the defendant incident to that relationship could not be appropriated by him. In that case, as in the present case, plaintiff obtained a patent during the course of the trial. The defendant argued that since plaintiff's process was revealed by the patent the process could not be regarded as a trade secret. The court held that the public disclosure of plaintiff's process did not remove defendant's duty not to exploit the economic advantage gained through the information initially disclosed to him by plaintiff. We see no essential difference between the facts in the Hyde case and the case at bar.

The principles applied in the foregoing cases have been recognized by this court. In *McKinzie v. Cline*, the plaintiff employed the defendants to manufacture a gun swivel which one of the plaintiffs had invented. The defendants discontinued manufacturing the swivel for the plaintiffs and proceeded to manufacture and sell it for their own account. It was held that defendants violated a confidential relationship which existed between the parties and that therefore plaintiffs were entitled to an injunction and damages. In that case, as in the present one, plaintiffs had placed their product on the market and had discussed its manufacture with various machinists. The court noted that there was no "evidence in the record that anyone other than defendant Cline and the plaintiffs had any knowledge of the inside workings of the gadget." The court went further and held that even though others might have become acquainted with the manufac-

McKinzie: 252 P.2d 564 (Or. 1953)

turing process this would not entitle the defendants to violate the confidence reposed in them by the plaintiffs. With respect to this point, defendants in the present case argue that the *McKinzie* case is distinguishable from the case at bar in that the mechanism of the gun swivel was complex, whereas the mechanism of the garbage truck was not. The evidence does not support this contention. The description of the packer mechanism, particularly the manner in which the blade was attached (the proper adjustment of which was one of the principal improvements claimed by plaintiff), would indicate that it was of such complexity that more than a general inspection of the unit would be required to reveal the secret of plaintiff's improvements. The *McKinzie* case followed the line of authority previously discussed which de-emphasizes the elements of secrecy and novelty and stresses the breach of the confidential relation between the parties. The court adopted the higher standard of commercial ethics to which we have already alluded:

> If our system of private enterprise on which our nation has thrived, prospered and grown great is to survive, fair dealing, honesty and good faith between contracting parties must be zealously maintained; therefore, if one who has learned of another's invention through contractual relationship, such as in the present case, takes unconscionable and inequitable advantage of the other to his own enrichment and at the expense of the latter, a court of equity will extend its broad equitable powers to protect the party injured.

We reaffirm this declaration of business ethics and hold that defendant Kuhnau violated his duty to plaintiff by appropriating the information derived through their business relationship.

Defendants contend that there was no proof that their product contained the improvements alleged to have been developed by plaintiff. There is evidence that the plaintiff's and defendants' trucks were similar in structure and design. The trial judge, who inspected the trucks, concluded that defendants' trucks used the improvements developed by plaintiff. Where a person develops a product similar to that developed by his discloser, the proof of similarity may be sufficient to impose upon the disclosee the burden of proving that there was no misappropriation. *Hoeltke v. C.M. Kemp Mfg. Co.* stated: "The similarity of defendant's device to that of complainant is strong proof that one was copied from the other; for it is hardly probable that different persons should independently of each other invent devices so nearly similar at so nearly the same time." In the same case the court said that "one who admittedly receives a disclosure from an inventor, proceeds thereafter to manufacture articles of similar character,

Hoeltke: 80 F.2d 912 (4th Cir. 1936)

and, when called to account, makes answer that he was using his own ideas and not the ideas imparted to him" must sustain his position by proof that is "clear, satisfactory, and beyond a reasonable doubt." We are of the opinion that there was sufficient evidence to support the conclusion that defendants appropriated plaintiff's improvements.

3 Secondary Infringement

If a vice-president at MatrixCorp receives an email from someone calling himself Cypher offering to provide details of a computer graphics technology similar to one used by its competitor NeoCorp, can he take the deal? A moment's thought should suggest that the answer depends on how Cypher obtained the information and on what MatrixCorp knows about it. What about MatrixCorp's customers? Do they need to worry that their widgets were produced using a misappropriated trade secret?

Uniform Trade Secrets Act

§ 1
Definitions

(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.

F Defenses

The two most significant "defenses" to trade secret infringement are independent discovery and reverse engineering. I put "defenses" in quotation marks to emphasize that neither adds anything to the doctrines you have already seen. The defendant who establishes that she independently came up with the same information has actually defeated a crucial element of the plaintiff's case-in-chief: that the defendant stole the information *from the plaintiff*.

For more, see *Grynberg* and the last paragraph of *Kamin*

Similarly, the usual definitions of "improper means" simply exclude reverse engineering: the plaintiff who proves only that the defendant reverse engineered her product has again failed to show an act of misappropriation. Reverse engineering is conventionally defined as "starting with the known product and working backward to divine the process which aided in its development or manufacture." *Kewanee Oil Co. v. Bicron Corp.* Courts sometimes add that the "known product" must have been obtained lawfully: it is no defense to argue that you reverse engineered the widget-making-machine you stole from your competitor's factory.

Kewanee: 416 U.S. 470 (1974)

Why allow reverse engineering? For one thing, it reflects a policy of recognizing personal property owners' rights over their things. If you buy it, you can break it down. Reverse engineering also promotes the same values as trade secret law itself. In the words of the Supreme Court, it is "an essential part of innovation" that "often leads to significant advances in technology." *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*

Bonito Boats: 489 U.S. 14 (1989)

G Problems

Flaming Moe's Problem

Based on *Mason v. Jack Daniel Distillery*, 518 So.2d 130 (Ala. Ct. Civ. App. 1987)

Moe Szyslak is the owner of Moe's Tavern, where the specialty drink is a "Flaming Moe." Moe mixes the drinks in a back room, then sets them on fire in front of customers.

1. Representatives from Tipsy McStagger's Good-Time Drinking and Eating Emporium meet with Moe to discuss licensing the recipe. As part of the negotiations, Moe tells them how it's made. Tipsy McStagger's breaks off talks and start selling its own version. ***What result?***
2. A Tipsy's employee orders a Flaming Moe, pours it into a thermos, and uses a gas chromatograph to analyze its chemical composition. By so doing, he learns that the secret ingredient is cough syrup. ***What result?***

3. A Tipsy's employee goes to Moe's Tavern and bribes a bartender to tell her the formula. ***What result?***
4. Same facts as before, except that anyone who tastes the drink can recognize that it's cough syrup. The Tipsy's employee still bribes the bartender to tell them. ***What result?***
5. Woud Moe be better off trying to patent the formula for the Flaming Moe? Would society be better off if he did?

Locksmiths Problem

Based on *Chicago Lock Co. v. Fanberg*, 676 F.2d 400 (9th Cir. 1982)

You represent the Chicago Lock Company, whose "Ace" series of locks is used in vending machines, burglar alarms, and other high-security settings. Ace locks use an unusual cylindrical key that requires specialized equipment to cut. Each lock has a serial number printed on it; the company uses a secret formula to translate the configuration of tumblers inside the lock into a serial number. The company's policy is that it will sell replacement keys only to the registered owner of a lock with a given serial number. All Ace locks and keys are stamped "Do Not Duplicate."

For years, locksmiths have known how to analyze Ace locks. After a few minutes poking at the lock with their tools, they can write down the configuration of pins and tumblers inside the lock. They can then go back to their toolkits and grind a replacement key, which will open the lock. If the locksmiths keep the configuration information on file, they can grind replacement keys in the future without needing to go back to the lock and analyze it again. Individual locksmiths have, for years, kept such files for their local customers.

Recently, Morris and Victor Fanberg, two locksmiths, published a book entitled "AA Advanced Locksmith's Tubular Lock Codes." They asked locksmiths around the country to send them lists of Ace lock serial numbers and the corresponding tumbler configurations. Based on that information, they were able to program a computer to reconstruct Chicago's secret formula. The book contains a table that shows how to turn an Ace serial number into a key configuration, which any locksmith with the proper equipment could then use to cut a key opening the lock with that serial number.

Because the serial numbers on Ace locks are frequently printed on the outside, Chicago is concerned that the publication of this book will undermine the security of Ace locks. It has asked you whether it can and should sue the Fanbergs for damages and to halt publication of the book. What is your advice? Is there anything further it would be helpful for you to know? Are there changes that Chicago Lock can and should make to its procedures in the future?

H Other Secrecy Laws

This section isn't about trade secret law. Instead, it covers near misses to trade secret law: other laws protecting secrets (or in some cases, requiring them to be disclosed). As you read these materials, consider whether it is appropriate to describe each of these bodies of law as a kind of "intellectual property." Why or why not?

1 Trespass

Food Lion, Inc. v. Capital Cities/ABC, Inc.
194 F.3d 505 (4th Cir. 1999)

Two ABC television reporters, Lynne Dale and Susan Barnett, after using false resumes to get jobs at Food Lion supermarkets, secretly videotaped what appeared to be unwholesome food handling practices. Specifically, they sought to document Food Lion employees engaging in unsanitary practices, treating products to hide spoilage, and repackaging and redating out-of-date products. Some of the video footage was used by ABC in a *PrimeTime Live* broadcast that was sharply critical of Food Lion. [Food Lion sued and received $1 in compensatory damages for breach of loyalty, $1 in compensatory damages for trespass, and $5,547,150 in compensatory and punitive damages for fraud. The fraud claim was set aside because Dale and Barnett made no express representations about how long they would work and because "Dale and Barnett were not paid their wages because of misrepresentations on their job applications."]

II.

In North and South Carolina, as elsewhere, it is a trespass to enter upon another's land without consent. Accordingly, consent is a defense to a claim of trespass. Even consent gained by misrepresentation is sometimes sufficient. *See Desnick v. American Broad. Cos.*. The consent to enter is canceled out, however, if a wrongful act is done in excess of and in abuse of authorized entry.

The court also upheld the $1 award for breach of loyalty, explaining, "The interests of the employer (ABC) to whom Dale and Barnett gave complete loyalty were adverse to the interests of Food Lion, the employer to whom they were unfaithful."

Desnick: 44 F.3d 1345, (7th Cir.1995) (Posner, C.J.)

We turn first to whether Dale and Barnett's consent to be in nonpublic areas of Food Lion property was void from the outset because of the resume misrepresentations. Consent to an entry is often given legal effect even though it was obtained by misrepresentation or concealed intentions. Without this result,

> a restaurant critic could not conceal his identity when he ordered a meal, or a browser pretend to be interested in merchandise that he could not afford to buy. Dinner guests would be trespassers if they were false friends who never would have been invited had the host known their

> true character, and a consumer who in an effort to bargain down an automobile dealer falsely claimed to be able to buy the same car elsewhere at a lower price would be a trespasser in a dealer's showroom. *Desnick*.

We like *Desnick*'s thoughtful analysis about when a consent to enter that is based on misrepresentation may be given effect. In *Desnick* ABC sent persons posing as patients needing eye care to the plaintiffs' eye clinics, and the test patients secretly recorded their examinations. Some of the recordings were used in a *PrimeTime Live* segment that alleged intentional misdiagnosis and unnecessary cataract surgery. *Desnick* held that although the test patients misrepresented their purpose, their consent to enter was still valid because they did not invade "any of the specific interests [relating to peaceable possession of land] the tort of trespass seeks to protect:" the test patients entered offices "open to anyone expressing a desire for ophthalmic services" and videotaped doctors engaged in professional discussions with strangers, the testers; the testers did not disrupt the offices or invade anyone's private space; and the testers did not reveal the "intimate details of anybody's life." *Desnick* supported its conclusion with the following comparison:

What is it about ABC and *PrimeTime Live*?

> "Testers" who pose as prospective home buyers in order to gather evidence of housing discrimination are not trespassers even if they are private persons not acting under color of law. The situation of ABC's "testers" is analogous. Like testers seeking evidence of violation of anti-discrimination laws, ABC's test patients gained entry into the plaintiffs' premises by misrepresenting their purposes (more precisely by a misleading omission to disclose those purposes). But the entry was not invasive in the sense of infringing the kind of interest of the plaintiffs that the law of trespass protects; it was not an interference with the ownership or possession of land.

We have not found any case suggesting that consent based on a resume misrepresentation turns a successful job applicant into a trespasser the moment she enters the employer's premises to begin work. Moreover, if we turned successful resume fraud into trespass, we would not be protecting the interest underlying the tort of trespass – the ownership and peaceable possession of land. Accordingly, we cannot say that North and South Carolina's highest courts would hold that misrepresentation on a job application alone nullifies the consent given to an employee to enter the employer's property, thereby turning the employee into a trespasser.

There is a problem, however, with what Dale and Barnett did af-

ter they entered Food Lion's property. The jury also found that the reporters committed trespass by breaching their duty of loyalty to Food Lion "as a result of pursuing [their] investigation for ABC." We affirm the finding of trespass on this ground because the breach of duty of loyalty – triggered by the filming in non-public areas, which was adverse to Food Lion – was a wrongful act in excess of Dale and Barnett's authority to enter Food Lion's premises as employees.

Miller: 472 S.E.2d 350 (N.C. Ct. App. 1996)

The Court of Appeals of North Carolina has indicated that secretly installing a video camera in someone's private home can be a wrongful act in excess of consent given to enter. In the trespass case of *Miller v. Brooks* the (defendant) wife, who claimed she had consent to enter her estranged husband's (the plaintiff's) house, had a private detective place a video camera in the ceiling of her husband's bedroom. The court noted that "even an authorized entry can be trespass if a wrongful act is done in excess of and in abuse of authorized entry." The court went on to hold that "even if the wife had permission to enter the house and to authorize others to do so," it was a jury question "whether defendants' entries exceeded the scope of any permission given." We recognize that *Miller* involved a private home, not a grocery store, and that it involved some physical alteration to the plaintiff's property (installation of a camera). Still, we believe the general principle is applicable here, at least in the case of Dale, who worked in a Food Lion store in North Carolina. Although Food Lion consented to Dale's entry to do her job, she exceeded that consent when she videotaped in nonpublic areas of the store and worked against the interests of her second employer, Food Lion, in doing so.

We do not have a case comparable to *Miller* from South Carolina. Nevertheless, the South Carolina courts make clear that the law of trespass protects the peaceable enjoyment of property. It is consistent with that principle to hold that consent to enter is vitiated by a wrongful act that exceeds and abuses the privilege of entry.

Accordingly, as far as North and South Carolina law is concerned, the jury's trespass verdict should be sustained.

2 Insider Trading

United States v. O'Hagan
521 U.S. 642 (1997)

I

James Herman O'Hagan was a partner in the law firm of Dorsey & Whitney. In July 1988, Grand Metropolitan PLC (Grand Met) retained Dorsey & Whitney as local counsel to represent Grand Met regarding a potential tender offer for the common stock of the Pillsbury Company. Both Grand Met and Dorsey & Whitney took precau-

tions to protect the confidentiality of Grand Met's tender offer plans. O'Hagan did no work on the Grand Met representation. Dorsey & Whitney withdrew from representing Grand Met on September 9, 1988. Less than a month later, on October 4, 1988, Grand Met publicly announced its tender offer for Pillsbury stock.

On August 18, 1988, while Dorsey & Whitney was still representing Grand Met, O'Hagan began purchasing call options for Pillsbury stock. When Grand Met announced its tender offer in October, the price of Pillsbury stock rose to nearly $60 per share. O'Hagan then sold his Pillsbury call options and common stock, making a profit of more than $4.3 million.

The Securities and Exchange Commission (SEC or Commission) initiated an investigation into O'Hagan's transactions, culminating in a 57-count indictment. The indictment alleged that O'Hagan defrauded his law firm and its client, Grand Met, by using for his own trading purposes material, nonpublic information regarding Grand Met's planned tender offer.

II

A

In pertinent part, § 10(b) of the Securities Exchange Act of 1934 provides: 15 U. S. C. § 78j(b)

> It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce or of the mails, or of any facility of any national securities exchange –
>
> (b) To use or employ, in connection with the purchase or sale of any security registered on a national securities exchange or any security not so registered, any manipulative or deceptive device or contrivance in contravention of such rules and regulations as the [Securities and Exchange] Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors.

The statute thus proscribes (1) using any deceptive device (2) in connection with the purchase or sale of securities, in contravention of rules prescribed by the Commission. The provision, as written, does not confine its coverage to deception of a purchaser or seller of securities, rather, the statute reaches any deceptive device used "in connection with the purchase or sale of any security."

Pursuant to its § 10(b) rulemaking authority, the Commission has adopted Rule 10b-5 , which, as relevant here, provides: 17 CFR § 240.10b-5

> It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce, or

of the mails or of any facility of any national securities exchange,

(a) To employ any device, scheme, or artifice to defraud, [or]

(c) To engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person,

in connection with the purchase or sale of any security."

Under the "traditional" or "classical theory" of insider trading liability, § 10(b) and Rule 10b-5 are violated when a corporate insider trades in the securities of his corporation on the basis of material, nonpublic information. Trading on such information qualifies as a "deceptive device" under § 10(b) because a relationship of trust and confidence exists between the shareholders of a corporation and those insiders who have obtained confidential information by reason of their position with that corporation. That relationship gives rise to a duty to disclose or to abstain from trading because of the necessity of preventing a corporate insider from taking unfair advantage of uninformed stockholders. The classical theory applies not only to officers, directors, and other permanent insiders of a corporation, but also to attorneys, accountants, consultants, and others who temporarily become fiduciaries of a corporation.

The "misappropriation theory" holds that a person commits fraud "in connection with" a securities transaction, and thereby violates § 10(b) and Rule 10b-5, when he misappropriates confidential information for securities trading purposes, in breach of a duty owed to the source of the information. Under this theory, a fiduciary's undisclosed, self-serving use of a principal's information to purchase or sell securities, in breach of a duty of loyalty and confidentiality, defrauds the principal of the exclusive use of that information. In lieu of premising liability on a fiduciary relationship between company insider and purchaser or seller of the company's stock, the misappropriation theory premises liability on a fiduciary-turned-trader's deception of those who entrusted him with access to confidential information.

The two theories are complementary, each addressing efforts to capitalize on nonpublic information through the purchase or sale of securities. The classical theory targets a corporate insider's breach of duty to shareholders with whom the insider transacts; the misappropriation theory outlaws trading on the basis of nonpublic information by a corporate "outsider" in breach of a duty owed not to a trading party, but to the source of the information. The misappropriation theory is thus designed to protect the integrity of the securities markets against abuses by 'outsiders' to a corporation who have access to confidential information that will affect the corporation's security price when revealed, but who owe no fiduciary or other duty to that

corporation's shareholders.[5]

C

Chiarella: 445 U.S. 222 (1980)

According to the Eighth Circuit, three of our decisions [including *Chiarella v. United States*] reveal that § 10(b) liability cannot be predicated on a duty owed to the source of nonpublic information.

Chiarella involved securities trades by a printer employed at a shop that printed documents announcing corporate takeover bids. Deducing the names of target companies from documents he handled, the printer bought shares of the targets before takeover bids were announced, expecting (correctly) that the share prices would rise upon announcement. In these transactions, the printer did not disclose to the sellers of the securities (the target companies' shareholders) the nonpublic information on which he traded. For that trading, the printer was convicted of violating § 10(b) and Rule 10b-5. We reversed the Court of Appeals judgment that had affirmed the conviction.

The jury in *Chiarella* had been instructed that it could convict the defendant if he willfully failed to inform sellers of target company securities that he knew of a takeover bid that would increase the value of their shares. Emphasizing that the printer had no agency or other fiduciary relationship with the sellers, we held that liability could not be imposed on so broad a theory. There is under § 10(b), we explained, no "general duty between all participants in market transactions to forgo actions based on material, nonpublic information." Under established doctrine, we said, a duty to disclose or abstain from trading "arises from a specific relationship between two parties."

3 Privacy

Neil M. Richards, *Reconciling Data Privacy and the First Amendment*

52 UCLA L. Rev. 1149 (2005)

American law is replete with legal obligations placed on one person not to disclose information about another. While parties are of course generally free to create contracts that regulate their ability to

[5]The Government could not have prosecuted O'Hagan under the classical theory, for O'Hagan was not an "insider" of Pillsbury, the corporation in whose stock he traded. Although an "outsider" with respect to Pillsbury, O'Hagan had an intimate association with, and was found to have traded on confidential information from, Dorsey & Whitney, counsel to tender offer or Grand Met. Under the misappropriation theory, O'Hagan's securities trading does not escape Exchange Act sanction, as it would under Justice Thomas' dissenting view, simply because he was associated with, and gained nonpublic information from, the bidder, rather than the target.

disclose information, public and private law regimes impose numerous mandatory duties of confidentiality that go beyond the contract of the transacting parties to prevent the disclosure of information through speech or other means. For example, doctors, lawyers, and other professionals owe their clients duties of confidentiality, and can be punished through administrative and tort law remedies if they breach these duties by telling confidences to third parties. These duties of nondisclosure are buttressed by analogous evidentiary privileges, which give clients the ability to prevent their lawyers and doctors from speaking against their interests, presumably even when the content of the testimony would be quite newsworthy. Evidence law goes further and grants testimonial privileges to present and former spouses, psychotherapists, and others.

Restatement (Second) of Torts

§ 652B
Intrusion upon Seclusion

One who intentionally intrudes, physically or otherwise, upon the solitude or seclusion of another or his private affairs or concerns, is subject to liability to the other for invasion of his privacy, if the intrusion would be highly offensive to a reasonable person.

cmt. b The invasion may be by physical intrusion into a place in which the plaintiff has secluded himself, as when the defendant forces his way into the plaintiff's room in a hotel or insists over the plaintiff's objection in entering his home. It may also be by the use of the defendant's senses, with or without mechanical aids, to oversee or overhear the plaintiff's private affairs, as by looking into his upstairs windows with binoculars or tapping his telephone wires. It may be by some other form of investigation or examination into his private concerns, as by opening his private and personal mail, searching his safe or his wallet, examining his private bank account, or compelling him by a forged court order to permit an inspection of his personal documents.

cmt. c The defendant is subject to liability under the rule stated in this Section only when he has intruded into a private place, or has otherwise invaded a private seclusion that the plaintiff has thrown about his person or affairs. Thus there is no liability for the examination of a public record concerning the plaintiff, or of documents that the plaintiff is required to keep and make available for public inspection. Nor is there liability for observing him or even taking his photograph while he is walking on the public highway, since he is not then in seclusion, and his appearance is public and open to the public eye. Even in a public place, however, there may be some matters about the plaintiff, such as his underwear or lack of it, that are not exhibited to the

public gaze; and there may still be invasion of privacy when there is intrusion upon these matters.

§ 652D
Publicity Given to Private Life

One who gives publicity to a matter concerning the private life of another is subject to liability to the other for invasion of his privacy, if the matter publicized is of a kind that (a) would be highly offensive to a reasonable person, and (b) is not of legitimate concern to the public.

cmt. b *Private life*. – The rule stated in this Section applies only to publicity given to matters concerning the private, as distinguished from the public, life of the individual. There is no liability when the defendant merely gives further publicity to information about the plaintiff that is already public. Thus there is no liability for giving publicity to facts about the plaintiff's life that are matters of public record, such as the date of his birth, the fact of his marriage, his military record, the fact that he is admitted to the practice of medicine or is licensed to drive a taxicab, or the pleadings that he has filed in a lawsuit. On the other hand, if the record is one not open to public inspection, as in the case of income tax returns, it is not public, and there is an invasion of privacy when it is made so.

Similarly, there is no liability for giving further publicity to what the plaintiff himself leaves open to the public eye. Thus he normally cannot complain when his photograph is taken while he is walking down the public street and is published in the defendant's newspaper. Nor is his privacy invaded when the defendant gives publicity to a business or activity in which the plaintiff is engaged in dealing with the public. On the other hand, when a photograph is taken without the plaintiff's consent in a private place, or one already made is stolen from his home, the plaintiff's appearance that is made public when the picture appears in a newspaper is still a private matter, and his privacy is invaded.

Every individual has some phases of his life and his activities and some facts about himself that he does not expose to the public eye, but keeps entirely to himself or at most reveals only to his family or to close friends. Sexual relations, for example, are normally entirely private matters, as are family quarrels, many unpleasant or disgraceful or humiliating illnesses, most intimate personal letters, most details of a man's life in his home, and some of his past history that he would rather forget. When these intimate details of his life are spread before the public gaze in a manner highly offensive to the ordinary reasonable man, there is an actionable invasion of his privacy, unless the matter is one of legitimate public interest.

Neil M. Richards & Daniel J. Solove, *Privacy's Other Path: Recovering the Law of Confidentiality*
96 Geo. L.J. 123 (2007)

According to the oft-told legend, the right to privacy was born when Samuel Warren and Louis Brandeis penned *The Right to Privacy* in 1890. Spanning just twenty-eight pages in the Harvard Law Review, the article identified privacy as an implicit concept running throughout Anglo-American common law. Warren and Brandeis also based much of their argument for a right to privacy upon *Prince Albert v. Strange*, an English case from 1848.

Prince Albert: (1848) 41 Eng. Rep. 1171 (Ch.)

The dispute arose when Queen Victoria and her husband Albert, the Prince Consort, sued in equity to prevent the exhibition by William Strange of etchings that the royal couple had made of their family. They intended the etchings to be shared only with their family and close friends. On appeal, the Lord Chancellor agreed that Strange had no right to print and sell the etchings or the catalog. The Chancellor concluded that Prince Albert had a common law literary property right in the unpublished work – essentially, a common law copyright in unpublished works. *Prince Albert* suggested that intellectual property law could afford a remedy of restricting publication in unpublished works. Warren and Brandeis took this facet of the opinion and used it to turn *Prince Albert* from an opinion protecting intellectual property rights to a case protecting individual feelings and emotions from the pain of unwanted publicity.

Put this thought aside for now; common law literary property will return in the Copyright and Music chapters.

The story of privacy in Britain serves as an interesting contrast to the American experience. English law, like American law, also developed a law of "private" information. As in America, this English strand of the common law also traces its origins back to *Prince Albert*. Warren and Brandeis minimized the second basis for the judgment – breach of confidence. Because Victoria and Albert had circulated copies of the etchings only to a few friends, and had only sent copies outside such a circle to the printer for purpose of making these copies, the Lord Chancellor concluded that Strange's possession "must have originated in a breach of trust, confidence, or contract," most likely by a clerk to the royal printer. Disclosure represented a breach of confidence because a clerk to trusted professionals like printers and merchants owed the same implied contractual duty as his master "that he will not make public that which he learns in the execution of his duty as clerk." Thus, the printer's assistant had a duty to the Queen and the Prince to maintain the confidentiality of their etchings. The breach of this duty could be enforced against subsequent holders of the etchings and the plates used to make copies of them.

The English law of confidence is quite different from the Amer-

ican law of privacy. Consider the case of *Barrymore v. News Group Newspapers, Ltd.*. Actor Michael Barrymore had a homosexual affair with Paul Wincott, who worked for a company Barrymore jointly owned with his wife. Wincott provided details of the affair to a newspaper, including letters written by Barrymore. The court held that there was a breach of confidence: "When people enter into a personal relationship of this nature, they do not do so for the purpose of it subsequently being published in *The Sun*, or any other newspaper. The information about the relationship is for the relationship and not for a wider purpose."

Barrymore: [1997] F.S.R. 600 (Ch.) (U.K.)

The results in these cases would very likely be different under American privacy law. Courts might dismiss the cases, either concluding that the information was not private since others knew about it or finding that the information was "of legitimate concern to the public." Beyond the privacy torts, the American breach of confidentiality tort would have difficulty because only a few courts have held that it can make third parties liable for knowingly using information obtained via a breach. Moreover, the American tort currently has been applied only to a limited set of relationships; courts have not yet extended the tort to friends or lovers. In contrast, English law is much more open-ended in the relationships it protects.

Florida v. Riley
488 U.S. 445 (1989)

This case originated with an anonymous tip to the Pasco County Sheriff's office that marijuana was being grown on respondent's property. When an investigating officer discovered that he could not see the contents of [respondent's] greenhouse from the road, he circled twice over respondent's property in a helicopter at the height of 400 feet. With his naked eye, he was able to see through the openings in the roof and one or more of the open sides of the greenhouse and to identify what he thought was marijuana growing in the structure. A warrant was obtained based on these observations, and the ensuing search revealed marijuana growing in the greenhouse. Respondent was charged with possession of marijuana under Florida law. The trial court granted his motion to suppress [for violating the Fourth Amendment's prohibition on "unreasonable searches and seizures."]

Ciraolo: 476 U.S. 207 (1986)

California v. Ciraolo controls this case. There, acting on a tip, the police inspected the backyard of a particular house while flying in a fixed-wing aircraft at 1,000 feet. With the naked eye the officers saw what they concluded was marijuana growing in the yard. A search warrant was obtained on the strength of this airborne inspection, and marijuana plants were found.

We recognized that the yard was within the curtilage of the house, that a fence shielded the yard from observation from the street, and

that the occupant had a subjective expectation of privacy. We held, however, that such an expectation was not reasonable and not one that society is prepared to honor. Our reasoning was that the home and its curtilage are not necessarily protected from inspection that involves no physical invasion. What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. As a general proposition, the police may see what may be seen from a public vantage point where they have a right to be, Thus the police, like the public, would have been free to inspect the backyard garden from the street if their view had been unobstructed. They were likewise free to inspect the yard from the vantage point of an aircraft flying in the navigable airspace as this plane was.

We arrive at the same conclusion in the present case.

Kyllo v. United States
533 U.S. 27 (2001)

This case presents the question whether the use of a thermal-imaging device aimed at a private home from a public street to detect relative amounts of heat within the home constitutes a "search" within the meaning of the Fourth Amendment.

In 1991 Agent William Elliott of the United States Department of the Interior came to suspect that marijuana was being grown in the home belonging to petitioner Danny Kyllo. Indoor marijuana growth typically requires high-intensity lamps. In order to determine whether an amount of heat was emanating from petitioner's home consistent with the use of such lamps, at 3:20 a.m. on January 16, 1992, Agent Elliott and Dan Haas used an Agema Thermovision 210 thermal imager to scan the triplex. Thermal imagers detect infrared radiation, which virtually all objects emit but which is not visible to the naked eye. The imager converts radiation into images based on relative warmth—black is cool, white is hot, shades of gray connote relative differences; in that respect, it operates somewhat like a video camera showing heat images. The scan of Kyllo's home took only a few minutes and was performed from the passenger seat of Agent Elliott's vehicle across the street from the front of the house and also from the street in back of the house. The scan showed that the roof over the garage and a side wall of petitioner's home were relatively hot compared to the rest of the home and substantially warmer than neighboring homes in the triplex. Agent Elliott concluded that petitioner was using halide lights to grow marijuana in his house, which indeed he was. Based on tips from informants, utility bills, and the thermal imaging, a Federal Magistrate Judge issued a warrant authorizing a search of petitioner's home, and the agents found an indoor growing operation involving more than 100 plants.

One might think that examining the portion of a house that is in plain public view, while it is a "search" despite the absence of trespass, is not an "unreasonable" one under the Fourth Amendment. But in fact we have held that visual observation is no "search" at all. In assessing when a search is not a search, we have applied somewhat in reverse the principle first enunciated in *Katz v. United States*. *Katz* involved eavesdropping by means of an electronic listening device placed on the outside of a telephone booth – a location not within the catalog ("persons, houses, papers, and effects") that the Fourth Amendment protects against unreasonable searches. We held that the Fourth Amendment nonetheless protected Katz from the warrantless eavesdropping because he "justifiably relied" upon the privacy of the telephone booth. As Justice Harlan's oft-quoted concurrence described it, a Fourth Amendment search occurs when the government violates a subjective expectation of privacy that society recognizes as reasonable. We have applied the test on two different occasions in holding that aerial surveillance of private homes and surrounding areas does not constitute a search. *Ciraolo*; *Florida v. Riley*.

Katz: 389 U.S. 347 (1967)

We think that obtaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without physical intrusion into a constitutionally protected area, constitutes a search – at least where (as here) the technology in question is not in general public use. This assures preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted. On the basis of this criterion, the information obtained by the thermal imager in this case was the product of a search.

The Government also contends that the thermal imaging was constitutional because it did not "detect private activities occurring in private areas," It points out that in *Dow Chemical Co. v. United States* we observed that the enhanced aerial photography did not reveal any "intimate details." *Dow Chemical*, however, involved enhanced aerial photography of an industrial complex, which does not share the Fourth Amendment sanctity of the home. The Fourth Amendment's protection of the home has never been tied to measurement of the quality or quantity of information obtained. In *Silverman v. United States*, for example, we made clear that any physical invasion of the structure of the home, "by even a fraction of an inch," was too much, and there is certainly no exception to the warrant requirement for the officer who barely cracks open the front door and sees nothing but the nonintimate rug on the vestibule floor. In the home, our cases show, all details are intimate details, because the entire area is held

Dow Chemical: 476 U.S. 227 (1986)

Silverman: 365 U.S. 505 (1961)

safe from prying government eyes.

Justice Stevens, dissenting:

There is, in my judgment, a distinction of constitutional magnitude between "through-the-wall surveillance" that gives the observer or listener direct access to information in a private area, on the one hand, and the thought processes used to draw inferences from information in the public domain, on the other hand. The Court has crafted a rule that purports to deal with direct observations of the inside of the home, but the case before us merely involves indirect deductions from "off-the-wall" surveillance, that is, observations of the exterior of the home.

4 Government Secrets

Freedom of Information Act

5 U.S.C. § 552
Public information; agency rules, opinions, orders, records, and proceedings

(a) Each agency shall make available to the public information as follows:

(3) (A) … each agency, upon any request for records which (i) reasonably describes such records and (ii) is made in accordance with published rules stating the time, place, fees (if any), and procedures to be followed, shall make the records promptly available to any person.

(b) This section does not apply to matters that are –

(1) (A) specifically authorized under criteria established by an Executive order to be kept secret in the interest of national defense or foreign policy and (B) are in fact properly classified pursuant to such Executive order;

(2) related solely to the internal personnel rules and practices of an agency;

(3) specifically exempted from disclosure by statute …

(4) trade secrets and commercial or financial information obtained from a person and privileged or confidential;

(5) inter-agency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the agency;

(6) personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy;

(7) records or information compiled for law enforcement purposes, but only to the extent that the production of such

law enforcement records or information (A) could reasonably be expected to interfere with enforcement proceedings, (B) would deprive a person of a right to a fair trial or an impartial adjudication, (C) could reasonably be expected to constitute an unwarranted invasion of personal privacy, (D) could reasonably be expected to disclose the identity of a confidential source … (E) would disclose techniques and procedures for law enforcement investigations or prosecutions … if such disclosure could reasonably be expected to risk circumvention of the law, or (F) could reasonably be expected to endanger the life or physical safety of any individual;

(8) contained in or related to examination, operating, or condition reports prepared by, on behalf of, or for the use of an agency responsible for the regulation or supervision of financial institutions; or

(9) geological and geophysical information and data, including maps, concerning wells.

Congressional Research Service, *The Protection of Classified Information: The Legal Framework* (2013)

Congress has directed the President to establish procedures governing the access to classified material so that no person can gain such access without having undergone a background check. With the authority to determine classification standards vested in the President, these standards tend to change whenever a new administration takes control of the White House.

The present standards for classifying and declassifying information were last amended on December 29, 2009. Under these standards, the President, Vice President, agency heads, and any other officials designated by the President may classify information upon a determination that the unauthorized disclosure of such information could reasonably be expected to damage national security. Such information must be owned by, produced by, or under the control of the federal government, and must concern one of the following:

Exec. Order No. 13526, 3 C.F.R. 298 (2009).

- military plans, weapons systems, or operations;
- foreign government information;
- intelligence activities, intelligence sources/methods, cryptology;
- foreign relations or foreign activities of the United States, including confidential sources;
- scientific, technological, or economic matters relating to na-

tional security;

- federal programs for safeguarding nuclear materials or facilities;
- vulnerabilities or capabilities of national security systems; or
- weapons of mass destruction.

Information may be classified at one of three levels based on the amount of danger that its unauthorized disclosure could reasonably be expected to cause to national security. Information is classified as "Top Secret" if its unauthorized disclosure could reasonably be expected to cause "exceptionally grave damage" to national security. The standard for "Secret" information is "serious damage" to national security, while for "confidential" information the standard is "damage" to national security. Significantly, for each level, the original classifying officer must identify or describe the specific danger potentially presented by the information's disclosure. In case of significant doubt as to the need to classify information or the level of classification appropriate, the information is to remain unclassified or be classified at the lowest level of protection considered appropriate.

The officer who originally classifies the information establishes a date for declassification based upon the expected duration of the information's sensitivity. If the office cannot set an earlier declassification date, then the information must be marked for declassification in 10 years' time or 25 years, depending on the sensitivity of the information. The deadline for declassification can be extended if the threat to national security still exists.

Classified information is required to be declassified "as soon as it no longer meets the standards for classification." The original classifying agency has the authority to declassify information when the public interest in disclosure outweighs the need to protect that information. On December 31, 2006, and every year thereafter, all information that has been classified for 25 years or longer and has been determined to have "permanent historical value" under Title 44 of the U.S. Code will be automatically declassified, although agency heads can exempt from this requirement classified information that continues to be sensitive in a variety of specific areas.

Access to classified information is generally limited to those who demonstrate their eligibility to the relevant agency head, sign a nondisclosure agreement, and have a need to know the information. The need-to-know requirement can be waived, however, for former Presidents and Vice Presidents, historical researchers, and former policy-making officials who were appointed by the President or Vice President. The information being accessed may not be removed from the controlling agency's premises without permission. Each agency

is required to establish systems for controlling the distribution of classified information.

Under E.O. 13526, each respective agency is responsible for maintaining control over classified information it originates and is responsible for establishing uniform procedures to protect classified information and automated information systems in which classified information is stored or transmitted. Agencies that receive information classified elsewhere are not permitted to transfer the information further without approval from the classifying agency. Persons authorized to disseminate classified information outside the executive branch are required to ensure it receives protection equivalent to those required internally.

Generally, federal law prescribes a prison sentence of no more than a year and/or a $1,000 fine for officers and employees of the federal government who knowingly remove classified material without the authority to do so and with the intention of keeping that material at an unauthorized location. Stiffer penalties – fines of up to $10,000 and imprisonment for up to 10 years – attach when a federal employee transmits classified information to anyone that the employee has reason to believe is an agent of a foreign government. A fine and a 10-year prison term also await anyone, government employee or not, who publishes, makes available to an unauthorized person, or otherwise uses to the United States' detriment classified information regarding the codes, cryptography, and communications intelligence utilized by the United States or a foreign government. Finally, the disclosure of classified information that discloses any information identifying a covert agent, when done intentionally by a person with authorized access to such identifying information, is punishable by imprisonment for up to 15 years. A similar disclosure by one who learns the identity of a covert agent as a result of having authorized access to classified information is punishable by not more than 10 years' imprisonment. Under the same provision, a person who undertakes a "pattern of activities intended to identify and expose covert agents" with reason to believe such activities would impair U.S. foreign intelligence activities, and who then discloses the identities uncovered as a result is subject to three years' imprisonment, whether or not violator has access to classified information.

In addition to the criminal penalties outlined above, the executive branch employs numerous means of deterring unauthorized disclosures by government personnel using administrative measures based on terms of employment contracts. The agency may impose disciplinary action or revoke a person's security clearance. The revocation of a security clearance is usually not reviewable by the Merit System Protection Board and may mean the loss of government employment. Government employees may be subject to monetary penalties for dis-

closing classified information. Violators of the Espionage Act and the Atomic Energy Act provisions may be subject to loss of their retirement pay.

Agencies also rely on contractual agreements with employees, who typically must sign non-disclosure agreements prior to obtaining access to classified information, sometimes agreeing to submit all materials that the employee desires to publish to a review by the agency. The Supreme Court enforced such a contract against a former employee of the Central Intelligence Agency (CIA), upholding the government's imposition of a constructive trust on the profits of a book the employee sought to publish without first submitting it to CIA for review.

Snepp v. United States, 444 U.S. 507 (1980)

Under some circumstances, the government can also use injunctions to prevent disclosures of information. The courts have generally upheld injunctions against former employees' publishing information they learned through access to classified information. The Supreme Court also upheld the State Department's revocation of passports for overseas travel by persons planning to expose U.S. covert intelligence agents, despite the fact that the purpose was to disrupt U.S. intelligence activities rather than to assist a foreign government.

Haig v. Agee, 453 U.S. 280 (1981).

As noted above, E.O. 13526 sets the official procedures for the declassification of information. Once information is declassified, it may be released to persons without a security clearance. Leaks, by contrast, might be defined as the release of classified information to persons without a security clearance, typically journalists. Recent high-profile leaks of information regarding sensitive covert operations in news stories that seemed to some to portray the Obama Administration in a favorable light raised questions regarding the practice of "instant declassification," or whether disclosure of classified information to journalists may ever be said to be an "authorized disclosure" by a senior official.

The processes for declassification set forth in E.O. 13526 seem to presuppose that agencies and classifying officials will not have any need or desire to disclose classified information in their possession other than to comply with the regulations. Yet it has long been noted that there seems to be an informal process for "instant declassification" of information whose release to the public serves an immediate need.

As a practical matter, there is little to stop agency heads and other high-ranking officials from releasing classified information to persons without a security clearance when it is seen as suiting government needs. The Attorney General has prosecutorial discretion to choose which leaks to prosecute. If in fact a case can be made that a senior official has made or authorized the disclosure of classified

information, successful prosecution under current laws may be impossible because the scienter requirement (i.e., guilty state of mind) is not likely to be met.

Executive branch policy appears to treat an official disclosure as a declassifying event, while non- attributed disclosures have no effect on the classification status of the information. For example, the Department of Defense instructs agency officials, in the event that classified information appears in the media, to neither confirm nor deny the accuracy of the information.