

Trade Secrets & Industrial Espionage

CJ341 – Cyberlaw & Cybercrime Lecture #11

M. E. Kabay, PhD, CISSP-ISSMP
<mailto:mkabay@norwich.edu>
V: 802.479.7937
Program Director, MSIA,
School of Graduate Studies

P. R. Stephenson, PhD, CISM, CISSP, FICAF
<mailto:pstephen@norwich.edu>
V: 802.498.4923
Associate Program Director, MSIA
School of Graduate Studies
Chair, Department of Computing
School of Business & Management

Julie Tower-Pierce, Esq
<mailto:j@hjit.net>
Adjunct Prof Justice Studies
School of Social Sciences

1

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Topics

- Definition of Trade Secrets
- Protection
- Polices & Law
- Damages
- International Issues
- Industrial Espionage

2

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Definition

- “In most states, a formula, pattern, physical device, idea, process, compilation of information or other information that
 1. provides a business with a competitive advantage, and
 2. is treated in a way that can reasonably be expected to prevent the public or competitors from learning about it, absent improper acquisition or theft.”*
- Sometimes referred to as *confidential information* or *proprietary secrets*
- See also *Burgunder p. 212*

3

*<http://www.nolo.com/definition.cfm/Term/332AC147-64A5-4BBC-9EED4384C4DBFB88/alpha/T/>

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Purpose of Trade Secret Laws

- Protect *valuable creative ideas* at various stages of development
- Patents cover completed inventions & processes
 - Require inventions be
 - ✓ novel and
 - ✓ Nonobvious
- Trade secrets require only information be *valuable*

4

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Apple Corp vs Bloggers

- Nicholas Ciarelli became fond of Apple MAC at age 6
- At age 13, founded Think Secret Web site
 - Focused on Apple products
 - Popular venue for news, reviews, gossip & rumors
 - Pen-name “Nick dePlume”
- In late Dec 2004, Think Secret previewed new products before Apple ready to announce them
 - Mac mini
 - iPod Shuffle
 - iLife '05 & GarageBand 2
- Lawsuit Jan 2005: *Apple Computer Inc v. Nick dePlume*

5

See <http://www.wired.com/wired/archive/13.05/apple.html>

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Apple vs Bloggers (cont'd)

- Also launched separate lawsuit
 - v. Think Secret, PowerPage.org & AppleInsider
 - Demanding identity of insiders who leaked info
- Lawyer Terry Gross of Gross & Belsky took case
 - Pro bono
 - Demanded dismissal
 - Labelled case a SLAPP (Strategic Lawsuit Against Public Participation)
 - Denied that any significant trade secrets were revealed at all

6

See <http://www.wired.com/news/mac/0,2125,66821,00.html>

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Apple vs Bloggers (cont'd)

- Mar 2005: EFF (Electronic Frontier Foundation)
 - ❑ Filed *amicus curiae* (friend of the court) brief in favor of defendants
 - ❑ Argued online journalists should have same rights as traditional journalists
- Mar 2005: CA Superior Court judge James Kleinberg ruled bloggers had no right to protect sources
 - ❑ "...an interested public is not the same as the public interest."
 - ❑ EFF warned "'Anyone who reports on companies or the trade press should be concerned about this ruling."

See <http://news.bbc.co.uk/2/hi/technology/4348425.stm>

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

7

Trade Secret Policies & Law

- Uniform Trade Secrets Act (UTSA)
 - ❑ Information →
 - ❑ Derives independent economic value from secrecy
 - ❑ *Subject of reasonable efforts to maintain secrecy*
- Contrast with patent ("patent" means "open")
- Unauthorized use of trade secret can lead to *civil tort* for misappropriation

Formula
Pattern
Compilation
Program
Device
Method
Technique
Process

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

8

Misappropriation Defined

- Trade secret holder entitled to remedies when misappropriation occurs:
- Acquiring trade secret by improper means
- Disclosing or using trade secret reasonably knowing that such conduct violates duty to maintain confidence
- While reasonably knowing of the impropriety, using or disclosing secret received from another who improperly obtained it
- While reasonably knowing about fiduciary breach, using or disclosing secret that was disclosed by another under such a duty to maintain confidence
- (See Burgunder p. 213)

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

9

State Laws on Trade Secrets

- State Level: Most states have separate statutes criminalizing trade secret theft
- American Law Institute (ALI)
 - ❑ 1995: Restatement (Third) of Unfair Competition
- National Conference of Commissioners on Uniform State Laws
 - ❑ 1979: formulated UTSA
 - ❑ Uniform Trade Secrets Act
 - ❑ Model for state legislatures to follow to pass statutes that codify policies
 - ❑ By 2005, 44 states & District of Columbia had statutes based on UTSA

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

10

Federal Level

- Trade Secrets Act (18 USC §1905)
- Economic Espionage Act (18 USC §1831 et seq.)

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

11

Trade Secrets Act

- 18 USC §1905
- Covers
 - ❑ Unauthorized disclosure
 - ❑ Of secrets relevant to government work
 - ✓ Contracts
 - ✓ Investigations
 - ✓ Reports
 - ❑ By *government employee or agent* only
- *Text on next slide*

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

12

Trade Secrets Act (Text)

Whoever, being an officer or employee of the United States or of any department or agency thereof, any person acting on behalf of the Office of Federal Housing Enterprise Oversight, or agent of the Department of Justice as defined in the Antitrust Civil Process Act (15 U.S.C. 1311–1314), or being an employee of a private sector organization who is or was assigned to an agency under chapter 37 of title 5, publishes, divulges, discloses, or makes known in any manner or to any extent not authorized by law any information coming to him in the course of his employment or official duties or by reason of any examination or investigation made by, or return, report or record made to or filed with, such department or agency or officer or employee thereof, which information concerns or relates to the trade secrets, processes, operations, style of work, or apparatus, or to the identity, confidential statistical data, amount or source of any income, profits, losses, or expenditures of any person, firm, partnership, corporation, or association; or permits any income return or copy thereof or any book containing any abstract or particulars thereof to be seen or examined by any person except as provided by law; shall be fined under this title, or imprisoned not more than one year, or both; and shall be removed from office or employment.

http://www4.law.cornell.edu/uscode/html/uscode18/usc_sec_18_00001905----000-.html

13

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Economic Espionage Act of 1996 (EEA)

- 18 USC §1831 *et seq.*
- Criminalizes unauthorized disclosure of government OR commercial secrets by anyone
- Includes penalties for those receiving such information
- See text on next slide

14

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

EEA Text

§ 1831. Economic espionage

(a) *In General.*— Whoever, intending or knowing that the offense will benefit any foreign government, foreign instrumentality, or foreign agent, knowingly—

- (1) steals, or without authorization appropriates, takes, carries away, or conceals, or by fraud, artifice, or deception obtains a trade secret;
- (2) without authorization copies, duplicates, sketches, draws, photographs, downloads, uploads, alters, destroys, photocopies, replicates, transmits, delivers, sends, mails, communicates, or conveys a trade secret;
- (3) receives, buys, or possesses a trade secret, knowing the same to have been stolen or appropriated, obtained, or converted without authorization;
- (4) attempts to commit any offense described in any of paragraphs (1) through (3); or
- (5) conspires with one or more other persons to commit any offense described in any of paragraphs (1) through (3), and one or more of such persons do any act to effect the object of the conspiracy, shall, except as provided in subsection (b), be fined not more than \$500,000 or imprisoned not more than 15 years, or both.

(b) *Organizations.*— Any organization that commits any offense described in subsection (a) shall be fined not more than \$10,000,000.

15 http://www4.law.cornell.edu/uscode/html/uscode18/usc_sec_18_00001831----000-.html

16

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

EEA Penalties include

- Up to 15 years in jail
- MAX(\$500,000 fine or 2x value)
- Forfeiture
- Import-export restrictions

Borland & Symantec 1992

- Eugene Wang
 - ❑ Former CEO of Borland Int'l
 - ❑ Resigned 2 months after management shuffle
 - ❑ Became VP of Symantec
- Borland officials searched his e-mail
 - ❑ Found files sent via MCI Mail
 - ❑ 10 msgs sent to Symantec CEO
 - ❑ Contained confidential info
- Borland filed civil & *criminal* charges
 - ❑ Scotts Valley Police Department
 - ❑ Provisions of CA penal code applied

<http://catless.ncl.ac.uk/Risks/13.87.html#subj2>

17

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

UTSA Remedies for Misappropriation

- Damages (\$)
 - ❑ Amount needed to compensate the trade secret holder for losses
 - ❑ Amount of unjust enrichment earned by unlawful use or disclosure
- Injunctions
 - ❑ Preventing use
 - ✓ Including “threatened misappropriation”
 - ❑ To obtain preliminary injunction, must prove:
 - ✓ Irreparable harm
 - ✓ Strong likelihood of success of winning if case goes to trial

18

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Microsoft and Google (2000)



- Microsoft hired Kai-Fu Lee
 - ❑ VP for R&D
 - ❑ Lee agreed if he left Microsoft he wouldn't work for 1 year in competitive capacity
 - ❑ Quit and worked for Google
 - ❑ TRO (temporary restraining order) issued
 - ❑ Dispute eventually settled
- UTSA – Civil provisions
 - ❑ Doesn't authorize government to bring criminal actions
 - ❑ Some states have separate criminal statutes for trade secret theft

19

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

First Amendment Issues



- Opponents of corporate actions have revealed trade secrets to press
 - ❑ Concerned or disgruntled employees
 - ❑ Journalists or activists using social engineering (e.g., Ciarelli)
- Can corporations impose *prior restraint* to prevent publication?
 - ❑ Generally, no: 1st Amendment protects such publication absent compelling reasons to interfere
 - ❑ May still prosecute for industrial espionage after the fact

20

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

DeCSS Trade Secret Dispute



- 1999: 15 year old Norwegian Jon Johanssen
 - ❑ Studied DVD Software Player
 - ❑ Determined how CSS anti-copy system worked
 - ❑ Ascertained encryption keys to descramble CSS protection
 - ❑ Posted DeCSS software on Internet
- 5 years of litigation involving DMCA; issues:
 - ❑ Reverse engineering,
 - ❑ Injunctive relief
 - ❑ Misappropriation

See Burgunder pp 230-234

21

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Reverse Engineering



- Defined in *Computer Desktop Encyclopedia*:
 - ❑ *To isolate the components of a completed system. When a chip is reverse engineered, all the individual circuits that make up the chip are identified. Source code can be reverse engineered into design models or specifications. Machine language can be reversed into assembly language (see disassembler).*
- Applicability to discussion of trade secrets
- Ethical considerations
 - ❑ State trade secret law (misappropriation prohibitions) v. acquisition of info through reverse engineering

22

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

International Trade Secret Protection



- TRIPS agreement
 - ❑ *Agreement on Trade-Related Aspects of Intellectual Property Rights*
 - ❑ Members of the World Trade Organization (WTO) must protect "undisclosed information"
 - ❑ Does not use *trade secret* term
 - ❑ WTO members required to enforce their own trade secret laws with remedies
- Issues
 - ❑ Enforcing contractual obligations / confidentiality agreements
 - ❑ Determining damages
 - ❑ Durational periods – variation in time limits for maintaining secrecy of info
 - ❑ Need to exercise caution with trade secrets overseas

23

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Industrial Espionage Examples



- Many cases available in IYIR database
 - ❑ See <http://www2.norwich.edu/mkabay/iyir/index.htm>
- Due to time limitations, will look only at 2 outstanding cases:
 - ❑ Echelon
 - ❑ Israeli Trojan Horse Keylogger

24

Copyright © 2009 M. E. Kabay, J. Tower-Pierce & P. R. Stephenson. All rights reserved.

Echelon

EU Parliament attacks Echelon (2000.07)

- Formed temporary committee to investigate spy network
- Suspicions that Echelon used to intercept conversations of European businesses
- Information might be given to competitors from Echelon operators
 - ❑ US, Canada, Australia, New Zealand
- In 2001.05, report recommend more use of encryption to defeat Echelon

Israeli Trojan Horse Keylogger

- 2005.05 Suspicions raised by keylogger software on PCs
 - ❑ Author found his MS on 'Net
 - ❑ Someone tried to steal money from his bank
 - ❑ Created by Michael Haephrati – ex-son-in-law
 - ❑ Many companies found infected by same program – sent data to server in London
- 2006.03 Perpetrators sent to jail
 - ❑ Michael Haephrati: 4 years
 - ❑ Ruth Brier-Haephrati: 2 years

DISCUSSION