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AN OVERLOOKED SITE OF TRADE SECRET AND OTHER INTELLECTUAL PROPERTY LEAKS: ACADEMIA

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## **\*242 I. Introduction**

Intellectual property is critical to corporations of all sizes and can be highly significant to universities, some of which derive substantial income and other benefits from faculty inventions and writings. Unfortunately, universities, while often assisting corporations in developing intellectual property rights, can also be sites of potential leaks of those same intellectual property rights, particularly rights relating to trade secrets. Corporate clients that are now becoming involved in research arrangements with universities or sending their employees to universities for additional education may be unaware of the potential risks to their intellectual property. Intellectual property leaks in academia may be quiet and the leaks may be slow. The leaks may be made by culprits who will never be identified or by culprits who should be obvious to an alert viewer, but who are ignored. This article is designed to help attorneys advise their clients about these potential risks.

At the root of this situation is the unique dual position that universities occupy in the United States: as incubators for students who will become the leaders of society and as incubators for ideas and products of present value to business and the military. Innovative ideas are conceived and developed by faculty at universities with the aid of student research assistants and postdoctoral fellows. The return to school of currently employed adults adds another dimension to this situation, and the appointment of students to corporate internships adds a third dimension. Finally, the presence of numerous international students adds a fourth dimension.

This article explores each of these dimensions and provides an overview of three topics that bear on proprietary information in the academic setting: university-industry research, certain ordinary classroom activities, and competitive intelligence. This article concentrates on activities at Texas universities, and some of the anecdotes noted below are based on actual occurrences at these universities. Certain details have been changed or omitted to prevent identification of those involved. Theft of patentable intellectual property during the academic peer review process is another issue deserving attention. However, this topic has been handled ably elsewhere and will not be covered in this article.<sup>1</sup> This article also raises certain questions. Why are universities a potential source of intellectual property misappropriation? Who are the hidden and the obvious culprits? What can universities and corporations do to safeguard their intellectual property against potential leaks by these sources? What legal recourse is available when trade secrets are misappropriated in conjunction with university-based activities? The answers to these questions may provide legal practitioners with the basis for further investigation. The answers may also serve as a warning signal: pragmatic measures can and should be taken to help prevent clients **\*243** from suffering the financial losses that often accompany the theft of all types of intellectual property, particularly the loss of trade secrets.

## **II. Intellectual Property in Academia**

In order to advise clients on the means available for protecting their intellectual property rights in academic areas, legal practitioners should fully understand the relationship between universities and intellectual property, as well as have an overview of the academic culture and various university-industry research arrangements. Legal practitioners would also do well to recognize the need to educate in-house colleagues at universities, as well as professors and students at all levels in classrooms and research laboratories, on the legal necessity of protecting trade secrets and other forms of intellectual property.

Basic research has traditionally been the province of universities, while corporations have traditionally brought associated products to market. Today, universities may be involved directly or indirectly in every step of bringing a product to market, from idea to invention to patent to product on store shelves to royalties in bank accounts. Various university-industry arrangements have evolved to execute this comprehensive process. These arrangements are examined later in this article.

Intellectual property developed at universities is important and can be lucrative. For instance, “the Cohen-Boyer patent for

recombinant DNA technology ... [involved] over 200 licensees and earn[ed] Stanford and the University of California over \$100 million in royalty income.”<sup>22</sup> This staggering sum demonstrates why it is “desirable to own an idea or technology early in its history, at a stage that in earlier times would have been characterized as basic research.”<sup>23</sup>

### **III. The Academic Culture**

#### **A. The Pajaro Dunes Conference**

In universities, unlike industry or the military, the free flow of ideas is paramount. Open discussion in classrooms and the timely publication of research results exemplify that flow. How does such openness impact proprietary information? An understanding of this issue necessitates a look at a historical document: the draft statement of the seminal Pajaro Dunes Conference, which took \*244 place in the spring of 1982.<sup>4</sup> This document touches on many major concerns and provides a useful overview of the conditions surrounding proprietary information in the academic setting.

The presidents of five leading research universities--Stanford, Harvard, Massachusetts Institute of Technology, California Institute of Technology, and University of California--hosted three dozen “administrators, faculty scientists, and industry representatives” for a three-day meeting to explore the basic issues facing universities in their collaborative efforts with industry and government.<sup>5</sup> The participants in the conference acknowledged that “the chain of progress from basic research to useful applications necessarily involves universities and industry.”<sup>6</sup> They also observed that “the preservation of the independence and integrity of the university and its faculty” were paramount issues.<sup>7</sup>

Of major concern was the nature of the “research agreements and other arrangements” universities might sign with corporations.<sup>8</sup> At stake was the possibility of “secrecy that will harm the progress of science,” and pressures that might divert professors from pursuing their true research interests.<sup>9</sup> Other issues of concern were circumvention of the “primary educational and research missions” of universities, compromise of “the university as a credible and impartial resource,” and harm to “the educational experience of students and postdoctoral fellows.”<sup>10</sup>

A close reading of the Pajaro Dunes document yields the following conclusion: What universities are trying to protect in university-industry projects are “the traditions of open research and prompt transmission of research results.”<sup>11</sup> These traditions include the freedom to publish, present at conferences, and discuss ideas formally or informally with colleagues. These traditions also include classroom discussions and permitting undergraduate and graduate students and postdoctoral fellows access to research procedures, processes, and results.

While university officials at the Pajaro Dunes Conference upheld the academic tradition of openness, they recognized two special situations that arise at universities: “receipt of proprietary information from a sponsor,” which they did not explore, and \*245 patent licensing.<sup>12</sup> As the Conference draft points out, the federal government “allow(s) universities to own and license patents on discoveries made in the course of research financed by government grants and contracts.”<sup>13</sup> The conference participants also addressed other patent issues such as granting “exclusive or nonexclusive licenses” to industry, the pursuing of patents in a timely manner, and “““universities’ rights to royalty income.”<sup>14</sup>

A few months after the Pajaro Dunes Conference, the American Association of University Professors (AAUP) issued a major report entitled, “Corporate Funding of Academic Research,”<sup>15</sup> which briefly examined “six kinds of contact” between universities and corporations, including “Faculty Consulting,” ““Industrial Associates Programs,” “Research Consortia,” “Research Centers,” ““Research Partnerships,” and for-profit corporations formed to commercialize the work of professors.<sup>16</sup> The report also addressed two potential problem areas: “delays in publications” to accommodate patent applications and to verify the absence of corporate “proprietary information”; and interference with professors’ selection of areas of research.<sup>17</sup> The report concluded with recommendations for universities to maintain their tradition of free inquiry in an atmosphere of university-corporate cooperation.<sup>18</sup>

#### **B. University-Industry Research Arrangements**

Research and development activity at universities is a well-known fountain of ideas that may mature into viable commercial or military products. Corporations and government agencies fund university-based research for precisely this reason. Universities also stand to benefit financially from equity ownership of start-up companies launched by faculty members or

from royalties on patents on faculty members' inventions.<sup>19</sup> Various university-industry research arrangements have evolved to accommodate this activity. Four such arrangements are discussed in this section. Because of the number and variety of entities and individuals involved, each arrangement provides opportunities for intellectual property leaks or misappropriation.

\*246 First, major universities may operate research centers or technology parks where professors work on joint projects with industry counterparts.<sup>20</sup> In Texas, these parks include the Texas A&M University Research Park<sup>21</sup> and the University of Texas at Austin's Montopolis Research Center and Balcones Research Center.<sup>22</sup>

Second, universities collaborate in research sponsored by non-profit agencies. An example is the Houston Advanced Research Center (HARC), which supports commercially viable, collaborative scientific research by corporations, government agencies, and ten universities, including seven from Texas.<sup>23</sup> HARC also offers many professional and technical services to start-up companies, including transfer of emerging technologies to the private sector and access to university professors and student interns.<sup>24</sup>

Third, universities may form direct alliances with outside agencies. For instance, in 1998 the University of Houston and NASA formed an alliance to act as an incubator for the development of marketable products from NASA "innovations" and the creation of viable new businesses associated with those products.<sup>25</sup> Obtaining patents--with the attendant risks--is a major activity of the incubator.<sup>26</sup> This alliance allows NASA to draw on the university-based expertise of "faculty members whose research complements the function of the technology," as well as that of "students in ... [the University of Houston's] graduate business program and the resources of its small business development office."<sup>27</sup>

Fourth, universities and corporations may form consortia. In a consortium, "[o]ne or more universities may arrange with several companies to do research in an area of interest to the companies. The member companies pay a yearly fee to support the research, and they share in its results."<sup>28</sup> A spokesperson for W.R. Grace once noted that "the value for a company to join a consortium is inversely proportional to \*247 the amount of knowledge it has about the subject--creating the possibility of proprietary technology leaking to competition if one participates actively."<sup>29</sup> This statement clearly indicates the danger posed to proprietary information in an academic setting.

No matter which arrangement a corporation or university selects, the critical aspect of the relationship is the generation of useful ideas, some of which may eventually become commercially viable products. Concern over the protection of university-generated proprietary information, including information in the earliest stages of evolution, is clearly appropriate.

## IV. Universities and Proprietary Information

### A. Betrayal of Proprietary Information

How closely do funding sources and universities monitor the dissemination of fledgling ideas or the identity of those who work on research projects? One commentator tells a cautionary story about the Industrial Liaison Program at the Massachusetts Institute of Technology (MIT). "Annually, MIT, the nation's most prestigious science school, received over \$500 million of federal funding and produced a cornucopia of new ideas."<sup>30</sup> Corporate participants at MIT included American and foreign companies, particularly Japanese companies, at least one of which benefited in a major financial way from the relationship. "Kogi Kobayashi, then the chairman of the NEC Corporation, credited his company's success in cracking the computer market to his access to MIT research."<sup>31</sup>

This commentary echoes the testimony of former MIT professor David Noble before the U.S. Congressional Committee on Government Operations, Subcommittee on Human Resource and Intergovernmental Operations on June 13, 1989. Noble noted the claim of MIT President Paul Gray that the university's Industrial Liaison Program (ILP) offered corporate members "a window through which to view the developments of technological research ... which assists them in leapfrogging over the technical achievements of their foreign competitors." DD"<sup>32</sup>

However, Noble emphasized an inconsistency in Gray's description of the ILP: "nearly all the member corporations of the ILP were multinationals with no necessary allegiance to the United States, ... fully half of them were foreign, ... 57 of them \*248 were major Japanese competitors, and ... the ILP had for nearly a decade been operating an overseas sales office in downtown Tokyo."<sup>33</sup> Noble also noted Gray's statements that ILP members, both domestic and foreign, had access to

research that included “*pre-published* materials” and “site visits to MIT labs and professors.”<sup>34</sup> The implication is that these pre-published materials and site visits are a source of ideas used by foreign competitors to undercut commercial efforts of U.S. corporations. Noble’s primary message was that MIT’s ILP was using our tax dollars for “subsidizing foreign competition and productivity.”<sup>35</sup>

The degree of university-industry collaboration at MIT and elsewhere has spawned a cadre of university administrators to deal with corporations, grant applications, and legal paperwork. The value of these individuals to those collecting competitive information must not be overlooked. As one expert advised, “[t]hrough a liaison office, you can locate the university scientist who may be involved in the R&D work you need to know about.”<sup>36</sup> The expert then noted the Industrial Liaison Program at the Massachusetts Institute of Technology as an example.

## B. Trade Secrets: A Common Leak

The return of millions of adults to university classrooms brings both opportunity and risk for the individuals as well as corporate America. The returning students gain by honing existing skills and acquiring new ones, while employers gain by having more highly educated employees. However, corporations are at the same time risking exposure of trade secrets by their employees in the classroom or laboratory.

### 1. Trade Secrets Defined

The encouragement of invention is the public policy that supports both federal intellectual property laws, such as copyright and patent laws, and state laws, such as those addressing trade secrets.<sup>37</sup> In Texas, the seminal case on wrongful disclosure of \*249 trade secrets is *Hyde Corp. v. Huffines*.<sup>38</sup> In *Huffines*, Texas formally adopted section 757 of the Restatement of Torts,<sup>39</sup> the generally accepted definition of a trade secret:

A trade secret may consist of any formula, pattern, device, or compilation of information which may be used in one’s business and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process for manufacturing, treating or preserving materials, a pattern for a machine or other device or a list of customers .... A trade secret is a process or device for continuous operation of the business.<sup>40</sup>

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

To qualify as a trade secret, the information must be secret. Information generally known to the public or inside a particular industry typically is not afforded trade secret protection.<sup>42</sup> While the secrecy need not be absolute, it must be sufficient to confer an actual or potential economic advantage on one who possesses the information. Thus, the requirement of secrecy is satisfied if it would be difficult or costly for others to acquire and exploit the information without resorting to some form of wrongful conduct.

The holder of a trade secret must take measures to protect and maintain the confidentiality of the trade secret. Typical measures to protect trade secrets include agreements with licensees and financiers, nondisclosure agreements with employees during and after employment, warnings or notices on written materials, and physical \*250 security measures such as periodic security checks, closed-circuit monitors, and restricted access to computers and classified areas.<sup>43</sup>

Trade secret protection has been extended to a wide spectrum of information from customer information<sup>44</sup> to trash compacting systems.<sup>45</sup> While trade secrets are often equated with processes or product development, services are also protectible as trade secrets.<sup>46</sup> Unlike other forms of intellectual property such as a patent or copyright, a trade secret does not have a limited statutory life.<sup>47</sup> Furthermore, there is no need to file an application for registration of a trade secret to obtain protection.

In order to establish a cause of action for misappropriation of trade secret, one must demonstrate that:

- (1) a trade secret exists;

(2) the trade secret was either acquired by the defendant through a breach of a confidential relationship or discovered by improper means; and

(3) the defendant used or disclosed the trade secret without authorization from the plaintiff.<sup>48</sup>

To determine if a trade secret exists, courts generally consider the following factors:

(1) the extent to which the information is known outside of the owner's business;

(2) the extent to which the information is known by employees and others involved in the owner's business;

(3) the extent of the measures taken by the owner to guard the secrecy of the information;

(4) the value of the information to the owner and to its competitors;

(5) the amount of effort or money expended by the owner in developing the information; and

\*251 (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.<sup>49</sup>

However, none of these factors alone is dispositive. The court may select the factors it considers relevant and weigh those factors depending on the facts and circumstances in each case.

## **2. The Classroom and Research Laboratory: Mine Fields for Trade Secret Disclosure**

Once a court has determined that a trade secret exists, a court must next determine whether the trade secret was acquired through a breach of a confidential relationship or discovered by improper means. In the university setting, trade secrets and confidential relationships create two issues: first, the existence of a confidential relationship between an employer and employee, and the employee's awareness of the implied duty created by that relationship; and second, the existence or nonexistence of a confidential relationship between individuals in a classroom or between parties in a research agreement.

### **(a) Confidential Relationships**

The existence of a confidential relationship can be expressed or implied;<sup>50</sup> however, the confidence of one party reposed in the other must, in some fashion, be manifested, if not by words then by the act of the parties or the whole picture of their relationship. "A confidential relationship is a two-way street: if the disclosure is made in confidence, the "disclosee" should be aware of it."<sup>51</sup> Technical fiduciary relationships between partners, principles and agents, and joint venturers are typical examples of confidential relationships.

In general, the existence of a confidential relationship is a question for the fact finder to determine.<sup>52</sup> As when determining the existence of a trade secret, a court must also determine the existence of a confidential relationship based on the facts of the individual case. As such, it is virtually impossible to have a complete list of factors examined by Texas courts to determine if such a relationship exists. The \*252 following, however, is a brief overview of some of the factors considered by Texas courts:<sup>53</sup>

(1) the existence of contract provisions requiring confidentiality and/or aimed at ensuring confidentiality;<sup>54</sup>

(2) the relationship between the parties;<sup>55</sup>

(3) the purpose and effect of the disclosure and the mutuality of benefits to be derived;<sup>56</sup>

(4) the absence of an agreement to hold the information in confidence or referring to a duty of confidentiality;<sup>57</sup>

- (5) the nature and the extent of the precautions taken by a trade secret's owner to protect the information;<sup>58</sup>
- (6) the degree to which the information has been placed in the public domain through voluntary disclosures;<sup>59</sup>
- (7) the existence or absence of statements informing the disclosee of the confidential nature of the information;<sup>60</sup>
- (8) references as to the reliance on and trusts reposed in one of the parties by the other;<sup>61</sup>
- (9) the length of time the parties knew or dealt with each other, including the extent and nature of their interactions during that time;<sup>62</sup> and

\*253 (10) the extent to which the information is confidential.<sup>63</sup>

In each case, the court must look at those factors it deems most relevant. For example, the absence of an agreement designating the information confidential or referring to a duty of confidentiality figured in *J.C. Kinley Co. v. Haynie Wire Line Service*.<sup>64</sup> In *J.C. Kinley Co.*,<sup>65</sup> the court considered the nature and extent of precautions taken by the trade secret's owner to keep the information from competitors and the general public, as well as the degree to which the information may have been placed in the public domain through voluntary disclosure.

In *Furr's Inc. v. United Specialty Advertising Co.*<sup>66</sup> and *Mercer v. C.A. Roberts Co.*,<sup>67</sup> courts found the absence of statements informing the discloser of the confidential nature of the information relevant to the resolution of the case. In *Furr's Inc.*,<sup>68</sup> the court also examined the extent to which the information was confidential.

### **(b) The Employee/Employer Relationship**

Regardless of their additional roles as students or research participants, employees still owe a certain loyalty to their employers. Under trade secret law, when a confidential relationship exists between parties such as employers and employees, the party (typically the employee) who discloses or uses a trade secret without authorization is considered to have breached its duty to the other party.<sup>69</sup> Generally, employees are under an implied duty not to use trade secrets they acquire during their employment in a manner adverse to the employer. However, this implied duty arises only when the employee knows or should know given the circumstances that the employer intends for the information to be confidential.<sup>70</sup>

An employee may have legitimate access to an employer's trade secret, and yet treat that information carelessly. An employee will be held liable for misappropriation of a trade secret if the trade secret was disclosed by the employee without the employer's consent and the employee knew or had reason to know that the information was obtained under circumstances that created a duty of confidence to the owner of the trade secret. Therefore, if the employee works in a secured \*254 environment, the employee will have a difficult time avoiding liability for misappropriating a trade secret.

In addition to the employee/employer context, a duty of confidence may also arise in two other situations. First, there may be an express promise of confidentiality between the parties prior to disclosure of the trade secret. Second, although no express promise is made, the person to whom the trade secret was disclosed knew or should have known that the disclosure was made in confidence, and the trade secret owner was reasonable in inferring that the person consented to an obligation of confidentiality. The second situation could conceivably apply to unsuspecting professors and classmates of students who reveal trade secrets and then expect everyone in the classroom to keep the information secret. The question as to the existence of a duty of confidence in this situation remains unresolved.

### **(c) Confidential Relationships and University Settings**

Although no cases have been identified in which employee-students misappropriated trade secrets, these individuals do reveal proprietary information to their professors and classmates. Imagine a weekend MBA program in which officers--now enrolled as students--of competing corporations gather in a classroom to discuss a particular issue. A brainstorming session ensues and ideas are tossed on the table. The students are unable to resist the opportunity to contribute: "here's how my

department handles that”; “we increased production 20% by ...”; “when that happens, I tell my people to ....”

Notes are taken. One student from Corporation *A* reflects on the comments of a classmate from Corporation *B*. Two days later, Corporation *A*’s top sales person calls on Corporation *B*’s premier customer to gather tidbits of information dropped by Corporation *B*’s sales staff or engineers concerning a product in development. The sales person reports back to Corporation *A*, and the ideas gathered from Corporation *B*’s customer filter into the research and development division of Corporation *A*. Six months later, Corporation *A* scoops Corporation *B* by bringing out the product early and Corporation *A* subsequently destroys Corporation *B*’s customer base.

Is this a far-fetched situation? No, it is simply a combination of one student’s carelessness, another student’s cleverness, a sales person’s investigation, and a company’s desire to grab market share. It also demonstrates the danger that employees pose to corporate trade secrets: “Employee (insider) threats to information constitute the most severe danger to business data.”<sup>71</sup> A similar incident actually \*255 occurred when an employee revealed critical business information “during a discussion at a training meeting attended by representatives of major competitors.”<sup>72</sup>

A less obvious place for leaks of proprietary information is the undergraduate classroom. Working students who return to college to complete their degrees possess insights and business information that traditional, youthful college students do not. Some undergraduate courses use student business problems for ordinary course assignments. In conjunction with these assignments, experienced students may inadvertently reveal trade secrets of their employers. For example, in one instance, a student who worked on the assembly line of a maker of medical devices provided detailed, enlarged photos of a quality control problem along with faulty product samples for the class to examine. The employer of this student may or may not have required the employee to sign a nondisclosure agreement, but regardless, the student owed the medical device maker a duty of confidence.

Why would an employee leave caution in the hallway when stepping into a classroom? Some students think of the university as a bell jar in which people honor all disclosed confidences. The academic environment encourages open discussion, and professors are treated with a type of deference that is associated with “Office-Based Trust,” in which the “[c]lient-trustors ... expect good will from the office or role.”<sup>73</sup> Therefore, in the presence of a professor, some students may assume that the classroom is a place where the confidentiality of their employers’ business and technical information will be maintained.

Other reasons an employee-student may reveal an employer’s trade secrets may include “carelessness, incompetence, or ignorance”<sup>74</sup> of the personal and corporate consequences of such revelations, or the student may feel that a university classroom is a special part of a world in which mundane precautions may be left behind. Alternatively, a student may be angry with an employer or former employer because of loss of employment or having been “““passed over for a promotion.”<sup>75</sup> An employee who is planning to leave the employer may no longer feel any loyalty to the corporation. When attorneys advise their corporate clients on safeguarding intellectual property, they should remind their clients of these types of employee motivations and the potential consequences of these motivations.

### \*256 3. The Pursuit of Competitive Intelligence

As stated above, a trade secret is only afforded protection if the information is “secret.”<sup>76</sup> The burden of proof that the information or trade secret is “secret” lies on the party claiming secrecy.<sup>77</sup> Although trade secret owners may fall victim to accidental or inadvertent disclosures, they may also face other formidable risks: professionals in the same or similar industries, and occasionally university students, engaged in industrial espionage and competitive intelligence. In academia, it is often difficult to determine whether proprietary information was acquired improperly or legally in the pursuit of competitive intelligence.

“Espionage is the use of illegal means to gather information.”<sup>78</sup> Competitive intelligence, on the other hand, is:

the process of monitoring the competitive environment. CI enables senior managers in companies of all sizes to make informed decisions about everything from marketing, R&D, and investing tactics to long-term business strategies. Effective CI is a continuous process involving the legal and ethical collection of information, analysis that doesn’t avoid unwelcome conclusions, and controlled dissemination of actionable intelligence to decision makers.<sup>79</sup>

Competitive intelligence has grown to include corporate offices charged with gathering such information; independent consulting services that perform comparable activities; books and journal articles about how to gather competitor information and how to resist the gathering efforts of others; an international professional association, the Society of Competitive Intelligence Professionals (SCIP), which promotes the use of ethical means of information gathering; and the SCIP's quarterly journal, *Competitive Intelligence Review*. At the same time, many books, journal articles, professional associations, and related journals have emerged that support the ethical behavior of businesses engaged in competitive intelligence.

The stimulus for this flurry of materials and activities is the continual corporate gathering of information about competitors. A large quantity of the information gathered is publicly available, for example, SEC filings, industry directories, and financial periodicals. Other information is collected from very different sources, \*257 including trade shows, research and development experts, and environmental impact statements.<sup>80</sup> A certain percentage of the information gathered may be trade secrets.

Competitive intelligence has been so successful that a counter-activity has arisen under the provocative name of "cloaking." As explained by a pair of experts in this field, "If a firm has a Cloaking Program, it continues to operate in the real world, but carefully controls critical information about itself to limit timely competitor access to it."<sup>81</sup>

### **(a) Competitive Intelligence and Universities**

The world of industrial espionage, competitive intelligence, and cloaking touches academia just as it touches the corporate world. A leading researcher in the field of competitive intelligence considers universities to be rich mines of information for corporations gathering facts about competitors. Professors engaging in research, development, and business consultation possess valuable primary information due to their work for individual corporations. Even business-school case studies may contain competitive intelligence. University centers that foster international study and collaborative commercial research by U.S. professors and international businesses--particularly Japanese and European--may also yield competitive intelligence.<sup>82</sup> Graduate school course catalogs may provide useful contact information about professors to those gathering competitive intelligence.<sup>83</sup>

As noted in the section, "Betrayal of Proprietary Information," the Japanese corporation NEC openly acknowledged its reliance on technology developed at MIT. One could argue that NEC was simply very successful at gathering competitive intelligence. One could also argue that some vigilance by the federal agencies funding research at MIT, or some cloaking by the university, might have been preferred, although one may question how compatible that would have been with the traditional openness of research at U.S. universities. In any case, NEC benefited from its university affiliation, perhaps in part because of "a salary bonus system, [in which] professors received greater incentives for consulting with foreign companies, even though they paid smaller fees than American corporations."<sup>84</sup>

It is ironic that the same universities that can be mined for competitive intelligence also sponsor MBA programs offering courses in both competitive intelligence and business ethics. For example, the Jesse H. Jones Graduate School of \*258 Administration at Rice University offers courses in both "Competitive Strategy" and "Business Ethics."<sup>85</sup>

### **(b) Academic Freedom and Competitive Intelligence**

Universities insist on academic freedom and simultaneously attempt to safeguard proprietary information through the kinds of policies and agreements noted below. At the same time, universities are being urged to "redesign and focus their MBA-type programs on competitive advantage, which, after all, is the implied (if not stated), purpose of many such programs .... More MBA programs could offer management intelligence courses that would suggest, if not stress, the crucial role of intelligence in a universal competitive environment."<sup>86</sup>

Only a short stretch of the imagination is required to produce a scenario involving a conflict between research and competitive intelligence at a single academic institution: an MBA class comprised of wily and experienced corporate employees undertakes a project in which they attempt to identify and exploit corporate-sponsored research being conducted in the university's labs. Such a scenario is a mere microcosm of the drama being played out daily in industry. The scenario demonstrates how corporations sponsoring university research could suffer intellectual property leaks and loss of trade secret protection.

## V. Protecting Proprietary Information in the Academic Environment

### A. Current Preemptive Action

Many universities use agreements to try to limit the premature dissemination of commercially viable ideas. For example, the web site of the Association of University Technology Managers (AUTM) contains sample policies, agreements, and contract clauses addressing dozens of topics, including nondisclosure, intellectual property, and patents. Texas universities represented at the site include Baylor College of Medicine, Texas A&M University System, University of Houston, University of Texas at Austin, University of Texas Health Science Center at Houston, University of Texas M.D. Anderson Cancer Center, University of Texas Southwestern Medical Center at Dallas, and University of Texas System Administration.<sup>87</sup>

\*259 One example of a non-disclosure confidentiality agreement is that of the University of Houston, whose agreement contains stringent language that protects “among other things, concepts, know-how and trade secrets relating to design, engineering, development, manufacturing, use, and sales of equipment and methods.”<sup>88</sup>

Unfortunately, these agreements are only as protective as the ethical stance, loyalties, and resources of the people signing them. A major study of industrial espionage, for example, reports widespread breaches of confidentiality by Japanese postdoctoral students working at the expense of Japanese corporations in the laboratories of U.S. universities: “When the researchers sent faxes back home written in Japanese, nobody around the university was the wiser. An awful lot of technology went back to Japan that way.”<sup>89</sup> This statement is also indicative of a larger issue: the overwhelming number of foreign students, particularly from Japan and China, in U.S. graduate schools. In 1991, “51 percent of U.S. doctorates in science and engineering were awarded to students from Pacific Rim countries, up from 21 percent just ten years earlier.”<sup>90</sup> In addition, foreign corporations will also send their “top people” to work in the labs of major research universities.<sup>91</sup>

Suppose one of these foreign students or “top people” works at a university trying to develop a new biomedical application in conjunction with a Texas corporation. Further, suppose that the student’s research is successful, and after the student returns to his or her native country, the student discloses the proprietary information to a local corporation. If the foreign corporation uses the misappropriated information to produce the product before the Texas corporation does, what protection is available to the Texas corporation?

The courts could use the forty-year-old decision *Welex Jet Services, Inc. v. Owen*.<sup>92</sup> In *Welex*,<sup>93</sup> a Texas Civil Court of Appeals held that a former employee is free to exercise his or her inventive powers, even if the inventive ideas were stimulated by the performance of duties for the employer. Would this forty-year-old decision truly be applicable to the above-hypothesized biomedical case? Could a student be considered a temporary employee of the corporation or the university for \*260 purposes of a joint university-industry research project? Alternatively, would the corporation fare better by invoking the Economic Espionage Act of 1996 (“EEA”)?<sup>94</sup>

Section 1832(a)(2) of the EEA mandates imprisonment for up to ten years and fines up to \$5,000,000 for a person who misappropriates:

a trade secret, that is related to or included in a product that is produced for or placed in interstate or foreign commerce, to the economic benefit of anyone other than the owner thereof, and intending or knowing that the offense will, injure any owner of that trade secret, knowingly ... without authorization copies, duplicates, sketches, draws, photographs, downloads, uploads, alters, destroys, photocopies, replicates, transmits, delivers, sends, mails, communicates, or conveys such information.<sup>95</sup>

This language appears to protect corporations against activities such as faxing research results to Japan as discussed above, as well as delivering to a competitor confidential material memorized by a thief.

According to section 1838(3) of the Economic Espionage Act of 1996, the EEA provides a broad definition of trade secret: the term ‘trade secret’ means all forms and types of financial, business, scientific, technical, economic, or engineering information, including patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques,

processes, procedures, programs, or codes, whether tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing if--  
(a) the owner thereof has taken reasonable measures to keep such information secret; and

(b) the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by the public ....

How far back in the product development cycle does this definition reach with reference to "economic value, actual or potential?" Does it cover university-originated ideas at various stages of commercial usefulness? No cases have been identified that address these questions.

## **B. Prosecuting the Leak**

The owner of a trade secret misappropriated in an academic setting must first establish the existence of the trade secret. As discussed earlier, Texas courts look at a variety of factors when determining whether proprietary information is entitled to \*261 trade secret protection.<sup>96</sup> Next, the owner must demonstrate that the defendant acquired the trade secret either through a breach of a confidential relationship or by another improper means, and that the defendant used or disclosed the trade secret without authorization.<sup>97</sup> A defendant who is an employee or competitor as well as a university student and/or intern is fully liable for misappropriating trade secrets.

If a case involves a leak or misappropriation of information from a university-industry research arrangement, the first step is to examine whether the information was acquired by a breach of a confidential relationship or by improper means. If the information was not acquired by improper means, the next step is to determine whether a written agreement exists between the parties. The terms of the agreement must be closely examined to determine whether they expressly create a confidential relationship. If no agreement exists, one should examine the parties' relationship using the factors examined by Texas courts to determine if a confidential relationship exists.

A suit arising from actions that occur in a classroom raises even more complex issues. If a trade secret is misappropriated as a result of student behavior, the same issues must be examined as with any trade secret misappropriation. When the cause of action is against an employee-student, it is important to note that while not all employment relationships in Texas are confidential, the employment relationship can be deemed confidential if an employee has intimate knowledge of the employer's business.<sup>98</sup> It is also likely that a court will find a confidential relationship when the employee has signed an agreement to hold information acquired on the job in confidence or the employee has a duty of confidentiality. However, even with a confidentiality agreement, a court must still determine that a confidential relationship exists by "viewing the picture as a whole."<sup>99</sup>

To determine if an employee breached a confidentiality obligation, it is also critical to look at the position of the employee within the company. In *Zoecon Industries v. American Stockman Tag Co.*,<sup>100</sup> the Fifth Circuit Court of Appeals held that the employee's role as a key manager implied knowledge of such intimate detail of the employer's business that a confidential relationship was created. Thus, an implied obligation to an employer can be created if the employee knows that the employer wants to keep information secret, or the employee should have realized that \*262 the employer wanted secrecy.<sup>101102</sup> On the other hand, an employee's laxness about revealing the proprietary information of an employer may result from the employer's failure to notify employees that certain information is confidential. This defense has been raised by the defendant in several cases.<sup>103</sup>

If the misappropriation arose from a disclosure in the classroom, it is crucial to examine both the classroom environment and materials distributed during class to look for evidence that indicates that the information discussed in class was to be kept confidential.

Finally, regardless of whether the case involves misappropriation of information developed as part of a university-industry research arrangement or misappropriation arising from actions in a classroom, in order to support a cause of action the plaintiff must establish that the defendant used or disclosed a trade secret without authorization.<sup>104</sup>

Even if no lawsuit arises, the holder of a trade secret should be thoroughly aware of possible consequences to a student who reveals an employer's trade secret in an academic setting. The following example illustrates the importance of educating employees about the meaning of proprietary information, trade secrets, and the nature and importance of sensitive information.

One evening a professor answered a knock at the front door of her residence. Standing on her porch were internal security officers from the corporation where one of her students worked as an intern. The officers demanded that she return a student's class research project that apparently contained trade secrets of the student's employer. Fortunately, the professor had not yet read the paper, and she turned the project over to the security officers. The student's fate at the food processing company is unknown.

Now suppose that no one from the corporation realized that the student used proprietary information in the class report, and that the student discussed the paper's contents in class at a state-supported university. Next, suppose that another student demanded a copy of the paper under the Texas Open Records Act. Would the university have to comply with the request by delivering a copy of the paper, thereby becoming party to exposing a corporation's trade secrets? Or would the university's legal counsel argue that the student's paper is exempted under the Act, possibly as \*263 part of the student's record, which is protected from public disclosure?<sup>105</sup> Alternatively, would the university refuse to turn over the paper under §552.110 of the Act: "A trade secret or commercial or financial information obtained from a person and privileged or confidential by statute or judicial decision [is excepted from required public disclosure]?"<sup>106</sup>

The university, which is a state agency, would probably first contact the Attorney General's Office to help determine "whether [the] information is excepted from disclosure to the public."<sup>107</sup> The Attorney General's Office made such an exception in its "Open Records Decision No. 214 (1978)," when it exempted from disclosure a "class paper prepared by a group of university students."<sup>108</sup>

For a general overview of available information on legal issues involved in academic settings, a web site operated by the National Association of College and University Attorneys (NACUA) is an invaluable resource.<sup>109</sup> Of particular interest to practitioners facing issues involving the misappropriation of intellectual property are the web pages operated by NACUA's Section on Intellectual Property and Technology. These pages offer information, including case sites and law review articles, on legal developments affecting intellectual property and technology transfer, as well as the law of unfair competition as it relates to the use of intellectual property, technology exploitation, and university-industry research relationships.<sup>110</sup>

## VI. Conclusion and Recommendations

Often companies and employees assume that a university is an ivory tower removed from the competition of everyday business. It is not. Therefore, attorneys and their corporate clients should take measures to prevent the theft or unauthorized disclosure of trade secrets and other proprietary information in the university setting. A significant list of potential corporate preventative measures is included in the article, "Understanding the Economic Espionage Act of 1996."<sup>111</sup> Attorneys should encourage their corporate clients to create and enforce codes of ethics, educate \*264 employees about the meaning of proprietary information and trade secrets, and educate employees about the nature and importance of sensitive information. A corporation may also benefit by requiring employees to sign an acknowledgment of awareness of certain secret information, as well as a non-disclosure agreement.

Companies with student interns and employees continuing their university education should inform those interns and employees about the nature and extent of proprietary information and trade secrets, make the employees aware that academic settings are part of the business world where competition and corporate espionage exist, and urge the employees to exercise caution regarding the use of company information in the academic environment. These simple, yet often overlooked, pragmatic measures can and should help prevent companies from suffering the financial loss and competitive disadvantage that often accompanies the theft of trade secrets and other intellectual property.

## Footnotes

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<sup>40</sup> *See* Restatement of Torts § 757 cmt. B (1939). Also note that with the exception of Texas, the vast majority of states have adopted the Uniform Trade Secrets Act ("USTA") definition of trade secret. According to the USTA a trade secret is: 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.

Uniform Trade Secrets Act § 1(4) (1985).

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<sup>42</sup> *See* Gonzales, 791 S.W.2d at 263; U.S. Sporting Products v. Johnny Stewart Game Calls, Inc., 865 S.W.2d 214, 218 (Tex. App.--Waco 1993, writ denied).

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<sup>49</sup> Expo Chemical Co. v. Brooks, 572 S.W.2d 8, 11 (Tex. App.-- Houston [1st Dist.] 1978), *rev'd on other grounds*, 576 S.W.2d 369 (Tex. 1979); Restatement of Torts § 757 cmt. B (1939).

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<sup>56</sup> *See, e.g.*, *Hyde Corp.*, 314 S.W.2d at 777, 117 U.S.P.Q. at 48.

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<sup>63</sup> *See, e.g.*, *Furr's Inc.*, 385 S.W.2d at 460, 144 U.S.P.Q. at 515.

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<sup>65</sup> *Id.* at 197-98.

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