

Data Integrity Summit-2006

**WHAT IS DATA INTEGRITY
AND WHY SHOULD YOU
CARE?"**



Randolph A. Kahn, ESQ.

Part I: Evolution of the problem

Q: Have you lived in this town all your life?

A: Not yet.

E-Information is different

Structure is different

“A helpful HR person at my company sent an employee phone extension list to everyone at our company. But the spreadsheet had hidden columns that were easily unhidden to reveal everyone’s pay, bonuses and stock options – including senior management’s. Luckily she had a new job lined up.”

PCWorld.com

Result needs to be the same

“Where a computerised system replaces a manual operation, there should be no resultant decrease in product quality or quality assurance.” **European Commission- Pharmaceuticals**

Info. is only as valuable as its integrity

- Today, the scientific reputation that propelled Dr. Hwang to the forefront of stem-cell research has been shattered, along with the hopes of millions of patients...” Cloning Scientist Falsified Data Colleague Says, Wall Street Journal 12/16/05
- In 1992, the British Medical Association published a study...with striking findings: Heart attack, victims who ate more fiber, fruits and vegetables for a year cut their risk of death during that period by almost half...[t]he long investigation points to a problem in medical research...” “Termite-Eaten Data Plague Dr. Smith’s 12 Year probe of an Indian Researcher” Wall Street Journal 12/27/05

Systems can help or hinder info. man.

“A systems error earlier this month meant that Mizuho Securities was unable to cancel a mistaken trade that cost it more than \$300 million...”

“Japanese exchanges suffer ‘glitches’ after heavy traffic”,
Financial Times,
12/30/05

- **Handheld computer bought online contains sensitive info**

Information Found:

Contact information for 1,000 of the bank’s employees

200 company e-mails that revealed loan terms for various investment bank customers, info. about mergers and restructuring, and contract and legal discussions

People, process, technology build integrity

“Trustworthy systems encourage consumers and businesses to take real advantage of Europe’s state-of-the art communications infrastructure ... improvements in interconnectivity make us all vulnerable to new threats big and small.” Euro. Commission of Info Sec., 3/18/04

HarperCollins effort’s to make search companies use its digital copies is an aggressive response to anxieties felt by publishers worried that they will lose control over their intellectual property...[w]e’ll own the file, and we’ll control the terms of any sale” “U.S. publisher sets digital strategy” Wall Street Journal, 12/12/05

Attack the result by attacking the process

Latin American e-elections challenged before it takes place

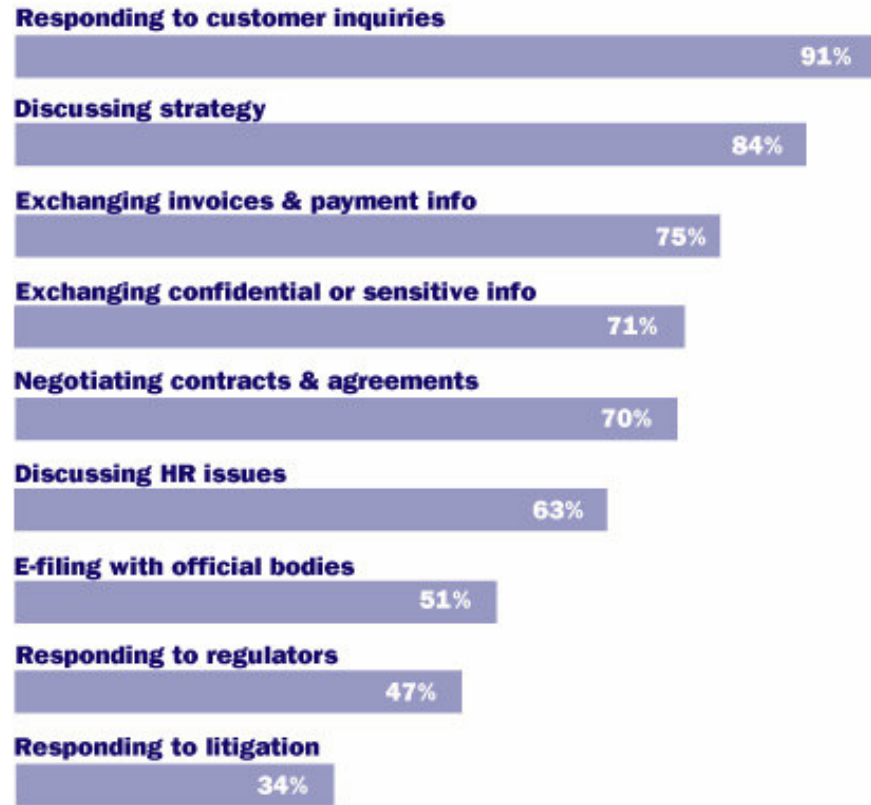
“Venezuela's electoral council is ... replacing them with touch-screen computers...the switch...has sparked a fury among his opponents, who say the new machines ...could be used to manipulate the tally in a recall vote and other elections.” Miami Herald

“Computer systems are fragile. Computer systems are hard to secure, therefore we cannot rely solely on a computer system using only electronic storage to provide accurate election results...“. "A voter-verified permanent result is essential for valid elections, one that voters can trust the reported outcome.“
House Panel Hears Concerns That Votes on Some Machines Can't Be Verified” Washington Post
9/1/05

Value in places not previously anticipated

- 32 billion daily
- Business & legal value

How Organizations Use Email Today (as a percentage of respondents)



Source: *Electronic Communications Policies and Procedures: A 2005 Industry Study*
AIIM International and Kahn Consulting, Inc., 2005

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Volume making management harder

- What is an exabyte?
- 800 Megabytes of new info from everyone on the planet every year
- “But databases frequently turn into information dumps, teeming with poorly classified or outdated information.”

“Growth at McKinsey Hindered Use of Data,” WSJ 5/20/02

New methods of doing business

- “Brands enter the blogosphere: A few pioneering marketing directors are blazing a trail in a new medium”
 - **Financial Times 12/20/2005**
- “This year, for the first time, more than half of all individual income tax returns received by the Internal Revenue Service came in electronically...one of e-filings biggest advantages is a much higher accuracy rate. The error rate on paper returns typically is around 20%, but on e-filed returns, the error rate is less than 1%.”

“Some taxpayers, though, don’t do it because they’re scared of hackers. Tax returns, after all contain enormous amounts of sensitive information...”

 - **Wall Street Journal 12/14/05**

Part II: Evolution of laws

Q: Now, doctor, isn't it true that when a person dies in his sleep, in most cases he just passes quietly away and doesn't know anything about it until the next morning?

Laws are making it possible

“Community law- in the directives on electronic signatures and electronic commerce-now recognizes electronic communications in a number of fields as equivalent to traditional paper communication” Court of Justice of the European Communities, Republic de Finlande v. Commission of the European Communities

UETA & ESIGN- Legitimize E-Records and Signature but remains technologically neutral

Legislating technology & knowing law

One Size does not fit all

“China has issued its most intrusive Internet controls to date, ordering service providers to screen private e-mail for political content holding them responsible for subversive postings on their Web sites” USA TODAY 1/18/02

“The Supreme Court of France, for example, has ruled that monitoring employee e-mail is improper, even with a written policy giving employees notice...” *E-MAIL RULES*

Laws will address the problem?

- **“California Database Protection Act**
 - Texas Website Hosting Company Gives Everyone Notice
 - ChoicePoint- why compliance is essential

“The purpose of computer security is to protect an organization’s valuable resources, such as information”

NIST General Accepted Principals and Practices for Securing Information Technology Systems

Seeking to make us accountable

Congressional report cards on the government's computer security have succeeded in focusing attention on the challenge of securing the nation's information infrastructure. It's easy to grab headlines when the government gets an overall grade of D+ and seven agencies get an F, as in the latest report card.

Government Computer News 5/16/05

Accountability laws are about information

- Sarbanes-Oxley on Information Destruction

“whoever knowingly alters, destroys, mutilates, conceals, covers up, falsifies or makes a false entry in any record, document or tangible object with intent to impede, obstruct or influence the investigation or proper administration of any matter within the jurisdiction of any department or agency of the United States or any case filed under title 11 or in relation to, or contemplation of any such matter of case, shall be fined under this title, imprisoned not more than 20 years, or both.”

Laws make good record keeping central to compliance

- “ABN Amro also admits that its officers falsified documents connected to billions of dollars in transactions with Iran and Libya, which are the target of U.S. sanctions. Last week, ABN Amro entered into a settlement with U.S. and Dutch regulators calling for \$80 million in fines addressing both the failure to report suspicious transactions and the illegal business with Iran and Libya”
- “Mr. Groenink (current Bank Chairman) was reprimanded by the Bank’s board over an October 2004 incident in which he ordered the destruction of an internal report into the Iran and Libya dealings”

“How Top Dutch Bank Plunged Into World of Shadowy Money”
December 30, 2005

Part III: Evolution of responsibilities

Q: Mr. Clark, you went on a rather elaborate honeymoon, didn't you?

A: I went to Europe sir.

Q: And did you take your wife?

IT: owning more than the computer?

- **“In the middle of this increasingly ugly brawl of analysts, brokers and lawyers is the CIO, the person who is ostensibly the steward of all corporate data.” CIO.com May 9, 2002**

“Steve Cooper, DHS' chief information officer, said the department has lost 30 out of 100 points each year for not keeping a complete inventory of its 3,600 systems and for not having secure configuration controls on computers” FCW.com
April 11, 2005

- **“CIOs need to rethink their responsibility as companies fight to restore investor confidence in financial reports.” Information Week June 30, 2002**

Ignorance is no defense

- A technologist's "innocent" action can be destruction of evidence

Applied Telematics v. Sprint

- "Electronic records, such as computer files and CD ROMS have been subject of discovery orders in this Court" *London Economics v. Frontier Economics Pty Ltd*

From simple mistakes

- **US Federal Trade Commission investigation of big drug co. for failure to follow privacy policy**

“provide adequate training...”

“provide appropriate oversight...”

“implement appropriate checks and controls in the process”

Company must “establish and maintain a four-stage information security program.”

Get it right or devolve

Failure of IT to provide secure environment has profound consequences

“Accordingly, the Office of Inspector General, the Minerals Service, the Bureau of Land Management, ...must disconnect all of their respective computer systems from the Internet.”

Court Order-- Cobell v. Secretary of Interior

\$2.5 Billion to find the records

Translating laws into technology

“Several Latin American Countries have already enacted legislation related to the recognition of legal validity of electronic and/or digital signatures...Public Key Infrastructure is a key issue for regional e-commerce to flourish in a trusted, secure and predictable environment”

Argentine Public Key Infrastructure Development

“A certifier shall document the security measures taken to comply with this law...in such a way that the data in its unfalsified condition may be verified at any time”

German Digital Signature Law

Conclusions:

Q: Doctor, how many autopsies have you performed on dead people?

A: All my autopsies are performed on dead people.

Conclusions

- Business needs, laws and corporate responsibility are all evolving
- Good business will always require integrity
- People, process & good technology are essential
- Real solution require a multidisciplinary team
- Don't take on the world--one problem at a time

The End

Q: Did you check for his blood pressure?

A: No

Q: So, then is it possible that the patient was alive when you began the autopsy?

A: No

Q: How can you be sure doctor?

A: Because his brain is sitting on my desk in a jar.

Q: But could the patient have still been alive nevertheless?

A: It is possible that he could have been alive and practicing law somewhere.

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