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Application of Trade Secret Law to New Technology—Unwinding the Tangled Web

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APPLICATION OF TRADE SECRET LAW TO NEW TECHNOLOGY—UNWINDING THE TANGLED WEB

Stephen J. Davidson† Robert L. DeMay††

Commentators have questioned whether trade secret law is adequate to protect innovative technologies. This attitude stems from seemingly inconsistent judicial opinions in the application of trade secret law to new technology. The authors suggest that inconsistent results are the product of courts' separate treatment of the "property" and "misappropriation" aspects of trade secret law. To remedy this inconsistency and render trade secret law a reasonably predictable protection for new technologies, the authors propose that in evaluating trade secret cases, courts should employ a framework which recognizes and facilitates the balance of policies underlying trade secret law. INTRODUCTION 580THE POLICY INTERESTS UNDERLYING TRADE SECRET T 582ARE COURTS CAPABLE OF UNDERSTANDING II. TECHNOLOGY WELL ENOUGH TO RESOLVE TECHNICAL TRADE SECRET CLAIMS? 586 THE EXISTING FRAMEWORK OF TRADE SECRET LAW. 590 III. Α. The First Question—Does a Trade Secret Exist?..... 591 The Second Question—Has There Been a R. Misappropriation?..... 593The Third Question—What is the Appropriate С. *Remedy*? 594 PROBLEMS IN APPLYING TRADE SECRET LAW 595 IV PROPOSED FRAMEWORK FOR APPLYING TRADE V. Secret Law 604 Does the Plaintiff Have a Right to Trade Secret *A*.

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INTRODUCTION

The development of new technologies and their applications is a high cost, high risk proposition. Such industry can thrive, therefore, only in a legal climate which will allow the cost and risk of research and development to be shared, and which provides the protections necessary to ensure that those investing their resources will have a fair opportunity to reap the full benefits of their entrepreneurial activities.

As a matter of federal constitutional law, Congress is charged with promoting the progress of science and the useful arts by securing to authors and inventors the exclusive right to their respective writings and discoveries for a limited period of time.¹ Congress has done so principally by enacting the patent and copyright laws.² Both the patent and copyright systems use uniform standards to promote invention while preserving free competition and the spread of information.³ Within the past few years, Congress has acted to directly encourage the sharing of research and development costs and risks⁴ and, in limited areas, has also enacted legislation aimed specifically at protecting proprietary interests in particular technologies.⁵

Detailed statutory systems with uniform and relatively rigid standards have one significant shortcoming. They lack the flexibility which is generally necessary to keep pace with technological advance. As a result, courts have repeatedly found

^{1.} U.S. CONST. art. I, § 8, cl. 8.

^{2.} The first federal patent and copyright laws were enacted in 1790, Act of Apr. 10, 1790, ch. VII, 1 Stat. 109. In the 1950s, Congress made a total revision of the nation's patent laws. Act of July 19, 1952, Pub. L. No. 593, ch. 950, 66 Stat. 792 (codified as amended in scattered sections of 35 U.S.C.); *see also* Semiconductor Chip Protection Act of 1984, Pub. L. No. 98-620, tit. III, 98 Stat. 3348 (to be codified at 17 U.S.C. §§ 901-914) (Supp. II 1984) [hereinafter cited as the SCPA of 1984]; The Copyright Revision Act of 1976, Pub. L. No. 94-553, tit. I, 90 Stat. 2541-2602 (codified as amended in scattered sections of 17 U.S.C.).

^{3.} See Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225, 230-31 (1964).

^{4.} See National Cooperative Research Act of 1984, Pub. L. No. 98-462, 98 Stat. 1815 (to be codified at 15 U.S.C. §§ 4301-4305).

^{5.} See SCPA of 1984, supra note 2.

themselves unable to afford protection under the patent and copyright laws to those at the vanguard of developing new and valuable technologies.⁶ Protection of new technology under the patent and copyright laws has often had to await amendment of those laws by the slow process of congressional deliberation.⁷ Experience thus shows that Congress cannot provide the full protection necessary.

Computer software provides an excellent case study. The electronic digital computer made its debut in 1946, and shortly thereafter, came the advent of computer software. The importance of this new technology was immediately apparent, and by the mid-1960's, computer software was becoming a valuable commodity. By the mid-1970's, it was clear that computer software, not hardware, was where many of the most valuable contributions to the art would occur. It was not until 1980, however, that Congress amended the copyright laws to extend coverage to computer programs.⁸ Congress has not yet amended the patent laws to define the extent to which computer software may be patentable subject matter.⁹

Although there was virtually no federal law to protect computer software against misappropriation by competing interests prior to 1980, state trade secret laws did serve reasonably

8. Act of Dec. 12, 1980, Pub. L. No. 96-517, § 10(a)-(6), 90 Stat. 2541, 2565 (codified at 17 U.S.C. §§ 101, 117 (1982)).

^{6.} Cf. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 421 (1984) (unsuccessful attempt to impose liability for copyright infringement upon distributor of video cassette recorders). Copyright protection does not extend to ideas, procedures, processes, systems, methods of operation, concepts, principles or discoveries embodied in the copyrighted work. 17 U.S.C. § 102(b). Issuance of a patent does not guarantee validity and requires disclosure of the underlying discovery. 35 U.S.C. § 112.

^{7.} Cf. Sony, 464 U.S. at 456. For a review of the historical development of copyright law, see Apple Computer, Inc. v. Formula Int'l, Inc., 562 F. Supp. 775, 779 (C.D. Cal. 1983). In the view of some commentators, such enactments may even come too late to serve the purpose for which they are most needed. See also Raskind, Reverse Engineering, Unfair Competition and Fair Use, 70 MINN. L. REV. 385, 414-15 (1985) (implying that the SCPA of 1984 was developed too late to shield domestic producers from the Japanese capture of the Random Access Memory (RAM) market).

^{9.} Patentability has instead been left to the courts. The United States Supreme Court's acceptance of the patentability of computer software began in 1981. See Diamond v. Diehr, 450 U.S. 175 (1981); U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE 2100-2 (5th ed. 1983) (section 2110, Patentable Subject Matter - Mathematical, Algorithms or Computer Programs, summarizes case law on software patentability and provides some guidance).

well to protect proprietary interests in computer software.¹⁰ In fact, trade secret law has often proven to be the *only* body of intellectual property law available to sort out competing public and private interests and thereby define the level of protection to be afforded new types of technical information. While one can expect this to be equally true in the future, some commentators have questioned whether trade secret law is adequate to the task.¹¹

This Article addresses the ability of trade secret law to balance competing public and private interests in newly developed technical information. First, it reviews the policy interests underlying trade secret law. Second, the Article discusses the capability of courts to understand new technology well enough to resolve technical trade secret claims. Third, the existing framework of trade secret law is reviewed, followed by an examination of problems in the application of trade secret law under that framework. Finally, the Article proposes a new framework for applying trade secret law. The authors conclude that trade secret law *can* serve as a flexible and yet reasonably uniform and predictable means of protecting legitimate interests in new technology, *provided* that courts recognize and maintain the delicate balance of policies underlying the law of trade secrets.

I. THE POLICY INTERESTS UNDERLYING TRADE SECRET LAW

Just what are the policy interests sought to be served by the law of trade secrets? The comments to the *Restatement (First) of Torts* suggest that the *sole* purpose of trade secret law is to protect against breach of faith and the use of reprehensible means of learning another's secret.¹² This view has also been espoused by some courts.¹³ In order to fully appreciate the sub-

^{10.} See, e.g., Universal Computing Co. v. Lykes-Youngstown Corp., 504 F.2d 518 (5th Cir. 1974); Com-Share, Inc. v. Computer Complex, Inc., 338 F. Supp. 1229 (E.D. Mich. 1971), aff d 458 F.2d 1341 (6th Cir. 1972); Structural Dynamics Research Corp. v. Engineering Mechanics Research Corp., 401 F. Supp. 1102 (E.D. Mich. 1975); Belth v. Insurance Dep't, 95 Misc. 2d 18, 406 N.Y.S.2d 649 (1977).

^{11.} See, e.g., Note, Balancing Employers' Trade Secret Interests in High-Technology Products Against Employees' Rights and Public Interests In Minnesota, 69 MINN. L. REV. 984, 1005 (1985).

^{12.} RESTATEMENT (FIRST) OF TORTS § 757 comment b (1939).

^{13.} See Jet Spray Cooler, Inc. v. Crampton, 377 Mass. 159, 165, 385 N.E.2d 1349, 1354 (1979); Jostens, Inc. v. National Computer Sys., Inc., 318 N.W.2d 691, 701 (Minn. 1982).

tle intricacies of trade secret law, however, one must understand that there are several, often conflicting policies that come into play. These policies have shaped the law concerning not only the type of information which can qualify as a trade secret, but also the type of conduct which will be deemed misappropriation.

While the Restatement expressly rejects the notion that encouraging invention is one of the interests behind trade secret law,¹⁴ its trade secret "test" implicitly recognizes that very policy. Under the Restatement, certain types of confidential information cannot qualify as trade secrets. Even though treated as confidential, information relating to single or ephemeral events in the conduct of a business cannot constitute trade secrets. Examples include the amount or other terms of a secret bid for a contract, the salary of certain employees, the security investments made or contemplated, or the date fixed for the announcement of a new policy or for bringing out a new model.¹⁵ In order to qualify as a trade secret under the *Restatement*, information must be in the nature of a "formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain advantage over competitors which do not know or use it."16

The factors suggested by the *Restatement* for evaluating whether secret information qualifies for trade secret protection specifically involve considerations which encourage invention.¹⁷ The only rational basis for distinguishing between trade secret information and other confidential business information is that the latter does not involve effort, expense, or innovation. Thus, as stated by the United States Supreme Court in *Kewanee Oil Co. v. Bicron Corp.*, ¹⁸ "[t]he maintenance of standards of commercial ethics *and* the encouragement of invention are the broadly stated policies behind trade secret

^{14.} RESTATEMENT OF TORTS § 757 comment b.

^{15.} Id.

^{16.} Id.

^{17.} Id. In addition to factors which pertain to secrecy, the Restatement (First) of Torts suggests that the following factors should also be considered in deciding whether information is a plaintiff's trade secret:

⁽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; [and] (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

Id.

^{18. 416} U.S. 470 (1974).

law."¹⁹

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Like the patent and copyright laws, trade secret law is not primarily designed to provide a special private benefit. Reward to the owner is of secondary consideration.²⁰ The limited grant of monopoly under the copyright and patent laws²¹ is premised principally upon a belief that "[t]he productive effort thereby fostered will have a positive effect on society through the introduction of new products and processes of manufacture into the economy, and the emanations by way of increased employment and better lives for our citizens."²² The ultimate objectives of trade secret protection against industrial espionage and breach of confidence are substantially the same.²³

Unlike the patent and copyright laws, however, trade secret law does not purport to grant even the most enterprising inventor a monopoly in his trade secret. The *only* protections afforded a trade secret owner are those against acquisition by improper means or breach of confidence. Trade secret law does not prohibit either independent development or acquisition by *proper* means.²⁴ Trade secret law seeks to accomplish, by maintaining commercial ethics, that which the copyright and patent laws seek to accomplish by granting limited monop-

23. See id. at 481-82. Cf. Cherne Indus. Inc. v. Grounds & Assoc. Inc., 278 N.W.2d 81, 94 (Minn. 1979). This latter proposition is illustrated by the fact that, at least under the Restatement (First) of Torts view, trade secret protection will not be extended to information that is not used even if it would otherwise qualify. The RE-STATEMENT (FIRST) OF TORTS defines a trade secret as "any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it." RESTATEMENT (FIRST) OF TORTS § 757 comment b (emphasis added). If the information is not used, there can be no benefit to society. There is arguably no public policy reason to protect the secrecy of such unused information, since benefit to the public could only result from disclosure or use. But see Jet Spray, 377 Mass. 159, 385 N.E.2d 1349, 1358 n.13, where although the court found that the plaintiff had never made any use of the information in question, it did not consider the issue of "use" as required by the Restatement's definition.

24. See Kewanee, 416 U.S. at 475-76. Since that which is in the public domain cannot be removed by action of the States, *id.* at 481, it is wholly permissible to utilize proper means to derive another's trade secret by analysis of that which the trade secret owner makes available to the public, including products from which the trade secret may be reverse engineered. *Id.* at 476. Reverse engineering means starting with a known product and working backward to determine the process which aided in its development. *Id.*

^{19.} Id. at 481 (emphasis supplied).

^{20.} Compare Sony, 464 U.S. at 429 (patent and copyright) with Jostens, 318 N.W.2d at 701 (trade secret).

^{21.} See Sony, 464 U.S. at 429.

^{22.} Kewanee Oil Co. v. Bicron Corp., 416 U.S. at 480 (1974).

olies. Thus, without granting any monopoly, but in furtherance of the same general objectives as those underlying the monopolies afforded by the patent and copyright laws, the law of trade secrets seeks to maintain a balance between a developer's interest in the exploitation of his own discovery, on the one hand, and society's competing interest in the free flow of ideas, information, and commerce on the other.²⁵

Balanced against a developer's interest in the exploitation of his discovery, for example, is the generally accepted principle that "no restrictions should fetter an employee's right to apply to his own best advantage the skills and knowledge acquired by the overall experience of his previous employment."²⁶ This is so even to the extent that such knowledge and skill include "techniques which are . . . 'skillful variations of general processes known to the particular trade.'"²⁷ The "talent or expertise" of employees also does not come within the scope of trade secret protection.²⁸ An employee's experience and skills, to the extent derived from generally known sources, are not considered confidential.²⁹

Only knowledge gained at an employer's expense, which takes on the characteristics of a trade secret, and which would be unfair for the employee to use elsewhere, is deemed confidential and is not to be disclosed or used.³⁰ Where the information in question does not qualify as a trade secret, an employer cannot prevent or limit a former employee's use of such information, even by contract.³¹ If he attempts to do so without a good faith basis for claiming that the information is a trade secret, he may run afoul of the federal antitrust laws and risk potential liability in a trade secret, courts have generally

^{25.} See Sony, 464 U.S. at 429.

^{26.} Jim W. Miller Constr., Inc. v. Schaefer, 298 N.W.2d 455, 459 (Minn. 1980) (*quoting* Reed, Roberts Assoc., Inc. v. Strauman, 40 N.Y.2d 303, 307, 353 N.E.2d 590, 593, 386 N.Y.S.2d 677, 680 (1976)).

^{27.} Id.

^{28.} Electro-Craft Corp. v. Controlled Motion, Inc., 332 N.W.2d 890, 900 (Minn. 1983).

^{29.} Jostens, 318 N.W.2d at 701-02.

^{30.} Id. at 702.

^{31.} Dynamics Research Corp. v. Analytic Sciences Corp., 400 N.E.2d 1274, 1288 (Mass. App. Ct. 1980); *Miller*, 298 N.W.2d at 459. *But see* Saliterman v. Finney, 361 N.W.2d 175, 177 (Minn. Ct. App. 1985).

^{32.} CVD, Inc. v. Raytheon Co., 769 F.2d 842, 850-51 (1st Cir. 1985), cert. filed Dec. 18, 1985.

recognized that the policies favoring free competition and employee mobility require that the employer's injunctive relief be limited in scope so as to prevent a former employee's use of only the trade secret.³³ Most courts have also recognized that all forms of relief should relate only to the length of time it would have taken to lawfully duplicate the trade secret by independent development or reverse engineering.³⁴

It should be recognized, therefore, that there are several public policy interests sought to be served, in balance, by the law of trade secrets. Some of them are competing, and others are closely interrelated. Each case should include consideration and a careful balancing of *all* the pertinent policy interests by thorough analysis of the particular facts and circumstances of the case. This requires not only that the court understand the technology and the particular industry well enough to appreciate and properly decide the merits of the case, but also that the legal framework be applied in such a way as to allow a consideration of the pertinent policy issues. The remainder of this Article will discuss the capacity of the courts to deal with technical subject matter and the analytical framework under which they should do so in trade secret cases.

II. ARE COURTS CAPABLE OF UNDERSTANDING TECHNOLOGY WELL ENOUGH TO RESOLVE TECHNICAL TRADE SECRET CLAIMS?

To the extent that proper disposition of trade secret cases requires an understanding of technical subject matter or of a particular industry, the court system is adequately equipped to develop and digest the evidence necessary to achieve that end. A sufficient comprehension of the technology can be provided if the litigants will only take advantage of the wide variety of available educational techniques.

Litigants have educated judges and juries using techniques such as expert testimony, tours, and demonstrations. For example, in *Jostens, Inc. v. National Computer Systems, Inc.*,³⁵ the court was afforded tours of the parties' technical facilities,

^{33.} See E.W. Bliss Co. v. Struthers-Dunn, Inc., 408 F.2d 1108, 1113-16 (8th Cir. 1969); By-Beek Co. v. Printed Cellophane Tape Co., 1958 Trade Cas. (CCH) ¶ 69,144 (Cal. D.C. App. 1958).

^{34.} See infra text accompanying notes 200-01.

^{35. 318} N.W.2d 691 (Minn. 1982).

demonstrations of the technology, and detailed explanations by expert witnesses of what computer programs are, how they are developed, and how they function. This was accompanied by slides, video tape, and film presentations to depict the technology at work. SCM Corp. v. Xerox Corp.,³⁶ though not a trade secret case, involved technical subject matter. In SCM, Xerox Corporation rented a warehouse near the courthouse, assembled, in chronological order, virtually every Xerox copying machine ever marketed, and then provided the court and jury with a guided, educational tour of this museum of Xerox history.

Judges and juries do find it difficult to properly apply the principles of trade secret law when plaintiffs use a "black box" approach³⁷ to technical trade secret litigation. This will most often occur at the pleading stage, since plaintiff's management and counsel themselves may not understand the technology sufficiently well to determine specifically what the plaintiff's trade secret is,³⁸ and it is particularly likely to occur in a case where a defendant ex-employee was the only one intimately familiar with the plaintiff's technical information and its development.³⁹ By the time discovery has framed the issues for trial, however, the plaintiff should be able to precisely define the information which it claims as its trade secret. Failure to do so should, and generally will, be perceived as an effort to play upon a court's lack of technical sophistication and obfuscate the fact that the plaintiff has no trade secret. Courts have

39. See, e.g., Jostens, 318 N.W.2d at 694-97 (discussing plaintiff's former engineer's involvement with plaintiff's computer system).

^{36. 463} F. Supp. 983 (D. Conn. 1978), cert. denied, 455 U.S. 1016, rehearing denied, 456 U.S. 985.

^{37.} That is, suggesting that somewhere within their products or processes are unique technical elements which are far too complex for judges and juries to understand, but which are of great value by virtue of their very complexity.

^{38.} See Larson, Modem Operandi: In High-Tech Industry, New Firms Often Get Fast Trip to Courtroom, Wall St. J., Aug. 14, 1984, at 1, col. 6. Former employees of electronic companies who compete with their former employers have a greater than fifty percent chance of being sued for allegedly stealing trade secrets. Id. at 14. "Santa Clara (California, Silicon Valley) is probably the hotbed for this type of suit." Id. at 1. The incredible cost of developing a new semiconductor technology motivates a former employer to sue a new company of former employees for allegedly stealing trade secrets. Id. "The law permits companies to sue start-ups (new companies of former employees) even on the suspicion that trade secrets have been stolen." Id. In one such suit, the president of the plaintiff company was asked in a deposition what trade secrets were stolen. The plaintiff's president replied that he did not know what was stolen since he did not know what the defendant company was doing. Id.

properly become increasingly hostile to claims involving vaguely defined trade secrets.⁴⁰

There are numerous opinions by both state and federal courts which reflect a sound appreciation of technical subject matter and a sufficient understanding of the technology to arrive at a proper decision on the merits. Cases involving software and other computer-related technology are illustrative. Courts have amply demonstrated their ability to understand the technical subject matter by explaining such components of data processing as the central processing unit,⁴¹ a computer program,⁴² a subroutine,⁴³ an application program,⁴⁴ an operating system,⁴⁵ levels of computer languages,⁴⁶ and source and object code.⁴⁷

41. Apple Computer, Inc. v. Franklin Computer Corp., 545 F. Supp. 812 (E.D. Pa. 1982), rev'd in part, remanded in part, 714 F.2d 1240, 1243 (3d Cir. 1983), cert. dismissed, 464 U.S. 1033 (1984). "[A]ll computers . . . have a central processing unit (CPU) which is the integrated circuit that executes programs. In lay terms, the CPU does the work it is instructed to do. Those instructions are contained on computer programs." *Id.*

42. Apple, 545 F. Supp. at 813-14. "A computer program is a set of serial instructions that directs the computer to perform certain tasks." Id.

43. Jostens, 318 N.W.2d at 702 n.8.

[A] program or set of instructions with a beginning and a defined end, which can be invoked at its beginning and will always return [at] its end after performing a given function between those two points is called a "routine" or "sub-routine." An example is a "square root routine" which will calculate the square root of a number when it is started and will produce the answer when it returns at its end.

Id.

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44. Apple, 714 F.2d at 1243.

Computer programs can be categorized by function as either application programs or operating system programs. Application programs usually perform a specific task for the computer user, such as word processing, checkbook balancing, or playing a game. In contrast, operating system programs generally manage the internal functions of the computer or facilitate use of application programs.

Id.

45. Apple, 545 F. Supp. at 814. "The operating system is configured to satisfy the requirements of the physical environment of the computer, especially the structure of the CPU, and to provide easy compatibility with software written in the general marketplace and with peripherals made by other manufacturers." *Id.*

46. Apple, 714 F.2d at 1243.

There are three levels of computer language in which computer programs may be written. High level language, such as the commonly used BASIC or FORTRAN, uses English words and symbols, and is relatively easy to learn and understand A somewhat lower level language is assembly language, which consists of alphanumeric labels (e.g., "ADC" means "add with

^{40.} See, e.g., Electro-Craft, 332 N.W.2d at 897; Jostens, 318 N.W.2d at 704 (without a proven trade secret, there can be no action for misappropriation); E.W. Bliss Co., 408 F.2d at 1116 (discovery order requiring specificity of allegedly stolen trade secrets).

The Minnesota Supreme Court demonstrated its ability to deal with complex technical subject matter in *Jostens*, where the plaintiff's trade secret claims focused primarily upon an application program developed for it by an independent contractor named Adage.⁴⁸ Jostens asserted that it was entitled to claim ownership of any trade secrets embodied within the application program which were not generally known or readily ascertainable.⁴⁹ While recognizing that "unique principles, engineering, logic and coherence in computer software may be accorded trade secret status"⁵⁰ and that "generally known computer elements may gain trade secret protection from the nature of their combination,"⁵¹ the court denied Jostens' trade secret claim as to the application program.⁵²

The evidence showed that Adage used a structured programming practice, putting together small, self-contained routines and using them as building blocks for new application packages,⁵³ and that Adage followed the industry practice of maintaining a library of previously-written software routines for use in creating new programs.⁵⁴ Jostens' application software package was assembled by Adage's modified use of two application software systems which were written for prior customers.⁵⁵ The trial court found that Jostens' system did not represent a novel technological contribution which differed materially from methods already well-known in the field.⁵⁶

Jostens specifically argued that one of its former employees had misappropriated its trade secrets by consorting with Ad-

48. 318 N.W.2d at 694-95.

- 49. Id. at 696-97.
- 50. Id. at 698.
- 51. Id. at 699.
- 52. Id. 53. Id. at 699-700.
- 54. Id. at 700.
- 55. Id. at 699.
- 56. Id.

carry"). Statements in high level language, and apparently also statements in assembly language, are referred to as written in "source code." The third, or lowest level computer language, is machine language, a binary language using two symbols, 0 and 1, to indicate an open or closed switch Statements in machine language are referred to as written in "object code."

Id.

^{47.} Id. "The CPU can only follow instructions written in object code. However, programs are usually written in source code which is more intelligible to humans. Programs written in source code can be converted or transalated by a "compiler" program into object code for use by the computer." Id.

age to use routines from Jostens' application software in writing similar application software for National Computer Systems.⁵⁷ The court applied established principles of trade secret law to the new technology of structured computer programming which it had learned from the evidence adduced at trial and concluded that "[an employee's skills and experience], to the extent derived from generally known sources, are not considered confidential; a computer programmer, like a real estate sales person, should be able to ply his trade."⁵⁸

The Minnesota Supreme Court is but one of many courts which have demonstrated their ability to understand new technology and properly decide trade secret cases on their merits when the parties provide the court with a sufficient factual basis upon which to do so.⁵⁹ What, then, is the framework of trade secret law within which the courts should consider the operative facts in order to maintain the proper balance of interests and achieve proper results?

III. THE EXISTING FRAMEWORK OF TRADE SECRET LAW

The law of trade secrets had its origin in the common law. The *Restatement (First) of Torts*,⁶⁰ published in 1939, is the most frequently-cited attempt to synthesize the common law of trade secrets.⁶¹ During the 1960's, a growing concern with the lack of uniformity among jurisdictions, and a perceived lack of consistency even within jurisdictions, led to a proposal for uniform statutory treatment of trade secret law. In 1979, the National Conference of Commissioners on Uniform State Laws approved a codification of trade secret law entitled "The Uniform Trade Secrets Act" (Uniform Act).⁶² In 1980, Minnesota became the first state to adopt a statutory scheme based upon the Uniform Act.⁶³ Nine other states have since followed

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63. See Act of Apr. 23, 1980, ch. 594 §§ 3-12, 1980 Minn. Laws 1103 (codified at MINN. STAT. §§ 325C.01-.08 (1984)).

^{57.} Id. at 701.

^{58.} Id. at 702.

^{59.} See, e.g., cases cited, supra notes 10, 41-47.

^{60.} Restatement (First) of Torts § 757.

^{61.} The Restatement (Second) of Torts treats trade regulation as a body of law separate from tort law and therefore eliminates all provisions regarding trade secrets. RESTATEMENT (SECOND) OF TORTS, at 1 (1979).

^{62.} UNIFORM TRADE SECRETS ACT, 14 U.L.A. 537 (1980) [hereinafter cited as UNIFORM ACT].

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While there are significant differences between the common law of trade secrets and the Uniform Trade Secrets Act, courts have used the same basic framework in applying both of them. Most courts view trade secret cases as having basically three components. First, does the plaintiff have a trade secret? Second, has the trade secret been misappropriated? Finally, if the first two elements are present, what is the proper remedy?⁶⁵

A. The First Question—Does a Trade Secret Exist?

The *Restatement* provides that "[a] trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business and which gives him an opportunity to gain an advantage over competitors who do not know or use it."⁶⁶ The *Restatement* asserts that "an exact definition of a trade secret is not possible."⁶⁷ It suggests six factors for courts to consider in determining whether particular information constitutes a trade secret.⁶⁸ While excluding from trade secret protection information which does not meet the use requirement or which would not qualify under the six-factor test,⁶⁹ the *Restatement* separately affords more limited protec-

Id. at comment b.

69. Id.

Id.

^{64.} See Cal. Civ. Code §§ 3426-3426.10 (West Supp. 1986); Conn. Gen. Stat. Ann. §§ 35-50 to 35-58 (West Supp. 1985); Del. Code Ann. tit. 6, §§ 2001-2009 (Supp. 1984); Ind. Code Ann. §§ 24-2-3-1 to 24-2-3-8 (West Supp. 1985); Kan. Stat. Ann. §§ 60-3320 to 60-3330 (1983); La. Rev. Stat. Ann. §§ 51:1431 to 51:1439 (West Supp. 1985); Mont. Code Ann. §§ 30-14-401 to 30-14-409 (1985); N.D. Cent. Code §§ 47-25.1-01 to 47-25.1-08 (Supp. 1985); Wash. Rev. Code Ann. §§ 19.108.010 to 19.108.940 (Supp. 1986).

^{65.} See Klitzke, The Uniform Trade Secrets Act, 64 MARQ. L. REV. 277-78 (1980).

^{66.} RESTATEMENT (FIRST) OF TORTS § 757 comment b.

^{67.} Id.

^{68.} *Id.* (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; and (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

[[]A trade secret] differs from other secret information in a business . . . in that it is not simply information as to single or ephemeral events in the conduct of the business, as, for example, the amount or other terms of a secret bid for a contract or the salary of certain employees, or the security investments made or contemplated, or the date fixed for their announcement of a new policy or for bringing out a new model or the like.

tion to certain types of non-trade secret, confidential business information.⁷⁰

In contrast to the *Restatement*, the Uniform Act is premised upon the notion that a single definition of "trade secret" is possible. In the interest of uniformity and predictability, the Uniform Act defines trade secret as essentially *any* information which:

(1) is not generally known to and not readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use;

(2) from this, derives independent economic value, actual or potential; and

(3) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.⁷¹

Thus, the types of information which can qualify as trade secrets under the Uniform Trade Secrets Act are broader than under the *Restatement*. Both the commentators⁷² and those few courts which have decided cases under the Uniform Act agree that information of any type may constitute a trade secret under the Uniform Act.⁷³ Under the Uniform Act, the analysis of whether particular information is a trade secret is more specifically focused.⁷⁴ The various factors which must be considered under the common law are pertinent under the Act only

MINN. STAT. § 325C.01, subd. 5 (1984).

72. See, e.g., Klitzke, supra note 65, at 284-89 (1980).

^{70.} The Restatement (First) of Torts provides that any information which was (1) about one's business and (2) maintained as confidential is entitled to protection against acquisition by improper means—*i.e.*, theft, etc. See RESTATEMENT (FIRST) OF TORTS § 759 comments b, c. However, absent a contractual obligation of confidence, no action would lie for use or disclosure of non-trade secret, confidential information by one to whom it was disclosed in confidence. See id.

^{71.} UNIFORM ACT *supra* note 62, at 542. Minnesota Statutes section 325C.01, subdivision 5 provides in pertinent part:

[&]quot;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.

^{73.} See, e.g., Totalizer Co. v. Automate Ltd., No. 7268, slip op. (Del. Ch., New Castle Co., Aug. 12, 1983).

^{74.} Compare United Wild Rice v. Nelson, 313 N.W.2d 628, 634 (Minn. 1982) ("the statutory definition mirrors that set out in *Cherne*") with Electro-Craft, 332 N.W.2d at 898 ("To the extent . . . that the Act modifies the common law, we are constrained to give effect to the statutory language").

to the extent that they bear upon whether the three statutory elements of a trade secret are present.⁷⁵ Moreover, the Uniform Act eliminates any requirement that the information be "used" in one's business in order to qualify as a trade secret.⁷⁶

B. The Second Question—Has There Been a Misappropriation?

The *Restatement* and the Uniform Trade Secrets Act provide similar standards for determining whether there has been a misappropriation. Under the *Restatement*, the standard is whether the trade secret has been acquired by improper means such as theft, fraud or similar misconduct or has been disclosed or used in breach of a duty of confidentiality.⁷⁷ For purposes of *Restatement* section 757, "[t]he question is simply whether in the circumstances B knows or should know that the information is A's trade secret and that its disclosure is made in confidence."⁷⁸

Under the *Restatement*, one who innocently acquires another's trade secret is not liable for any disclosure or use prior to receiving notice that it is a trade secret status and that it was acquired by mistake or through another's breach of confidence. There is no liability for his disclosure or use even after such notice if he has already paid value or materially changed his position.⁷⁹

The Uniform Act provides a specific definition of "misappro-

77. Section 757 of the Restatement provides:

RESTATEMENT (FIRST) OF TORTS § 757.

78. Id. § 757 comment j.

79. Id. § 758.

^{75.} See, e.g., Jostens, 318 N.W.2d at 698 n.4 (the statutory definition does not require that the information was gained at the owner's expense). Even those Restatement factors which are not expressly embodied in the Uniform Act may warrant consideration, however, if they are of probative value with respect to the statutory elements — e.g., economic value. See Electro-Craft, 332 N.W.2d at 901 n.12 (under the Act, whether the information was gained at the owner's expense becomes a possible element of proof that the information provides a competitive advantage).

^{76.} See UNIFORM ACT supra note 62, § 1; see also Klitzke, supra note 65, at 288.

One who discloses or uses another's trade secret, without a privilege to do so, is liable to the other if (a) he discovered the secret by improper means, or (b) his disclosure or use constitutes a breach of confidence reposed in him by the other in disclosing the secret to him, or (c) he learned the secret from a third person with notice of the facts that it was a secret and that the third person discovered it by improper means or that the third person's disclosure of it was otherwise a breach of his duty to the other, or (d) he learned the secret with notice of the facts that it was a secret and that its disclosure was made to him by mistake.

priation."⁸⁰ The definition applies to the *acquisition* of a trade secret of another if the acquirer knows or has reason to know that the trade secret was acquired by improper means.⁸¹ In all other circumstances, misappropriation applies to *disclosure* or *use* of the trade secret.⁸² There are three sets of circumstances under which disclosure or use of a trade secret may constitute misappropriation under the Uniform Act: (1) where knowledge of the trade secret was derived by improper means or through a person who utilized improper means to obtain the information; (2) where the information was acquired under circumstances giving rise to a duty of confidentiality or through another who acquired it under such circumstances; and (3) where the information was acquired through accident or mistake.⁸³

Under the Uniform Act, disclosure or use without knowledge of, or reason to know of, the circumstances which render disclosure or use wrongful does not constitute misappropriation.⁸⁴ The Uniform Act thus continues the immunity which the *Restatement* afforded for disclosure or use of a trade secret prior to the time that the party had notice that it was the trade secret of another and had not been properly acquired. Unlike the *Restatement*, though, the Uniform Act does not recognize continuing immunity after notice in all situations where a party has paid value or materially changed his position before receiving such notice. Under the Uniform Act, continuing immunity exists only where knowledge of the trade secret was acquired by accident or mistake—not where it was acquired through a third party who either obtained it improperly or breached a duty of confidentiality.⁸⁵

C. The Third Question—What is the Appropriate Remedy?

The *Restatement* provides little guidance as to the remedy to be granted for the misappropriation of a trade secret. Under the common law, courts are free to fashion whatever remedy is appropriate. This can include injunctive relief, an award of damages suffered by the trade secret owner, disgorgement of

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82. Id.

- 84. Id.
- 85. Id.

^{80.} UNIFORM ACT, supra note 62, § 1.

^{81.} Id.

^{83.} Id.

unjust enrichment by the misappropriator, punitive damages, or a combination of the foregoing.⁸⁶ The Uniform Act expressly provides for all of these remedies,⁸⁷ as well as awards of attorney's fees to the prevailing party under appropriate circumstances.⁸⁸ In contrast to the *Restatement*, the Uniform Act and the comments thereto provide substantial guidance as to the framing of appropriate remedies.⁸⁹

IV. PROBLEMS IN APPLYING TRADE SECRET LAW

The legal framework developed under the common law and perpetuated under the Uniform Act has led courts to separately consider the trade secret and the misappropriation aspects of trade secret claims. For example, in Eutectic Welding Alloys Corp. v. West, 90 the Minnesota Supreme Court described the elements of an action for appropriation of a trade secret as being "that such trade secrets in fact existed; that such trade secrets had been acquired by the defendant as a result of a confidential relationship; and that defendant had used and disclosed such secrets."⁹¹ Thus, courts have come to view the liability analysis of trade secret misappropriation claims as involving two distinct elements. The first element is whether the plaintiff has demonstrated a property interest in the information in question-i.e., whether a trade secret exists. The second element is whether there has been a misappropriation*i.e.*, was there a breach of a confidential relationship?⁹²

Some courts have explained their decisions exclusively in terms of either a property analysis or a confidential relationship analysis. The more analytical courts, however, have expressed discomfort with separate treatment of the property and misappropriation elements. As emphasized by the court in *Jostens*, the various elements "should not be artificially sepa-

92. See Electro-Craft, 332 N.W.2d at 892; Jostens, 318 N.W.2d at 701; Eutectic Welding Alloys Corp. v. West, 160 N.W.2d at 570.

^{86.} See, e.g., Cherne, 278 N.W.2d at 85. Plaintiff was awarded a permanent injunction restraining defendants from rendering services for a period of two years to plaintiff's former or prospective customers; \$39,322 in compensatory damages ; and \$10,000 in punitive damages. *Id.*

^{87.} UNIFORM ACT, supra note 62, § 2-3, at 544-48.

^{88.} Id. §§ 3-4, at 546-48.

^{89.} Id. § 2-4 (injunctive relief, damages and attorney's fees). See infra text accompanying notes 190, 197-98, 200-01.

^{90. 281} Minn. 13, 160 N.W.2d 566 (1968).

^{91.} Id. at 18, 160 N.W.2d at 570.

rated for purposes of analysis since, in a significant sense, they are interdependent."⁹³ Unfortunately, constrained by the traditional framework of trade secret law, even the more analytical courts have tended to separately address and explain the property and misappropriation issues.

One example of a court emphasizing the property element is Cherne Industrial, Inc. v. Grounds & Associates, Inc.⁹⁴ In Cherne, the court found that the defendants breached contractual and common law duties not to use or disclose the plaintiff's confidential and trade secret information. The court explained:

The protection to which plaintiff was entitled is similar to that provided to the holder of a copyright. Both are protected from the unauthorized use of their ideas, ideas that, in many cases, they have spent significant time, skill, and money in developing.⁹⁵

More recently, in *Jostens*, the same court emphasized the misappropriation element. Finding that the defendants had breached no duty to the plaintiff, the court stated:

The protection afforded trade secrets is not intended to reward or promote the development of secret processes (although it does, of course, benefit the enterprising developer), but rather is to protect against breaches of faith and the use of improper methods to obtain information. Trade secret law seeks to maintain standards of loyalty and trust in the business community.⁹⁶

In reviewing these decisions, at least one commentator argues that the property and misappropriation elements are analytically discrete and suggests that the interdependence referred to in the *Jostens* opinion means nothing more than a limited overlapping of evidence.⁹⁷ The problem with this approach is that the discrete treatment of these elements and of their underlying policies is precisely what has led to ostensibly inconsistent declarations by courts and confusion as to what the law is.

For example, in both Cherne⁹⁸ and Electro-Craft Corp. v. Con-

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^{93.} Jostens, 318 N.W.2d at 701 (quoting 2 R. MILGRIM, MILGRIM ON TRADE SECRETS § 7.07(1), at 136); see Electro-Craft, 332 N.W.2d at 903.

^{94. 278} N.W.2d 81 (Minn. 1979).

^{95.} Id. at 94.

^{96.} Jostens, 318 N.W.2d at 701 (citation omitted).

^{97.} See Note, supra note 11, at 988 n.19.

^{98.} Cherne, 278 N.W.2d at 94.

trolled Motion, Inc., ⁹⁹ the court's analysis focused primarily upon the trade secret or "property" element. In so doing, the decisions suggest dramatically different requirements for obtaining trade secret protection. In *Cherne*, the court found that certain information should be accorded trade secret status, stating that "[t]here would be little purpose in taking such a quantity of documents if defendants did not believe the information was valuable."¹⁰⁰ The court was not impressed by the defendants' proof that there were alternative means by which they could have properly obtained the same information from other sources.¹⁰¹ This analysis suggests that even a relatively weak showing of property rights would entitle an employer to trade secret protection.

In Electro-Craft, applying the more liberal standards of the Uniform Trade Secrets Act, the court reached the opposite conclusion. In *Electro-Craft*, there was evidence supporting the trial court's finding that the defendants knew or should have known of the employer's intention to treat the subject information as confidential. The information at issue was of a type which other courts had found to satisfy the trade secret or property element.¹⁰² The court concluded that no trade secret existed, however, because of what the court termed the "nonintuitive nature" of the claimed trade secrets, and because the employer failed to let the employees know "in no uncertain terms" specifically what information it intended to keep confidential.¹⁰³ In contrast to Cherne, the Electro-Craft analysis suggests that a very strong showing of property rights is necessary before an employer will be found entitled to trade secret protection.

This problem has been even further compounded in cases

^{99. 332} N.W.2d 890 (Minn. 1983).

^{100.} Cherne, 278 N.W.2d at 90.

^{101.} Id. at 90-91. But see Miller, 298 N.W.2d at 459 (because the knowledge acquired by defendant during the course of his employment by plaintiff was generally available to the public from a variety of sources, defendant's possession of this knowledge cannot support a restraint on his competing with plaintiff); Van Products Co. v. General Welding & Fabrication Co., 419 Pa. 248, 261-62, 213 A.2d 769, 776-77 (1965).

^{102.} Electro-Craft, 332 N.W.2d at 899-903.

^{103.} Id. at 902-03. In 1985 the Minnesota legislature reacted to the *Electro-Craft* decision by amending Minnesota's version of the Uniform Trade Secrets Act to make it clear that failure to give specific notice will not defeat a trade secret claim if, under all the circumstances, the person to whom the information is disclosed reasonably ought to know of the intent to treat it as such. See MINN. STAT. § 325C.01, subd. 5.

where the courts have been called upon to decide whether the information in question, albeit confidential, qualified for protection as a trade secret. As previously noted, the *Restatement* suggests that certain types of information, although sensitive and sought to be kept confidential, should *not* be treated as trade secrets.¹⁰⁴ While the *Restatement* provides a cause of action in tort in the event of *improper procurement* of non-trade secret, confidential information about another's business for competitive purposes, this is treated as a separate issue involving different policy considerations.¹⁰⁵

This distinction between the levels of protection afforded to different types of confidential business information under the Restatement is curious, since the stated policy underlying the tort of trade secret misappropriation is to maintain standards of business ethics and not to promote the development of any particular type of information.¹⁰⁶ The distinction between "trade secret" and "confidential" information clearly goes to the nature of the information to be protected, rather than to the type of conduct to be condemned. The fact remains, however, that under the Restatement there is no action in tort for the unauthorized disclosure or use of non-trade secret, confidential information obtained in confidence. This distinction has proven troublesome for the courts and has resulted in some decisions which, when examined in light of the public policy interests sought to be served, are at least confusing if not downright conflicting.

In Cherne, the issue was "whether the defendants used confidential information or trade secrets belonging to the plaintiff \dots ."¹⁰⁷ Noting that the defendants' employment agreements with the plaintiff defined "confidential information" as "information not generally known, about [the plaintiff's] processes or products," and adopting the generally accepted *Restatement* definition of "trade secret," the court fashioned a four-part test applicable to both confidential information and trade secrets. The elements of that test are: "(1) the protected matter is not generally known or readily ascertainable, (2) it provides a demonstrable competitive advantage, (3) it was gained at expense to the employer, and (4) it is such that the

^{104.} See supra note 69.

^{105.} See Restatement (First) of Torts § 759.

^{106.} See id. § 757, comment b.

^{107.} Cherne, 278 N.W.2d at 89.

employer intended to keep it confidential."108

It appeared from *Cherne*, therefore, that the only confidential information subject to protection against unauthorized disclosure or use, even under a written nondisclosure agreement, was information that would qualify as a trade secret under the four-part test. Finding that the information in question did qualify as a trade secret under that test, the court awarded relief to the plaintiff, noting that:

[t]he purpose of the [restrictive employment] contract was to protect plaintiff's legitimate business interest in the information it had developed . . . Defendants had both contractual and common law duties not to disclose this information and not to use it to harm plaintiff's business.¹⁰⁹

In Jim W. Miller Construction, Inc. v. Schaefer, 110 where the nature of the information in question was such that it could not qualify for trade secret protection, the plaintiff tried a different tack. Rather than relying upon a nondisclosure agreement or asserting a trade secret claim, the plaintiff sought to indirectly prohibit the competitive use or disclosure of its nonconfidential information by use of a noncompete agreement.¹¹¹ Recognizing that, as a matter of policy, no restrictions should fetter an employee's right to apply to his own advantage the skills and knowledge acquired by the overall experience of his previous employment, the court held that "the fact that an employee has during the course of his employment acquired nonconfidential information and skills that are not secret processes cannot support the enforcement of a restrictive covenant."112 The court found the restrictive covenant unreasonable and unenforceable "because the restraint it imposed does not in any legitimate manner protect plaintiff's business or good will."113

Cherne suggests that information which would not qualify as a

^{108.} Id. at 90.

^{109.} Id. at 94.

^{110. 298} N.W.2d 455 (Minn. 1980).

^{111.} For a discussion of the impact of employment agreements on trade secret litigation, see Garry, The Relationship Between Employment Agreements and Trade Secret Litigation in Minnesota: The Evolution of Trade Secret Law from Cherne to Electro-Craft, 11 WM. MITCHELL L. REV. 501 (1985).

^{112.} Miller, 298 N.W.2d at 459 (emphasis added).

^{113.} Id. at 458; cf. Eutectic Welding, 160 N.W.2d at 566 (merely labeling information confidential does not make it so or support either a claim for trade secret misappropration or the enforcement of a noncompete agreement).

trade secret could not be the subject of a contractual restriction upon disclosure or use. *Miller* suggests that the disclosure of information which would not qualify as a trade secret could not, by itself, support a covenant not to compete. Indeed, as recently as 1982, the Minnesota Supreme Court seemed to reaffirm that only "knowledge gained at an employer's expense, which takes on the characteristics of a trade secret *and* which would be unfair for the employee to use elsewhere, is deemed confidential and is not to be disclosed or used."¹¹⁴

Through this line of cases, the Minnesota Supreme Court adhered fairly well to the *Restatement* view that only information qualifying as a trade secret ought to be protected against unauthorized disclosure or use. The Court thereby preserved the right of an employee to exploit his own general knowledge and skill, including non-trade secret information gained in his prior employment. By establishing a fairly liberal standard for proving the existence of a trade secret, and simultaneously limiting the types of information in which an employer could claim a legitimate business interest, the court had risen to the challenge of maintaining a proper balance between the competing policies of encouraging development of new ideas and promoting the free flow of ideas, information, and commerce.

Under this line of cases, the only restrictions on disclosure or use of confidential information deemed reasonable to protect the legitimate business interests of an employer, whether by a nondisclosure or noncompete contract or at common law, is the restriction against unauthorized disclosure or use of information which qualifies as a trade secret.

In other cases, however, the court clouded its message. In United Wild Rice, Inc. v. Nelson,¹¹⁵ the plaintiff asserted that the defendant had appropriated its trade secrets or confidential information and used them to the plaintiff's detriment. Applying the four-part Cherne test "for determining which information is confidential or a trade secret,"¹¹⁶ the court found that the information in question did not qualify as a trade secret and rejected the plaintiff's misappropriation claim.¹¹⁷ Up to this point, the court was apparently adhering to the view that an

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^{114.} See Jostens, 318 N.W.2d at 702 (emphasis supplied).

^{115. 313} N.W.2d 628 (Minn. 1982).

^{116.} Id. at 633-34.

^{117.} Id. at 634.

employer cannot restrict a former employee's disclosure or use of information which does not qualify as a trade secret, even if otherwise deemed confidential. The court went on to say, however, that "[t]his 'confidential information' would properly be the subject of a covenant not to compete, not a charge of unfair competition. This is especially true in situations such as the instant case where the market is small and one concern holds a large portion of that market."¹¹⁸

While appearing faithful to the proposition that only information which qualified as a trade secret could support a claim of misappropriation, the United Wild Rice court seemingly contradicted its holding in Miller by suggesting that an employee's acquisition of sensitive business information might be sufficient to support the enforcement of a restrictive covenant, even though the information does not qualify as a trade secret. The only potentially distinguishing feature between the two cases is the court's comment in United Wild Rice that the market was small and that the plaintiff held a large portion of that market. Perhaps the court would have concluded that, under these circumstances, a covenant not to compete for the purpose of protecting plaintiff's "goodwill" would have been reasonable and enforceable because the restraint imposed would have served to protect plaintiff's legitimate business interests without imposing upon the employee any greater restraint than is reasonably necessary for that purpose.¹¹⁹

More recently, in Saliterman v. Finney, ¹²⁰ the Minnesota Court of Appeals held that "confidential" information need not qualify as trade secret to be protectable under either contract or common law.¹²¹ Citing both Cherne and Jostens for the proposition that relief may be granted against a party who wrongfully used confidential information or trade secrets obtained from his employer in violation of an explicit agreement or a common law duty,¹²² the court affirmed the trial court's conclusion that the defendant had "breached his common law duty not to disclose or use confidential information gained at the expense of his employer."¹²³

^{118.} Id.

^{119.} See Miller, 298 N.W.2d at 458.

^{120. 361} N.W.2d 175 (Minn. Ct. App. 1985).

^{121.} Id. at 178.

^{122.} Id. at 178-79.

^{123.} Id. at 179.

The Uniform Trade Secrets Act, as enacted in Minnesota in 1980¹²⁴ and applied in *Saliterman*, includes a definition of trade secret which expressly displaced conflicting tort law pertaining to misappropriation of trade secrets.¹²⁵ By its terms, however, the Act does not affect "contractual or other civil liability or relief that is not based upon misappropriation of a trade secret."¹²⁶ For reasons that are not clear from the opinion, the *Saliterman* court apparently determined that the information in question would not qualify as a trade secret, even under the broad definition contained in the Uniform Act. That, however, did not stop the court from applying the common law and granting relief.

Citing Electro-Craft for the proposition that "The Uniform Trade Secrets Act is not a 'catch-all' for all industrial torts,"127 the Saliterman court read Cherne and Jostens as having established two separate common law torts for misappropriation of sensitive business information — trade secret misappropriation, and misappropriation of confidential information — both of which employ precisely the same common law test.¹²⁸ Thus, while the common law standard no longer applies to trade secret claims in Minnesota, having been displaced by the broader protection afforded by the Uniform Trade Secrets Act, it appears that the common law standard may still be applied in misappropration cases if the information is denominated "confidential" rather than "trade secret" information. The Sal*iterman* holding defies reason, particularly since the "confidential" information in question is of a type which may qualify for trade secret protection under the Uniform Act, but is expressly excluded from trade secret protection under the Restatement, 129 the source of the rule expressed in the cases upon which the Saliterman court relied for its reasoning.

The courts have given equally contradictory signals with regard to the "breach of business ethics" or "misappropriation" element. In *Electro-Craft*, the court held that "[w]ithout a proven trade secret there can be no action for misappropria-

126. Id. § 325C.07(b)(1).

128. See id. at 178-79.

^{124.} MINN. STAT. §§ 325C.01-.08.

^{125.} Id. § 325C.01, subd. 5.

^{127.} Saliterman, 361 N.W.2d at 178.

^{129.} See supra notes 66, 69.

tion, even if defendants' actions were wrongful."¹³⁰ In Saliterman, decided a year later, the Minnesota Court of Appeals cited both Cherne and Jostens as authority for holding that an employer may have a claim for breach of an employee's common law duty of confidence, even though the information in question does not qualify as a trade secret.¹³¹

The property/misappropriation dichotomy has also resulted in inconsistency with respect to the remedies afforded in trade secret cases. This is perhaps best illustrated by the case of *let* Spray Cooler, Inc. v. Crampton.¹³² In Jet Spray, the plaintiff's former employees utilized, in competition with the plaintiff, certain information in the form of recommendations contained in a report that the plaintiff had commissioned from an independent consultant.¹³³ The report had taken approximately three months to prepare, and the recommendations, which had never been used by the plaintiff, were of only minor benefit to the defendants in developing their competing product.134 A damage master, focusing upon protecting the plaintiff's property interests, determined that the plaintiff was only entitled to the defendants' profits for three months, the amount of time it would have taken to independently develop the information in issue.¹³⁵ The court, stressing the defendants' breach of confidence, ruled that the plaintiff was entitled to an accounting for all of the defendants' profits for the entire twelve years they had been in business. 136

The cases cited above serve to demonstrate how courts viewing trade secret cases from a property or misappropriation perspective might focus inordinately upon one of the pertinent policy considerations, while disregarding others. Perceived inconsistencies in the standards applied by the courts are of serious concern to entrepreneurs who have undertaken or are about to undertake the cost and risk of high technology research and development, and are of equal concern to their em-

^{130.} Electro-Craft, 332 N.W.2d at 897.

^{131.} Saliterman, 361 N.W.2d at 178-79.

^{132. 377} Mass. 159, 385 N.E.2d 1349 (1979).

^{133.} Id. at 163-64, 385 N.E.2d at 1353.

^{134.} Id.

^{135.} Id. at 164, 385 N.E. 2d at 1353.

^{136.} Id. at 169, 385 N.E.2d at 1356; see also Aries, 366 N.W.2d at 366. There, citing the broad range of remedies authorized by the Uniform Act, the court affirmed an award including injunctive relief and plaintiff's actual damages and defendant's revenues and a royalty and punitive damages and attorney's fees. Id. at 369.

Products Co. v. General Welding and Fabricating Co. 139 involved such a set of circumstances. The information at issue in that case involved know-how developed over years of experimenta-

ployees. Can trade secret law serve as a flexible and yet reasonably uniform and predictable means of protecting legitimate interests in new technology?

PROPOSED FRAMEWORK FOR APPLYING TRADE SECRET LAW V

Trade secret law can serve as a flexible and yet reasonably uniform and predictable means of protecting legitimate interests in new technology, provided that courts recognize and maintain a careful balance of the policies underlying the law of trade secrets. As the foregoing discussion illustrates, courts can lose sight of this balance if they give separate treatment to the "property" and "business ethics" aspects of trade secret cases. Whether information should be protected in a given case should depend upon the total circumstances surrounding both the plaintiff's claimed property interest and the defendant's alleged violation of business ethics.

A slight showing of property rights in information may be sufficient to entitle the plaintiff to protection if the circumstances demonstrate a relatively egregious breach of business ethics. Arguably, the Cherne court meant to suggest this by declaring that, even if the same information could have been obtained from other readily available sources, an employee may still be liable for misappropriation if he, in fact, used his employer's confidential information.¹³⁷ Similarly, unless the law of trade secrets is to be grossly distorted, this is also the only meaning to be attributed to the language in Saliterman which suggests that an employee is under a common law duty not to use the confidential information of his employer even though the information in question does not qualify as a trade secret.138

Conversely, even a relatively strong showing of property rights in information might not entitle the plaintiff to protection if the circumstances demonstrate little or no impact on business ethics. The Pennsylvania Supreme Court case of Van

^{137.} See Cherne, 278 N.W.2d at 91.

^{138.} See Saliterman, 361 N.W.2d at 178.

^{139. 419} Pa. 248, 213 A.2d 769 (1965).

tion and adaptation at the plaintiff company.¹⁴⁰ The individual defendant had no experience in the field prior to his employment with the plaintiff.¹⁴¹ During his employment he became intimately familiar with the plaintiff's know-how and learned virtually everything there was to know about the manufacture and marketing of the plaintiff's product.¹⁴² On the other hand, the defendant (who was terminated by the plaintiff) had been, to a large extent, the source of many aspects of the know-how in question.¹⁴³ Moreover, when he developed a competing product for his new employer, the product was similar to, but not a copy of, that of the plaintiff. The similarities lay primarily in the function of and general concept behind the technology.¹⁴⁴ The court held that, under these circumstances, the defendant had not misappropriated any trade secret of his exemployer.¹⁴⁵

In order to maintain sight of the interplay between the policies underlying the "property" concept and those favoring protection of business ethics, the framework for analysis should not consist of a wholly separate consideration of trade secret issues and misappropriation issues. The questions which should form the framework for analysis are:

(A) Does the plaintiff have any right to protection of the information in question?

(B) Does the plaintiff have a right to protection against the use or disclosure made or threatened by this particular defendant?

(C) If so, what is the extent and, conversely, the limit of that protection?

The following subsections will examine each of the above factors.

A. Does The Plaintiff Have a Right to Trade Secret Protection?

Courts and commentators have stressed that the first question in any trade secret case is whether a trade secret exists.¹⁴⁶

146. 2 L. ALTMAN, CALLMANN UNFAIR COMPETITION TRADEMARKS AND MONOPO-LIES, § 14.02 (4th ed. 1982); see also Electro-Craft, 332 N.W.2d at 897; Wheelabrator

^{140.} See id. at 255-57, 213 A.2d at 773-74.

^{141.} Id. at 252, 213 A.2d at 771.

^{142.} Id. at 252, 213 A.2d at 772.

^{143.} Id. at 261-62, 213 A.2d at 776-77.

^{144.} Id. at 268-69, 213 A.2d at 780.

^{145.} Id. at 269, 213 A.2d at 780.

This is usually viewed as a question of whether the information qualifies as a form of intellectual property.¹⁴⁷ An analysis which requires an initial determination of whether there is any "property" in an alleged trade secret is appropriate, but only if this initial determination is no more than a threshold test. This initial trade secret test should not be unduly difficult to meet. Nor should it be the only portion of the analysis where factors that bear upon the plaintiff's property interests are considered.

The issue at this stage is not whether the plaintiff's property interests are strong enough to entitle him to protection in all instances, or even whether those interests are strong enough to warrant protection against this defendant. It does not involve the balancing of interests which must occur later in the analysis. This first step is merely a minimum threshold test *i.e.*, whether the information in question could meet the minimum requirements to qualify for protection under *any* circumstances. Properly applied, the definition of trade secret contained in the Uniform Act can serve as just this type of minimum threshold test.¹⁴⁸ Perhaps due to the common law background and the structure of the Act, however, the Minnesota Supreme Court, a leader in interpreting the Act, has arguably failed to treat it as such.¹⁴⁹

The resolution of this threshold trade secret test should depend first upon whether the information has been maintained as a secret by the plaintiff. If the information has been available to others who could obtain economic benefit from its disclosure or use, there is no justification for protection even against one to whom the information may have been disclosed in confidence. However, the policies underlying trade secret law do not require absolute secrecy. All that is necessary is relative secrecy. The information in question must be subject to efforts that are reasonable under the circumstances to maintain secrecy against other persons who might use or disclose it. This is recognized both under the common law¹⁵⁰ and in the

149. See Electro-Craft, 332 N.W.2d at 898.

150. RESTATEMENT (FIRST) OF TORTS § 757 comment b; Jostens, 318 N.W.2d at 700; Radium Remedies Co. v. Weiss, 173 Minn. 342, 347, 217 N.W. 339, 341 (1928).

Corp. v. Fogle, 317 F. Supp. 633, 636 (W.D. La. 1970), aff d, 438 F.2d 1226 (5th Cir. 1971).

^{147.} Wheelabrator, 317 F. Supp. at 637.

^{148.} Uniform Act, supra note 62, § 1, at 541.

express language of, as well as the comments to, the Uniform Act.¹⁵¹

The *Electro-Craft* holding that employers who do not specifically notify employees of the particular information which is a trade secret *ipso facto* fail to maintain the secrecy necessary for trade secret protection is not justifiable. This aspect of the *Electro-Craft* opinion has been soundly criticized¹⁵² and has been overruled, in effect, by legislative action in Minnesota. In 1985, the Minnesota Legislature amended the statutory definition of "trade secret" contained the Minnesota version of the Uniform Act to make it clear that specific notice to employees is not required.¹⁵³ An employer's efforts to maintain secrecy as against employees are sufficient if, under all the circumstances, the employees know or should know that information of the type in question is to be treated as confidential.¹⁵⁴

Under the threshold trade secret test, the principal issue should be whether the policies which would justify treating the information akin to intellectual property are implicated at all. If the information is a form of technical know-how, the question should be whether that information represents a more than trivial advancement of the art. If it does, the policy of promoting such advances justifies at least some level of protection. If it does not, even the policy of protecting business ethics fails to justify restraining the defendant's ability to compete or the social cost of litigation. Under such circumstances, even though the defendant's conduct in acquiring the information may be reprehensible, he gains no unjust enrichment, and the plaintiff suffers no measurable injury.¹⁵⁵

In order to meet the threshold test, technical information or know-how must not be readily ascertainable by proper means, and, if appropriated and applied by others, it must lead to efficiencies which are at least sufficiently great to outweigh the cost of putting such an advance to commercial use. This has been frequently expressed as a requirement that the informa-

^{151.} Uniform Act, supra note 62, § 5, at 542 & comment 5.

^{152.} See Note, supra note 11, at 1001-04.

^{153.} Act of May 23, 1985, ch. 196, § 1, 1985 Minn. Laws 612 (codified as amended at MINN. STAT. § 325C.01, subd. 5 (Supp. 1985)).

^{154.} Id.; see Aries, 366 N.W.2d at 369.

^{155.} The *Electro-Craft* court seems to have adopted this view. *See supra* text accompanying note 130.

tion at least amount to a discovery.¹⁵⁶ In *Jostens*, the Minnesota Supreme Court describes this requirement by reference to a continuum:

Courts agree that trade secrets lie somewhere on a continuum from what is generally known in a field to what has some degree of uniqueness, although there need not be the degree of novelty or originality required for patent or copyright protection Some measure of discovery is required.¹⁵⁷

The Uniform Act expresses this requirement in terms of information which derives independent economic value from not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use.

Information of a type which the *Restatement* classifies as (nontrade secret) confidential business information—e.g., secret bid information, salary levels, etc.—does not advance an art. It is protected primarily to preserve business ethics and, to a lesser extent, to indirectly promote competitive achievement. By preventing the use of competitors' confidential information about such things as salaries and customers, society tends to encourage fair competition by means which encourage the development of more efficient methods of production, higher quality, and lower pricing.

The threshold trade secret test with respect to such confidential business information should be simply whether a competitor could make at least some significant use of the information to change the competitive balance between himself and the plaintiff. The Uniform Act has been structured to provide a unified definition of "trade secret" applicable to both technical know-how and confidential business information. This test can serve reasonably well if it is treated as no more than a threshold or "minimum property" test.¹⁵⁸

^{156.} Motorola, Inc. v. Fairchild Camera and Instrument Corp., 366 F. Supp. 1173, 1184 (D. Ariz. 1973) quoting Sarkes Tarzian, Inc. v. Audio Devices, Inc., 166 F. Supp. 250 (S.D. Cal. 1958), aff d, 283 F.2d 695 (9th Cir. 1960), cert. denied, 365 U.S. 869 (1961); Koehring Co. v. E.D. Etnyre & Co., 254 F. Supp. 334, 361 (N.D. Ill. 1966). C.f. Pressure Science Inc. v. Kramer, 413 F. Supp. 618 (D. Conn. 1976), aff d mem., 551 F.2d 301 (2d Cir. 1976); Jastens, 318 N.W.2d at 698.

^{157.} Jostens, 318 N.W.2d at 698.

^{158.} Klitzke, *supra* note 65, at 287-88 (1980). In order to accomplish this end, the requirement that the owner *use* the information has been eliminated. *Id.* Elimination of this requirement makes sense in connection with business information and also in connection with technical know-how where there is a justifiable reason for the owner's failure to use the information. Uniform Act, *supra* note 62, § 1 comment, at

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B. Does the Plaintiff Have a Right to Trade Secret Protection as Against the Defendant?

Even if a trade secret is found to exist, an owner's entitlement to protection against any particular disclosure or use should not depend solely upon whether the defendant acquired the information during the course of a confidential relationship. Each of the pertinent policies underlying the law of trade secrets must be considered, and the competing interests of the plaintiff, the defendant, and society itself must be considered and balanced.

The common law is certainly flexible enough to permit this type of straight-forward balance of interests. While this approach might appear at first blush to be inconsistent with the language of the Uniform Trade Secrets Act, the apparent inconsistency disappears if the definition of "misappropriation" under the Uniform Act is read expansively. At least where the trade secret has not been acquired improperly, there will be a "misappropriation" under the Uniform Act only if the defendant knows or has reason to know that his knowledge of the trade secret was acquired under circumstances giving rise to a duty to maintain its secrecy or limit its use. The "circumstances" to be considered must be more than the means by which the trade secret was acquired. Otherwise, an ex-emplovee could be prevented from utilizing his skill and expertise about a manufacturing process merely because they were developed while working for an employer-plaintiff. If the "circumstances" to be considered under the Act are all relevant cimcumstances, a balance of interests is fully appropriate.

One purpose of the law of trade secrets is to maintain business ethics. Consideration, therefore, must be given to the manner in which the defendant acquired the information. Because another purpose of trade secret law is to ensure that entrepreneurs will incur the costs and risks associated with research and development, consideration must also be given to the developmental costs the plaintiff incurred and the risk of failure the plaintiff assumed. Only by considering both of

^{541.} Arguably, however, this is not true where an owner simply shelves newly discovered information until he is forced to utilize it. Under these circumstances, the justifications for society treating the information as intellectual property are absent. Arguably no protection should be given. Alternatively, if some level of protection is given, the owner's failure to use his trade secret at the earliest opportunity should limit the scope of the relief to which he is entitled. *See supra* note 23.

these factors can the level of need for trade secret protection be assessed in any given case.

Of course, trade secret protection must not be so extensive as to unnecessarily infringe upon society's interest in the free flow of ideas, information, and commerce, including the dissemination of new technology. In addition, the manner in which trade secret protection will restrict the defendant's ability to carry on his chosen trade or business must be balanced against the considerations which support protection. The interrelationship of these considerations is illustrated by the following matrices:

TRADE SECRET BALANCE OF INTERESTS MATRICES

	SUBSTANTIAL INVESTMENT/ RISK BY PLAINTIFF	MODERATE INVESTMENT/ RISK BY PLAINTIFF	MINIMAL INVESTMENT/RISK BY PLAINTIFF OR JUST "BUSINESS INFORMATION"
DEFENDANT TOOK			
PLAINTIFF DISCLOSED IN CONFIDENCE			
DEFENDANT DEVELOPED WHILE EMPLOYED OR PAID BY PLAINTIFF			

A. Property and Business Ethics Considerations

Plaintiff should ordinarily prevail.

- 1

Defendant should ordinarily prevail.

- Outcome could vary depending upon the strength of the factors weighing against protection (see following matrix).

В.	Balancing	of	Competing	Interests	in	the	Most	Difficult	Cases
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	MODERATE INVESTMENT/ RISK AND DISCLOSED TO DEFENDANT	LOW INVESTMENT/RISK AND DISCLOSED TO DEFENDANT		
	OR HIGH INVESTMENT/RISK BUT DEVELOPED BY DEFENDANT	OR MODERATE INVESTMENT/ RISK BUT DEVELOPED BY DEFENDANT		
INFORMATION IS DETAILED IN NATURE AND/OR DEFENDANT CAN ENGAGE IN HIS TRADE OR BUSINESS WITHOUT USING				
INFORMATION IS GENERAL OR CONCEPTUAL IN NATURE AND/OR DEFENDANT CANNOT REASONABLY ENGAGE IN HIS TRADE OR BUSINESS WITHOUT USING				

Plaintiff should ordinarily prevail.

- Defendant should ordinarily prevail.

 Plaintiff should prevail if, but only if, he can demonstrate that there was an understanding of confidentiality (written or oral) between the plaintiff and the defendant when the defendant acquired the information.

While these matrices are admittedly simplistic and incomplete,¹⁵⁹ they do serve to illustrate the interplay of the more important factors which should determine whether trade secret protection will be granted in any given case. They also aid in explaining many of the apparently inconsistent statements and rulings in trade secret cases. These apparent inconsistent rulings usually occur because circumstances create a different balance of interests (*i.e.*, the cases are far apart on the matrices).¹⁶⁰ Courts should not be criticized for weighing and balancing these competing interests to achieve equity in the

^{159.} A "complete" matrix framework for application of trade secret law would need to be drawn in multiple additional dimensions. Graphic illustration of the authors' proposed framework is unnecessary, however, since courts are able to achieve the same result by abstract analysis.

^{160.} With the exception of the *Electro-Craft* case, the authors believe that placing the circumstances of the cases decided by the Minnesota Supreme Court and the Minnesota Court of Appeals on the matrices demonstrates that, while the opinions sometimes state apparently contradictory principles, they reach a correct result on the liability issue. *See supra* text accompanying notes 90-136. Even the *Electro-Craft* result might have been justified if the defendants had themselves contributed to the

individual cases.¹⁶¹ The criticism should be directed instead to formulations of trade secret law which have led courts to explain their conclusions by reference to inconsistent maxims rather than clearly articulating the determinitive balance of interests.

The first matrix illustrates the manner in which the policies favoring trade secret protection vary greatly in strength in the different cases. As one moves from left to right on the matrix, the plaintiff's property interests become a less compelling basis for trade secret protection. Similarly, as one moves from the top to the bottom of the matrix, any breach of business ethics becomes less compelling.

With respect to some of the situations illustrated, a discussion of the circumstances which might weigh against trade secret protection may be unnecessary. This is not because those circumstances are unimportant, but because the need for trade secret protection is either so strong or so weak that competing interests will seldom be outcome determinative. Where the defendant acquired the plaintiff's information by improper means (the top row of the first matrix), the plaintiff should virtually always obtain trade secret protection against the defendant. While the line between proper and improper means is not absolute,162 acquisition by improper means is essentially an intentional, wrongful "taking" by the defendant as opposed to a disclosure in confidence by the plaintiff. A plaintiff's low-level property interest in the information and/or the need to ensure that legitimate competition by the defendant is not curtailed may severely limit the scope of the remedy in some such cases. However, the need to maintain business ethics is sufficiently strong to justify some level of trade secret protection whenever the trade secret has been intentionally taken.

Where the information has been acquired by proper means by the defendant, but during a confidential relationship or under an express understanding of confidentiality (the second and third lines of the first matrix), it is important to consider the strength of the competing considerations which favor per-

development of the information while employed by Electro-Craft and had not signed trade secret agreements.

^{161.} See, e.g., Note, supra note 11, at 996 (questioning courts' tendancies to "fall back on the basic feel" of the case).

^{162.} See RESTATEMENT (FIRST) OF TORTS § 757 comment f; Uniform Act, supra note 62, § 1 comments 1-5, at 541.

mitting the defendant to utilize the information. The second matrix illustrates the balance of competing interests in some such circumstances.

Where the information has been disclosed or developed in the course of an employer/employee relationship, the trade secret protection afforded must not be so extensive that it unreasonably impairs the ability of the employee to engage in his chosen trade.¹⁶³ Similar considerations apply when the information has been acquired or developed by a fabricator or independent contractor.¹⁶⁴ The court must consider those factors which weigh in favor of permitting an employee or independent contractor to use the information in the course of other pursuits. This includes consideration of the extent to which the defendant's knowledge of the information is attributable to his own level of experience and expertise, rather than to a specific disclosure made to him by the plaintiff.¹⁶⁵ Another way of viewing this issue is to focus upon whether the information, to the extent it relates to the plaintiff's product or processes, is specific rather than general.¹⁶⁶ Arguably, however, the most significant factor is simply the extent to which protection of the claimed trade secret will, in effect, restrict an ex-employee's or independent contractor's freedom to continue working in his chosen trade or business.¹⁶⁷ In the employment context, this consideration is often characterized as a determination of whether the information in question is something other than the general skill and experience of the employee which the employee is free to use elsewhere.¹⁶⁸

On the other hand, the right of an employee to utilize information which courts characterize as his skill is not unlimited. The Minnesota Supreme Court has indicated that restrictions

^{163.} Cudahy Co. v. American Laboratories, Inc., 313 F. Supp. 1339, 1345 (D. Neb. 1970); *Pressure Science*, 413 F. Supp. at 629; *Koehring*, 254 F. Supp. at 338-39; Stocker Hinge Mfg. Co. v. Darnell Indus. Inc., 61 III. App. 3d 636, 644, 377 N.E.2d 1125, 1131 (1978); *Van Products*, 419 Pa. 248, 261, 213 A.2d 769, 776.

^{164.} See, e.g., RTE Corp. v. Coatings, 84 W.2d 105, 105 267 N.W.2d 226, 226 (1978); National Tile Board Corp. v. Panelboard Mfg. Co., 99 A.2d 440 (N.J. Super. 1953); Sarkes Tarzian, 166 F. Supp at 268.

^{165.} See, e.g., Jostens, 318 N.W.2d at 702. See generally Note, Developments In The Law-Competitive Torts, 77 HARV. L. REV. 888, 950-51 (1964); 2 L. ALTMAN, CALLMANN UN-FAIR COMPETITION TRADEMARKS AND MONOPOLIES § 14.24 (4th ed. 1982).

^{166.} Van Products, 419 Pa. 248, 261-62, 213 A.2d at 776-77.

^{167. 2} L. ALTMAN, CALLMAN UNFAIR COMPETITION TRADEMARKS AND MONOPOLIES, § 14.24 (4th ed. 1982).

^{168.} Jostens, 318 N.W.2d at 701-02; Miller, 298 N.W.2d at 459.

should not fetter an employee's right to apply to his own best advantage the skills and knowledge acquired by the overall experience of his previous employment,¹⁶⁹ even though they may include "techniques which are . . . 'skillful variations of general processes known to the particular trade.' "¹⁷⁰ However, the same court has also pointed out that "knowledge gained at an employer's expense, which takes on the characteristics of a trade secret and which would be unfair for the employee to use elsewhere, is deemed confidential and is not to be disclosed or used."¹⁷¹

The freedom of an ex-employee or independent contractor to carry on in his chosen trade is not only important to the defendant, but to the interests of society in free competition and the free flow of ideas, information and commerce. Thus, in situations where the balance of competing interests creates a close question, courts can be expected to favor the employee.¹⁷² In close cases, the courts are hesitant to restrain an employee or independant contractor unless he clearly knew that, in accepting access to, or creating, the trade secret during his relationship with the plaintiff, he was accepting a restriction upon his freedom to ply his trade.173 Arguably, in such situations the plaintiff can restrain an ex-employee or independent contractor from using the confidential information in question only under a valid secrecy or noncompete agreement. This is the only way one can reconcile the suggestion of the Minnesota Supreme Court in United Wild Rice that under some circumstances non-trade secret information may be protectable by means of a written noncompete agreement¹⁷⁴ with that same court's earlier statement that an employer could not use a noncompete agreement to prevent an ex-employee from utilizing information which was no more than the skill of the

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173. See, e.g., Structural Dynamics, 401 F. Supp. at 1102; Motorola, 366 F. Supp 1173; c.f. Electro-Craft, 332 N.W.2d at 890.

174. United Wild Rice, 313 N.W.2d at 634.

^{169.} Miller, 298 N.W.2d at 459, quoting Reed, 40 N.Y.2d at 307, 353 N.E.2d at 593, 386 N.Y.S.2d at 680.

^{170.} Id.

^{171.} Jostens, 318 N.W.2d at 702.

^{172.} For a recent example in a case involving an application for preliminary injunction under the Uniform Act, see Pfizer, Inc. v. IC1 Americas Inc., No. 7785 (Del. Ch. Nov. 21, 1984); see also. Van Products 419 Pa. 261, 213 A.2d 769; Sundstrand Corp. v. Hydro-Tech Corp., 204 U.S.P.Q. (BNA) 677 (D. Colo. 1979); c.f. Electro-Craft. 332 N.W.2d at 890.

employee.175

Except in such close cases, the existence or lack of a restrictive employment agreement should not affect the outcome of a case. Where the balance of interests weighs in favor of trade secret protection, an employer is entitled to that protection without such an agreement. Where the balance of interests weighs against trade secret protection, an agreement which would purport to provide such protection should be declared void as against public policy.¹⁷⁶

Where the information in question has been developed by the defendant as either an employee or an independent contractor, the plaintiff will rarely be able to restrict its use by the employee or contractor. One court has suggested that the employee who developes the information has a right equal to that of his employer to use or disclose it for his own benefit.¹⁷⁷ Other courts have taken the position that the development of the information by an employee-defendant is a compelling consideration weighing against trade secret protection to the employer.¹⁷⁸

Arguably, the employer can obtain protection against disclosure or use by the one who actually developed the information

178. Sunstrand Corp., 204 U.S.P.Q. (BNA) at 684. See, e.g., Pressure Science, 413 F. Supp. at 629; Cudahy, 313 F. Supp. at 1351.

^{175.} Miller, 298 N.W.2d at 459.

^{176.} Because both the common law and the Uniform Act permit a duty of confidentiality to be created by contract, see RESTATEMENT (FIRST) OF TORTS § 757 comment j; UNIFORM ACT, supra note 62, at 555, commissioner's comment to § 7, the courts have often failed to actually declare non-disclosure agreements void even where the balance has weighed against protection. Nevertheless, they have usually achieved this result, although sometimes at the risk of strained constructions of facts or law. Good examples are a series of three decisions by the Indiana Court of Appeals in two different cases brought by the same insurer against ex-employees. In these decisions, the court of appeals went to great lengths to find that certain documents complied in whole or in part by the defendants while employed by the plaintiff could not constitute a trade secret under the Uniform Act and also did not fall within the scope of what appears to be two very comprehensive non-disclosure type agreements. See, e.g., College Life Ins. Co. of Am. v. Austin, 466 N.E.2d 738, 742 (Ind. Ct. App. 1984); Steenhoven v. College Life Ins. Co. of Am., 460 N.E.2d 973 (Ind. Ct. App. 1984) (denying petitioner rehearing); Steenhoven v. College Life Ins. Co. of Am., 458 N.E.2d 661 (Ind. Ct. App. 1984). It is clear, however, that no revision of the insurer's non-disclosure agreement and/or showing that the documents in question do not meet the liberal trade secret test contained in the Uniform Act will lead the Indiana Court of Appeals to find this plaintiff is entitled to the protection it is seeking against its ex-employees. The circumstances create a balance of interests which weigh too strongly in favor of the employees. Since that message is implicit in the court's decisions, there is no good reason that it is not expressed in the opinion. 177. Wexler v. Greenberg, 399 Pa. 569, 582-83 160 A.2d 430, 437 (1960).

only if his property interest is compelling or if that interest is at least reasonably substantial and he has a valid, written agreement with the employee or independent contractor. In order to have a valid agreement restraining an employee in Minnesota, the plaintiff-employer must have given real consideration to the employee,¹⁷⁹ the agreement must be sufficiently specific,¹⁸⁰ and the employee must have fair notice of the extent of the contractual restraint, either through the language of the agreement or otherwise.¹⁸¹

The matrices assume that the defendant knows of the relevant circumstances at the time he acquires the information in question. If he does not, he cannot be held accountable for disclosure or use of the trade secret until he acquires such knowledge. A difficult issue arises where a third party entrepreneur pays value for the information or otherwise changes his position before receiving notice that the one through whom he obtained it has breached a duty of confidence or that the plaintiff's rights have been infringed. Under the Restatement view, there is no misappropriation under such circumstances.¹⁸² Under the Uniform Act, use or disclosure after the defendant has learned of the relevant circumstances constitutes misappropriation in most instances.¹⁸³ Arguably, neither of these results is totally appropriate. The better view is that any use or disclosure by the defendant after he receives knowledge of the relevant circumstances should constitute misappropriation, but the extent to which the defendant has given value or otherwise changed his position prior to receiving such knowledge should strongly influence the extent to which the defendant can be enjoined and/or must pay a royalty or damages for further use.¹⁸⁴ To a large extent, proposed amendments to the Uniform Act would bring about this result.¹⁸⁵

(a) Except to the extent that a material and prejudicial change of position before to [sic] acquiring knowledge or reason to know of misappropriation

^{179.} See Jostens, 318 N.W.2d at 703-04 (mere continuation of employment is not enough).

^{180.} Electro-Craft, 332 N.W.2d at 903.

^{181.} Jostens, 318 N.W.2d at 702 (citing R. ELLIS, TRADE SECRETS 79 (1953)); Aries, 366 N.W.2d at 366.

^{182.} See Restatement (First) of Torts § 758.

^{183.} UNIFORM ACT, supra note 62, § 1, at 542.

^{184.} See id. commissioners comment to § 2(b), at 545.

^{185.} Amendments to the Uniform Trade Secrets Act were approved by the National Conference of Commissioners on Uniform State Laws at its annual conference in August, 1985. The section on Damages was amended as follows:

C. What is the Nature and Extent of the Remedy to Which the Plaintiff is Entitled?

Under both the common law¹⁸⁶ and the Uniform Trade Secrets Act,¹⁸⁷ courts may fashion a remedy appropriate to the specific trade secret misappropriation. The court's discretion, however, should not be unlimited. In stark contrast to cases like *Jet Spray Cooler*¹⁸⁸ and *Aries Information Sys., Inc. v. Pacific Management Sys. Corp.*,¹⁸⁹ other decisions have used rational guidelines in fashioning an appropriate remedy under the particular facts and circumstances of a given case. Similarly, the Uniform Act and the comments thereto reflect a conscious effort by the drafters to codify "the results of the better reasoned cases concerning remedies for trade secret misappropriation."¹⁹⁰

As with other elements of trade secret claims, distortions have occurred where courts have focused solely upon one of the policies underlying trade secret protection when formulating the appropriate remedy. When courts have focused solely upon maintaining business ethics, they have suggested that, as long as a trade secret was initially misappropriated, any subsequent use by the defendant continues to be punishable regardless of whether anyone else could properly develop and use that information. Such lopsided reasoning has led to perpetual injunctions¹⁹¹ or an accounting for all of the defendant's profits for over a decade¹⁹² where the plaintiff was not using the information and anyone, including the defendant, could properly duplicate the same information without investing substantial time or effort.

renders a monetary recovery inequitable, a complainant is entitled to recover damages for misappropriation. Damages include both loss caused by misappropriation and unjust enrichment caused by misappropriation that is not taken into account in computing the loss. In lieu of damages measured by any other methods, damages caused by misappropriation may be measured by imposition of liability for a reasonable royalty for a misappropriator's unauthorized disclosure or use of a trade secret.

Id. § 3(a) (West Supp. 1986).

^{186.} See supra text accompanying note 86.

^{187.} UNIFORM ACT, supra note 62, §§ 2-4.

^{188. 377} Mass. at 159, 385 N.E.2d at 1349.

^{189. 366} N.W.2d 366 (Minn. Ct. App. 1985).

^{190.} UNIFORM ACT, supra note 62, Commissioner's Prefatory Note, at 537-38.

^{191.} E.g., Elcor Chemical Corp. v. Agri-Sul, Inc., 494 S.W.2d 204, 214 (Tex. Civ. App. 1973).

^{192.} Jet Spray, 377 Mass. at 183, 385 N.E.2d at 1363.

Courts focusing solely upon the intellectual property element of trade secret protection will view the objective as compensating an aggrieved plaintiff for the difference in its position before and after misappropriation.¹⁹³ Under this view, if a plaintiff cannot show damages in fact, he may not be able to recover damages at all.¹⁹⁴ It might be possible to measure damages by the defendant's actual or constructive profits resulting from the misappropriation, but only to the extent the award is a reasonable approximation of lost profits suffered by the plaintiff.¹⁹⁵ This view does not take into account the unjust enrichment which the defendant has gained, and which he should disgorge regardless of the actual damage suffered by the trade secret owner.¹⁹⁶

Since trade secret law has the dual aim of protecting intellectual property interests and maintaining business ethics, an award of compensatory damages should compensate the plaintiff and, at the same time, ensure that the defendant has disgorged any unjust enrichment.¹⁹⁷ On the other hand, the award should not result in a double recovery¹⁹⁸ or otherwise

195. See B & Y Metal, 279 N.W.2d at 816-17; Cherne, 278 N.W.2d at 81; cf. National School Studies, Inc. v. Superior School Photo Serv., Inc., 40 Wash. 2d 263, 276, 242 P.2d 756, 763 (1952) (not using defendant's profit where methods of doing business were dissimilar). In B & Y Metal, discussing alternative means of measuring damages for defendant's violation of a noncompete agreement, the court explained:

Although, as a general rule, damages for the breach of a covenant not to compete are to be measured by the plaintiff's loss, not by the defendant's gain, see generally, Annotation, 127 A.L.R. 1152, there are circumstances in which the defendant's gain may be useful in determining the loss sustained by plaintiff. See Cherne Industrial, Inc. v. Grounds & Associates, Inc., 278 N.W.2d 81 (Minn. 1979); North Pacific Lumber Co. v. Moore, 275 Or. 359, 551 P.2d 431 (1976). In Cherne, we affirmed an award of damages based on the defendant's gain from the violation of a covenant not to compete. In that case, however, the plaintiff's profit margin was only applied to that portion of the defendants' gross income that derived from the plaintiff's former or prospective customers. In contrast, in the instant matter. B & Y did not undertake to prove what percentage of Ball's gross sales were made to B & Y's customers. There are about 10 other competitors in the market, and undoubtedly some of Ball's sales are attributable to business taken from these other competitors.

B & Y Metal, 279 N.W.2d at 816 (emphasis supplied).

196. As to awarding the defendant's unjust enrichment, see generally Annot., 170 A.L.R. 449, 491-92; Sperry Rand, 447 F.2d at 1392.

197. UNIFORM ACT, supra note 62, § 3 and commissioners' comment at 546-57.

198. For cases where there appear to have been double recoveries, see *Cherne*, 278 N.W.2d at 81 (damages awarded for wrongful use during the two year period the information was a protectable trade secret coupled with a two year injunction); *Aries*,

^{193.} Sperry Rand Corp. v. A-T-O, Inc., 447 F.2d 1387, 1393 (4th Cir. 1971).

^{194.} Basic Chemicals Inc. v. Benson, 251 N.W.2d 220, 233 (Iowa 1977); B & Y Metal Painting v. Ball, 279 N.W.2d 813, 816-17 (Minn. 1979); *cf. Sperry*, 447 F.2d at 1393.

exceed the amount necessary to achieve this dual goal. Accordingly, an award of compensatory damages should be the greater of the plaintiff's damages or the defendant's unjust enrichment, rather than a recovery of both.¹⁹⁹

Recognition must also be given to the policies of free competition and spread of technology, which limit a trade secret owner's protectable interest to the lead time or "head start" which his trade secret represents. Under either the common law or the Uniform Act, injunctive relief and/or monetary recovery, whether measured by the plaintiff's loss or the defendant's gain, should relate only to the period during which a defendant would not have been able to develop his product or process but for using the plaintiff's trade secret. This is the socalled "head start" period.²⁰⁰ As explained by the Commissioner's Comment to section 3 of the Uniform Act: "[a]ctual damage to a complainant and unjust benefit to a misappropriator are caused by misappropriation during this time alone."²⁰¹

Moreover, injunctive relief should be confined in scope to prevent a defendant's use of only the trade secret.²⁰² Similarly, compensatory damages, even when measured by the defendant's profits, should be limited to the actual or constructive profit fairly attributable to the misappropriation of that information which constitutes the plaintiff's trade secret. In instances where a product or process is composed of many components and only one component infringes upon a plaintiff's proprietary rights, the reasonable royalty standard²⁰³ is

199. See 2 R. MILGRIM, MILGRIM ON TRADE SECRETS § 7.08[3], at 7-231; 2 L. ALT-MAN, CALLMANN UNFAIR COMPETITION TRADEMARKS AND MONOPOLIES § 14.45 (4th ed. 1982); Sperry, 447 F.2d at 1392-93.

200. UNIFORM ACT, supra note 62, § 3, at 546-47 commissioners' comment; see also Structural Dynamics, 401 F. Supp. at 1118; Carboline Co. v. Jarboe, 454 S.W.2d 540, 553 (Mo. 1970); 1 R. MILGRIM, MILGRIM ON TRADE SECRETS § 7.08[3] at 7-228.

201. UNIFORM ACT, supra note 62, § 3, at 547 commissioners' comment.

202. See supra, note 33 and accompanying text.

203. See, e.g., University Computing Co. v. Lykes-Youngstown Corp., 504 F.2d 518, 536-37 (5th Cir. 1974); Structural Dynamics, 401 F. Supp. at 1120. This approach

³⁶⁶ N.W.2d at 366 (court approved the award of both plaintiff's lost revenues including future royalties, and defendant's revenues during the period of misappropriation, where defendant's revenues were apparently attributable to the same sales constituting the plaintiff's lost sales). See also UNIFORM ACT, supra note 62, § 3, at 541 and commissioners' comment (discussing double counting in Telex Corp. v. IBM Corp., 510 F.2d 894 (10th Cir.) (per curiam), cert. dismissed, 423 U.S. 802 (1975) (declaring "the Act adopts an express prohibition upon the counting of the same item as both a loss to a complainant and an unjust benefit to a misappropriator").

the appropriate means of apportioning profits when a profit measure is warranted.

The appropriate method of applying a royalty measure is demonstrated in *Structural Dynamics Research Corp. v. Engineering Mechanics Research Corp.*,²⁰⁴ where the plaintiff claimed misappropriation of trade secret computer programs. The *Structural Dynamics* court first determined that a constructive profit margin of twenty percent was reasonable. It then reduced the figure to fifteen percent, so that the margin would reflect only the portion of the defendant's software which the plaintiff's software represented. The court then applied this reduced margin to the gross receipts attributable to defendant's marketing of its software during the head start period.²⁰⁵

Both the common law and the Uniform Act recognize that, in appropriate cases, punitive damages may be awarded. The standard to be applied in determining whether punitive damages are to be awarded should be the same standard applied in other areas of the law.²⁰⁶ On the other hand, since the protection afforded trade secret owners is an exception to, and limited by, the policy encouraging the spread of technology, it is important that the potential punitive damages a defendant might face not be unlimited. Thus, the Uniform Act limits any punitive damages to twice the amount of compensatory damages.²⁰⁷

CONCLUSION

Absent the protections afforded by trade secret law, there would be little incentive to invest in research and development where the results may not be protectable by copyright or patent. As applied in the modern world of high technology, the overriding social interest to be served by the law of trade secrets should be to promote technological advance by encouraging investment in innovation and maintaining proper standards of business ethics without unduly hampering the ability

is precisely that used in patent infringement cases. *See* Broadview Chem. Corp. v. Loctite Corp., 311 F. Supp. 447, 452 (D. Conn. 1970); Egry Register Co. v. Standard Register Co., 23 F.2d 438, 443 (6th Cir. 1928).

^{204. 401} F. Supp. 1102 (E.D. Mich. 1975).

^{205.} Id. at 1119-20.

^{206.} In Minnesota, the common law standard has been codified. MINN. STAT. § 549.20 (1984).

^{207.} UNIFORM ACT, supra note 62, § 3(b), at 546.

of creative individuals to earn a living by working in their own fields of expertise. In pursuit of that goal, courts must be careful to maintain a proper balance between a developer's interest in the exploitation of his own discovery, on the one hand, and society's competing interest in the free flow of ideas, information, and commerce on the other.

This can best be done under a legal framework of trade secret law which emphasizes the balance of policy interests to be served, rather than considering the property and conduct aspects of any given case in artificial isolation. The court system is adequately equipped to deal with the technical aspects of trade secret cases involving new technology, and trade secret law can serve as a flexible and yet reasonably uniform and predictable means of protecting legitimate interests in new technology if courts recognize and maintain this balance. William Mitchell Law Review, Vol. 12, Iss. 3 [1986], Art. 6