

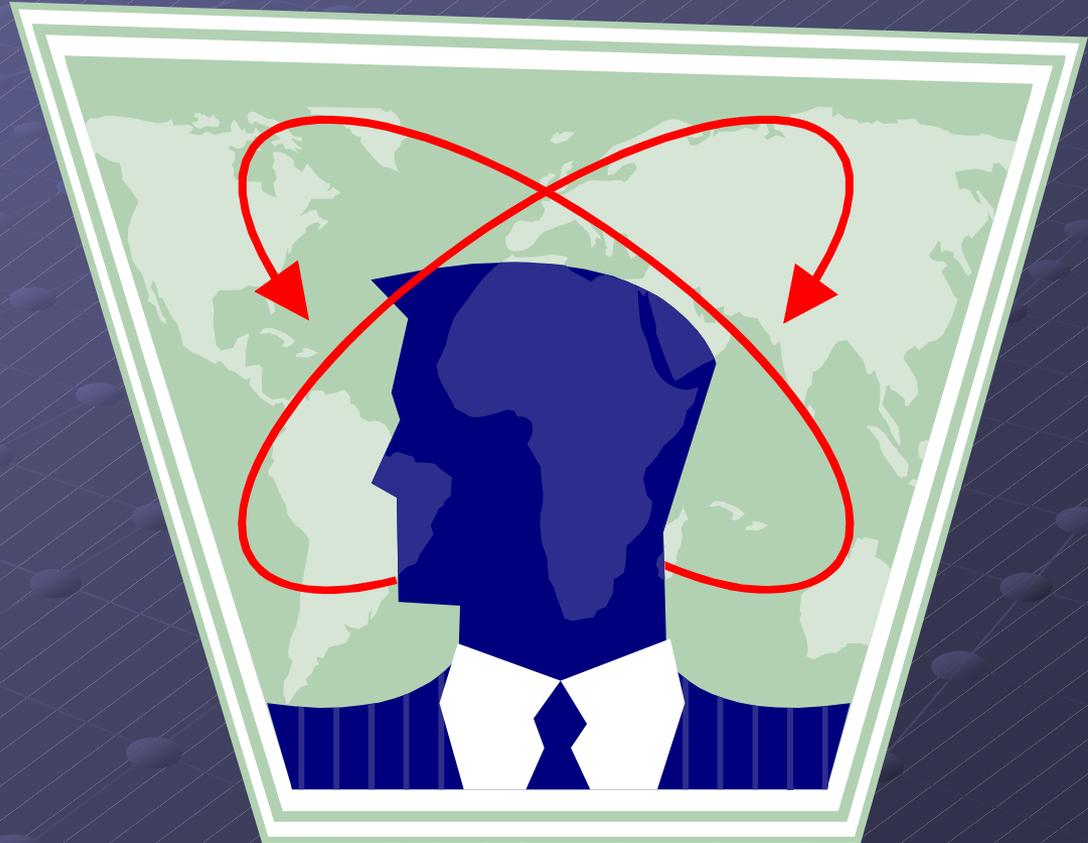
Privacy

Looking Ahead...

J. Trevor Hughes
Executive Director
International Association of Privacy Professionals

Emerging Privacy Issues

- Show me the harm:
 - ID Theft
 - SSNs
 - Spam
 - Telemarketing
 - FCRA
- Security
 - The Ugly Stepchild
- A Look Ahead
 - Emerging Technology
 - Biometrics
 - Data Fluidity
 - Data Aggregation



The Privacy Strata

Technology Standards

Self-Regulatory Standards

US Government

FCRA

GLBA

HIPPA

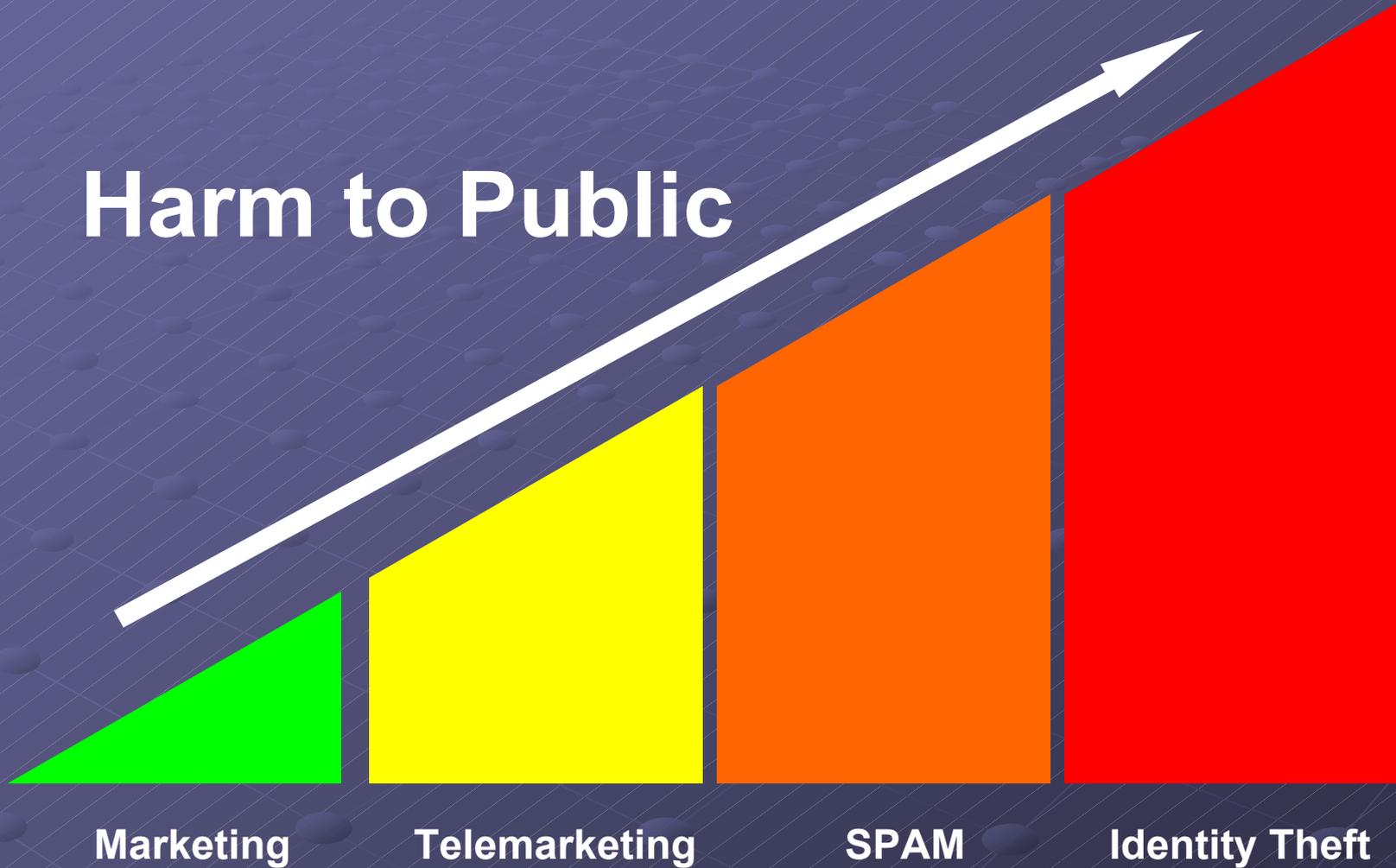
The States

(Legislatures, DOIs and ...)

The
Rest of the
World

Show me the harm...

Harm to Public



Identity Theft

● **FTC Complaints:**

- 2000: 31,000
- 2001: 86,000
- 2002: 162,000
- Top consumer fraud complaint in 2002
- 30% growth predicted going forward
- Estimated 9.9 million victims in 2002

● **Average impact:**

- \$1500
- 175 hours of clean up
- credit disruptions
- Cost to consumers = \$5 billion
- Cost to industry = \$48 billion
- 42% of complaints involve credit card fraud

Identity theft coverage now available

Social Security Numbers

● California:

- Correspondence to residential addresses cannot include a SSN
- (Simitian bill) employers cannot use SSN for purposes other than taxes

● Feds:

- Proposals to limit use as college ID

● Looking ahead:

- Restrictions on the use of SSNs as internal identifiers
 - May be used for verification of identity, accessing medical files and credit reports
 - May not be used as an account number

SPAM

- Hotmail – 80% unsolicited bulk email
- MSN and AOL
 - 2.5 BILLION blocked per day EACH
- 55% of all email today
- Work productivity/liability concerns
- Deliverability concerns
- Channel viability concerns (the “900” phenomenon)



What is SPAM?



Spam is in the eye of the beholder...

- FTC Study: 66% of spam in the “fridge” is false or misleading
- Brightmail: 90% of spam in their spam traps is untraceable
- At a minimum: *SPAM IS DECEPTIVE*

Killing the Killer App?

● Legal Responses:

- 35 states with anti-spam legislation
- Can Spam Act in Senate
- Commerce/Judiciary efforts in House
- EU opt-in requirements

● Tech Responses

- Blacklists
- Filtering by ISPs
- Solution providers
 - Habeus
 - Trusted Sender
 - IronPort
 - Brightmail

**Aggressive filtering results in “false positives”
(*legitimate email being blocked*)**

SPEWS.ORG

SPAM PREVENTION EARLY WARNING SYSTEM

Lookup Record or IP #

Enter:

Test

► Menu

SPEWS FAQ

SPEWS News

► Using SPEWS

Simple Doublecheck

Email Filtering

Packet Reject

DNS Deny

HTTP Reject

► Spam Advisory Systems

DSBL

ORDB

Wirehub

Osirusoft

Dorkslayers

Spamhaus Block List

Others

► Spam Filtering Systems

Brightmail

Cloudmark

SpamBouncer

Declude

Praetor

Vamsoft ORF

BCware NoSPAM

SpamAssassin

CommuniGate

MessageWall

Nexor Mailer

VOP Mail Filter

XWall

IronMail

Postini

Power Tools

MDaemon

SPEWS.ORG Information

About SPEWS

SPEWS is a list of areas on the Internet which several system administrators, ISP postmasters, and other service providers have assembled and use to deny email and in some cases, all network traffic from.

This private list is now available for the general public to read and/or use for email filtering.

Most [spam](#) advisory and blocking systems work after the fact. There is a time lag between the spammer setting up shop, spamming millions, and getting netblocks listed by these systems. SPEWS identifies known spammers and spam operations, listing them as soon as they start, sometimes even before they start spamming.

SPEWS
and
of re
requ
know
SPEWS

Any
seve
The
with
page

SPEWS
check
by u
SPEWS
unsc
know
futu

SPEWS
nam

Domain ID:D74783489-LROR

Domain Name:SPEWS.ORG

Created On:07-Jul-2001 19:50:12 UTC

Last Updated On:24-Jul-2002 04:21:32 UTC

Expiration Date:07-Jul-2003 19:50:12 UTC

Sponsoring Registrar:R25-LROR

Status:OK

Registrant ID:25-C

Registrant Name:CONTACT NOT AUTHORITATIVE

Registrant Street1:Whois Server:whois.joker.com

Registrant Street2:Referral URL:www.joker.com

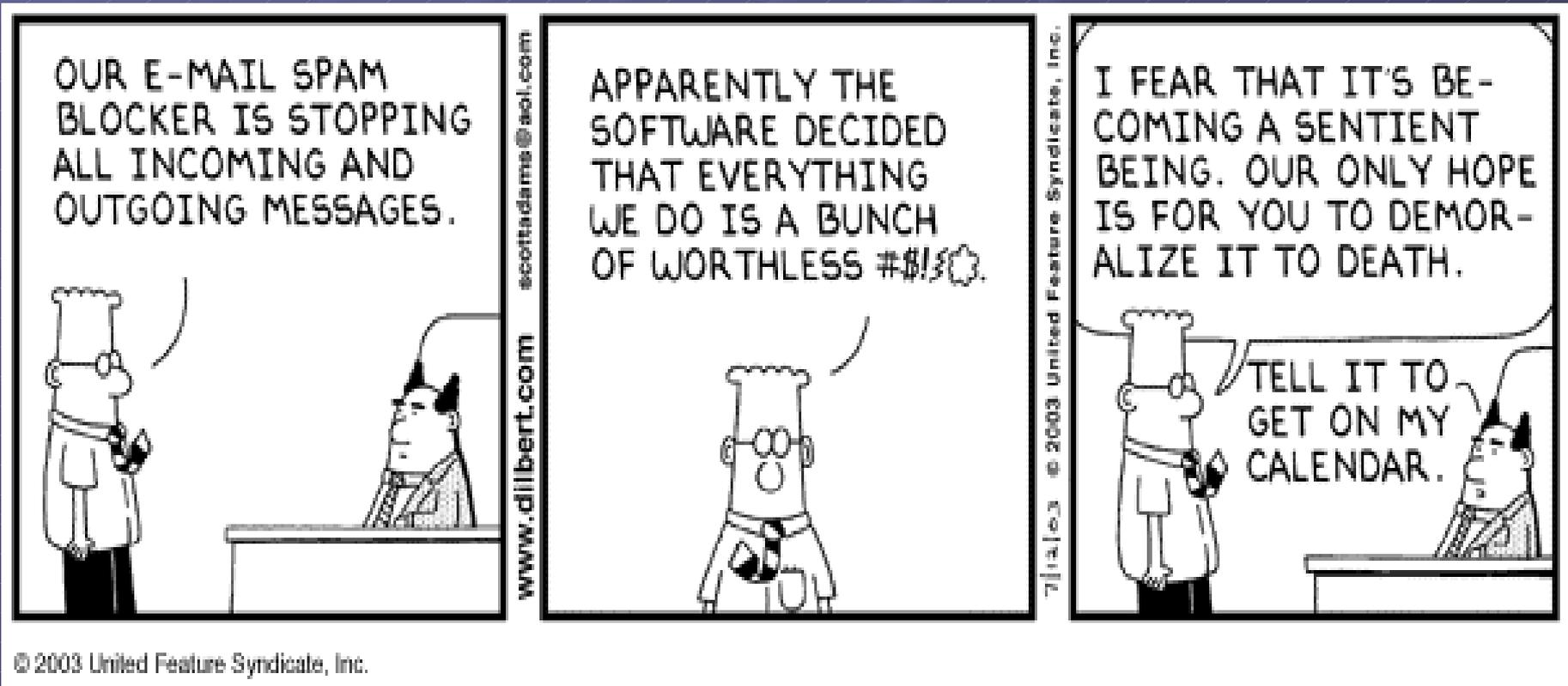
Registrant City:N/A

Registrant Postal Code:N/A

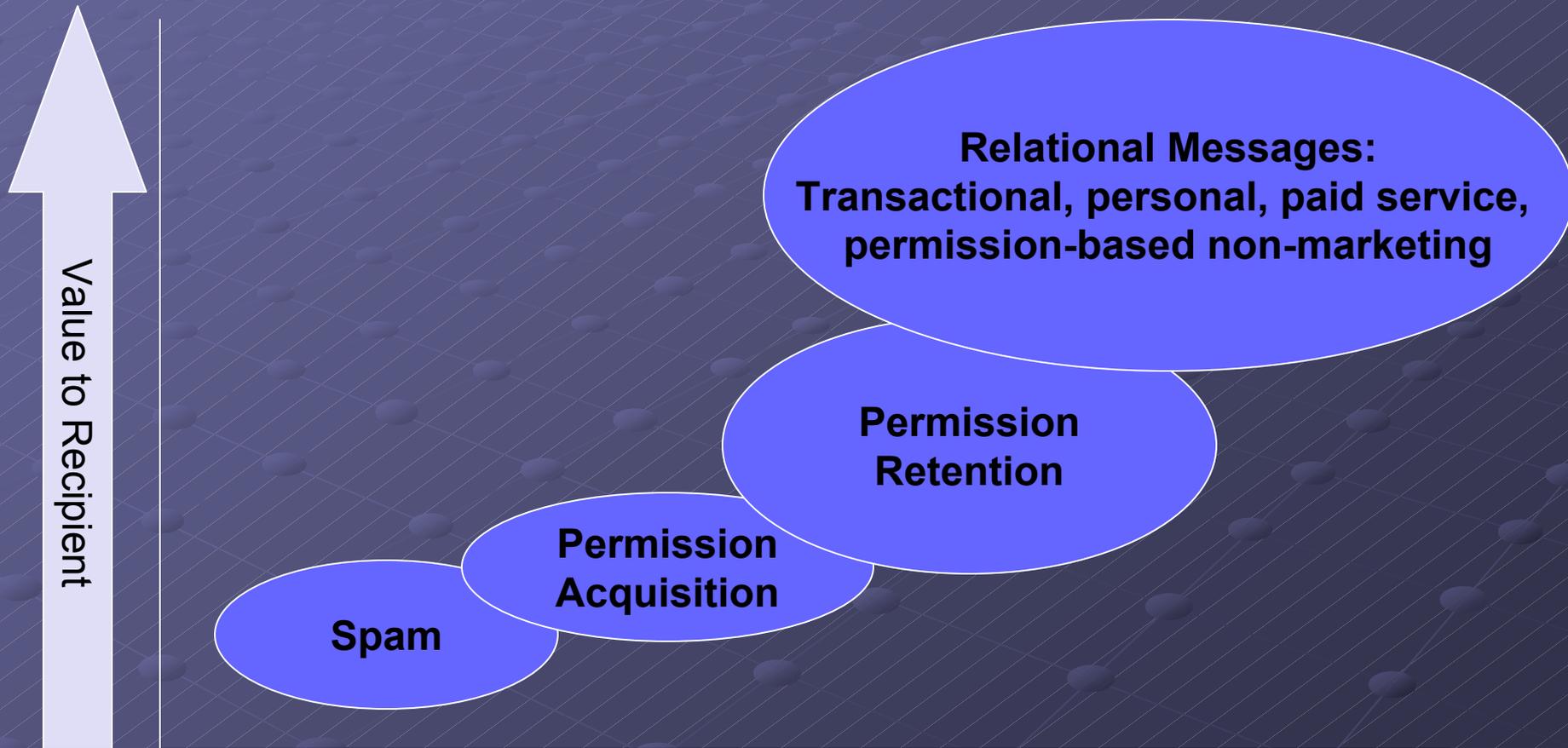
Registrant Country:CA

Registrant Email:not@available.org

Filters



The Value of Email



ISPs and False Positives

**Average Non-Delivery
for Top ISPs: 17%**



Employee Privacy

- Blurring of work/home boundaries
- 30% of 2002 ecommerce sales generated from the workplace
- Extensive use of company email for personal use
- Issue: employer monitoring?
- European v. US approaches



Telemarketing

- The “must have” legislation for every up-and-coming AG
- FTC’s gift to consumers: a national do not call registry (44 million registrants)
- Telemarketing will diminish as a sales vehicle

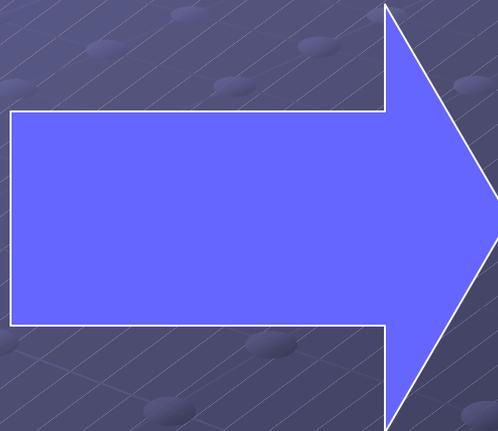


Fair Credit Reporting Act

- Reauthorization in 2003
- Big issues:
 - Expand consumer privacy protections?
 - Sunset state preemption?
 - NAAG says “YES!”
 - Business community says “please, no!”
 - Expanded identity theft provisions
- For insurers: beware of scope creep in FCRA reauthorization (Sen. Shelby – GLBA did not go far enough; wants opt in for third party transfers)

Layered Privacy Notices

Nutrition Facts			
Serving Size 1 pretzel (about 25g)			
Servings Per Container 20			
Amount Per Serving			
Calories 90	Calories from Fat 0		
% Daily Value*			
Total Fat 0g	0%		
Saturated Fat 0g	0%		
Cholesterol 0mg	0%		
Sodium 470mg	20%		
Total Carbohydrate 19g	6%		
Dietary Fiber less than 1g	4%		
Sugars less than 1g			
Protein 1g			
Vitamin A *	Vitamin C *		
Calcium *	Iron *		
* Contains less than 2% of the Daily Value of these nutrients.			
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g



Privacy Facts		
Data Collection and Use		
Data Collected by Acme, Inc.		
Name		Yes
Address		Yes
Phone		Yes
Email		Yes
Medical Data		No
Financial Data		Yes
Political Data		No
Age Data		Yes
Mktg Preferences		Yes
Family Status Data		Yes
Data Use by Acme, Inc.		
Purpose		Choice
Marketing	Yes	No
Transfer	Yes	Opt Out
Credit Rating	No	No
Ins. Rating	No	No
Enforcement by TRUSTe, www.truste.org , 800 222 2222		
Access to personal data may be obtained through www.acme.com or by calling 800 333 3333.		

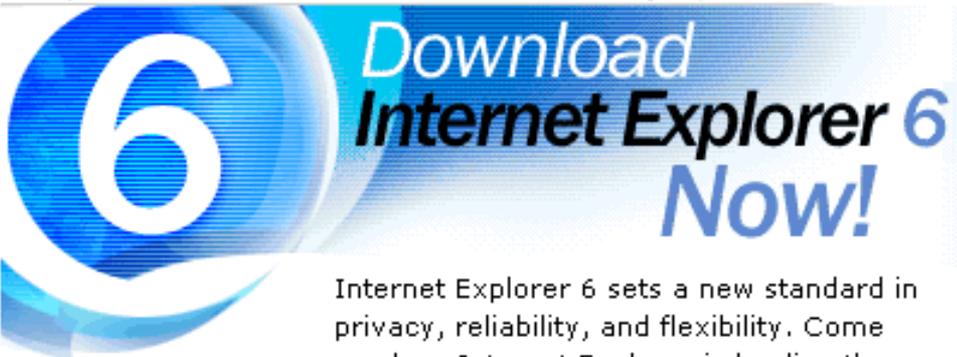
Search This Site

Go

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- Internet Explorer Home
- Evaluation
- Technical Resources
- Using Internet Explorer
- Downloads
- Support
- Related Technologies
- Previous Versions
- Windows Family

The private, reliable, and flexible Internet browsing experience



Internet Explorer 6 sets a new standard in privacy, reliability, and flexibility. Come see how Internet Explorer is leading the way on the Web.

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[What's New in Internet Explorer 6](#)

Are you ready to see what's new in Internet Explorer 6? Take a quick tour now.



[Internet Explorer 6 and Windows XP](#)

This Expert Zone review discusses some of the great enhancements in Internet Explorer 6 with Microsoft Windows XP.

Highlights

Microsoft Office xp
Try Office XP Today

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- ▶ [Internet Explorer 5.5 Service Pack 2](#)
- ▶ [Internet Explorer 5.01 Service Pack 2](#)

Information For...

- ▶ [Internet Explorer enthusiasts](#)
- ▶ [Developers](#)
- ▶ [Corporations](#)
- ▶ [Internet service providers \(ISPs\)](#)
- ▶ [Internet content providers \(ICPs\)](#)

Internet Properties

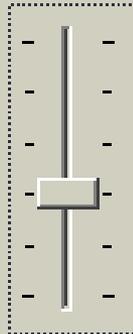


General | Security | Privacy | Content | Connections | Programs | Advanced

Settings



Move the slider to select a privacy setting for the Internet zone.



Medium

- Blocks third-party cookies that do not have a compact privacy policy
- Blocks third-party cookies that use personally identifiable information without your implicit consent
- Restricts first-party cookies that use personally identifiable information without implicit consent

Import...

Advanced...

Default

Web Sites

To override cookie handling for individual Web sites, click the Edit button.

Edit...

OK

Cancel

Apply

MaineToday.com

Portland Press Herald
KENNEBEC JOURNAL
 Morning Sentinel
NEWS 8 WMTW

HOME
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 Local and state
 Midday Report

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Thursday, September 10, 2009

TODAY'S NEWS

BREAKING NEWS
Seized car in AUGUSTA

federal officials, Portland police seized a car in the Portland Jetport parking garage and State Police evidence experts loaded it onto a truck and drove it to the Augusta State Police Crime Laboratory.

Vehicle linked



Privacy Report

Based on your privacy settings, some cookies were restricted or blocked.

Show:

Web sites with content on the current page:

Site	Cookies
http://oas.portland.com/RealMedia/ads/adstream_...	Blocked
http://oas.portland.com/RealMedia/ads/adstream_...	Blocked
http://oas.portland.com/RealMedia/ads/adstream_...	Blocked
http://oas.portland.com/RealMedia/ads/adstream_...	Blocked
http://oas.portland.com/RealMedia/ads/adstream_...	Blocked
http://oas.portland.com/RealMedia/ads/adstream_...	Blocked
http://oas.portland.com/RealMedia/ads/adstream_...	Blocked

To view a site's privacy summary, select an item in the list, and then click Summary.

[Learn more about privacy...](#)

Summary Settings... Close

whatever you need.

WEATHER



Clouds will thicken and lower

with a few showers possible by

MaineGeneral Health [CLICK HERE](#)

MaineGeneral.org recognized in Portland Magazine for being one of the Top 3 ranked Maine websites. [Check us out!](#)

Find a physician fast in our [Physician Directory](#).

Know a patient in our hospital? Send an on-line [greeting card](#).

Websites to help deal with disaster:

- [Coping with Emotions after a Disaster](#)
- [Managing Traumatic Stress, American Psychological Association](#)

Security

The Ugly Stepchild of Privacy

Hack at Amazon-owned service exposes thousands

By [Troy Wolverton](#)
Staff Writer, CNET News.com
March 5, 2001, 4:50 p.m. PT

Amazon.com-owned book service Bibliofind.com restarted its Web site Monday in the wake of a hacker attack that compromised some 98,000 customer records and forced the company offline.

Waltham, Mass.-based Bibliofind, which links buyers and sellers of hard-to-find and out-of-print books, discovered last week that a hacker had broken into its Web servers sometime in October and had continued to access the company's site since then, Bibliofind spokesman Jim Courtovich said. The hacker downloaded customer records from the site, including customers' names, addresses and credit card numbers, Courtovich said.

In response to the discovery, Bibliofind, a wholly owned subsidiary of Amazon, shut down its Web site Friday and removed customers' credit card information and addresses from its servers, he said. Courtovich declined to say whether Bibliofind had identified a suspect in the attack, saying only that the company notified the Federal Bureau of Investigation, which is looking into the matter.

advertisement

"Bibliofind has just learned of a security violation on its site that compromised the security of credit card information used on Bibliofind.com."



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- [Tech jobs](#)
- [Taiwan's Computex](#)
- [JavaOne](#)
- [Online music](#)
- [Lucent Technologies](#)

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- [Stocks retreat as investors take a breather](#)
- [Intel exec: No new layoffs](#)
- [Lucent to offer early retirement to 10,000](#)
- [High-tech job growth rate at](#)

Egghead silent; customers angry

By [Robert Lemos](#) and [Troy Wolverton](#)
Special to CNET News.com
January 2, 2001, 1:30 p.m. PT

Nearly two weeks after an intruder cracked into Egghead.com's computer systems, the online retailer is still mum on whether any credit card numbers were stolen from its 3.7 million-customer database.

Representatives for Egghead and for the San Francisco office of the FBI confirmed Tuesday that investigations were continuing, but they would not provide details.

Customers, however, were talking.

"Any company that's going to do something as stupid as maintain a credit card online on a vulnerable server that long after the transaction, I have no reason to trust them at all," said John Groseclose, of Scottsdale, Ariz. "That goes against every industry best practice that's out there."

On Dec. 22, Egghead

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Columbia House breach exposes customer info

By [Stefanie Olsen](#)

Staff Writer, CNET News.com

February 21, 2001, 2:20 p.m. PT

Music company Columbia House left a hole in more than its CDs during the past week, when a security breach on its Web site exposed thousands of customer names, addresses and portions of credit card numbers.

A company representative confirmed the breach Wednesday, calling it "temporary" and an unlucky outcome of routine development work on the Web site.

Mark Alway, a software developer from Seattle, discovered the breach Friday evening while shopping for CDs with a friend. He found that by eliminating part of the [Columbia House](#) Web address, which contains more than 100 characters at any given time, he could reach a directory of administrative tools normally unreachable to the average Web surfer.

This directory mapped out a treasure trove of links to personal customer data and sensitive Web files including company coupon codes, log files, and names and passwords to Columbia House's main Informix database, Alway said in an interview.

"It's almost negligent to have this type of error--it's something you're trained to solve in very basic Web training courses, not to leave directory indexing on. A large business shouldn't have such a simple mistake on their site," said Alway, who immediately sent an e-mail to technical contacts at the site Friday. He said he received a response Wednesday that the site had been fixed.

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[High-tech job growth rate at five-year low](#)

Travelocity exposes customer information

By [Troy Wolverton](#)

Staff Writer, CNET News.com

January 22, 2001, 6:30 p.m. PT

A security breach at Travelocity exposed the personal information of thousands of the online travel company's customers, the company confirmed Monday.

Names, addresses, phone numbers and e-mail addresses of Travelocity customers who participated in a promotion on its site were exposed. Travelocity executives closed the breach, which involved an insecure directory, on Monday afternoon after it was pointed out.

For more than a month, up to 51,000 names could have been exposed by the breach, said Jim Marsicano, executive vice president of sales and service for Travelocity. Blaming the problem on human error, Marsicano stressed that no customer order information was compromised by the security hole.

"We take this privacy thing very seriously," Marsicano said. But he added, "In this case, we didn't do what we were supposed to do."

Although Travelocity is still investigating the incident, Marsicano said that it stemmed from the transfer of the company's servers from San Francisco to Tulsa last month. As part of the move, some of the company's internal data from two promotional contests that ran last year was inadvertently left on a computer that is now being used as a Web server, he said.

"We had a weak link in this particular transaction and you see the end result " he said

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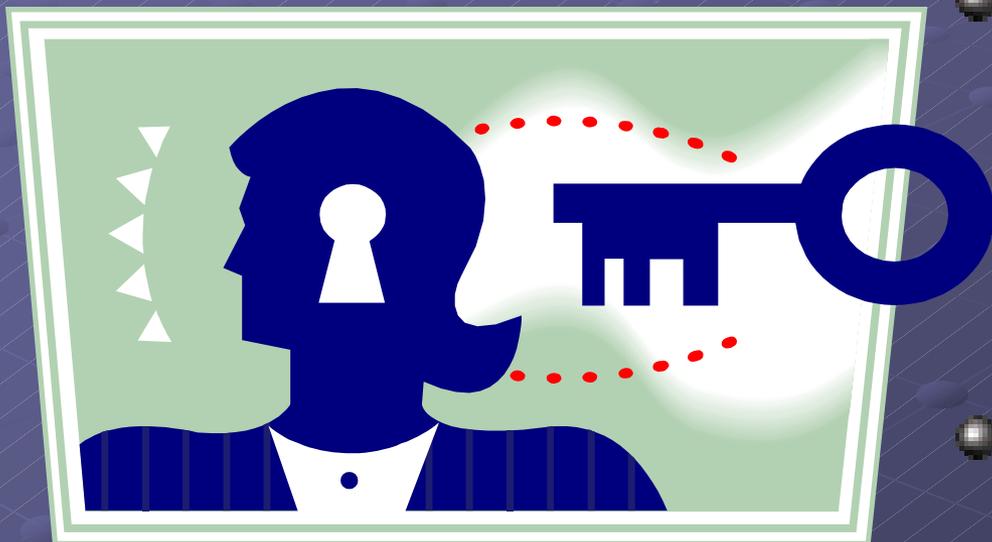
[High-tech job growth rate at five-year low](#)

Security

- Security Audit
 - Quickest, easiest way to get a snapshot of your security issues
- Develop a “Security Portfolio”
 - Internet/Acceptable use policies
 - E-mail policies
 - Remote access policies
 - Special access policies
 - Data protection policies
 - Firewall management policies
 - Cost sensitive, appropriate architecture
- Reassess, Audit, Revise

***Defense
In
Depth!***

Security



- Protect Internally and Externally

- IIS Survey (2000) – 68% of attacks are *internal*

- Protect Network AND Data

- Data is usually the target of an attack, not the “network”



YOU'RE PROTECTED AGAINST HACKERS, VIRUSES AND WORMS.

CHUNKY BUT WHAT ABOUT ROSE IN PEDIATRICS?

IN TODAY'S BUSINESS CLIMATE



CONSUMER INFORMATION

BUSINESS INFORMATION

PRESS ROOM

RESOURCES

EN ESPANOL

FOR KIDS



HOT LINKS



FOR KIDS: Are you a Safe Cyber Surfer? Take our quiz to find out!

How to Stay Safe Online if You Use High-Speed Internet Access

Dial in to Online Safety

RESOURCES: Check This Out!



INTRODUCTION

Our access to information and entertainment; credit and financial services; products from every corner of the world – even to our work – is greater than earlier generations could ever have imagined. Thanks to the Internet, we can order books, clothes, appliances and gifts online; book a hotel room across the ocean; check our credit card and bank balances 24 hours a day; or access our offices from an airport thousands of miles away.

And yet, while the Internet helps make our lives richer and more convenient, it also provides a gateway to our personal information; our homes, families and worksites; our security and safety. Viruses, hackers and worms have become the stuff of headlines, with results that can range from mere headaches to complete havoc.

The good news is that securing your computer is largely a matter of routine maintenance. Using strong passwords, installing personal firewalls, and regularly running updated virus software can go a long way toward protecting your computer, your information, and your peace of mind from computer creeps who try to slow down a network operation, or worse yet, steal personal information to commit a crime.



The Federal Trade Commission has created this website for consumers and businesses as a source of information about computer security and safeguarding personal information. All over the site, you'll see Dewie the e-Turtle. Dewie's wired, but carries his security shell no matter what he's doing on the Internet. Even though turtles take their time, Dewie crosses the finish line first because he takes the appropriate steps to avoid a disaster. From time to time, Dewie will post new materials on this site with useful information for computer users, from kids to businesspeople. Check it often for updates.

In the **Resources** section, you'll find links to information security materials from other government agencies and non-profit organizations, including the **National Cyber Security Alliance's StaySafeOnline.info** and the beta version of the **Internet Education Foundation's Privacy Toolbox**.



Security – What to do?



- Standards Emerge!
 - Data encryption to the column level
 - Role-based access control to the row level
 - Role-based access for DBAs
 - Transaction auditability
- Pay now, or Pay Later!

A look ahead...

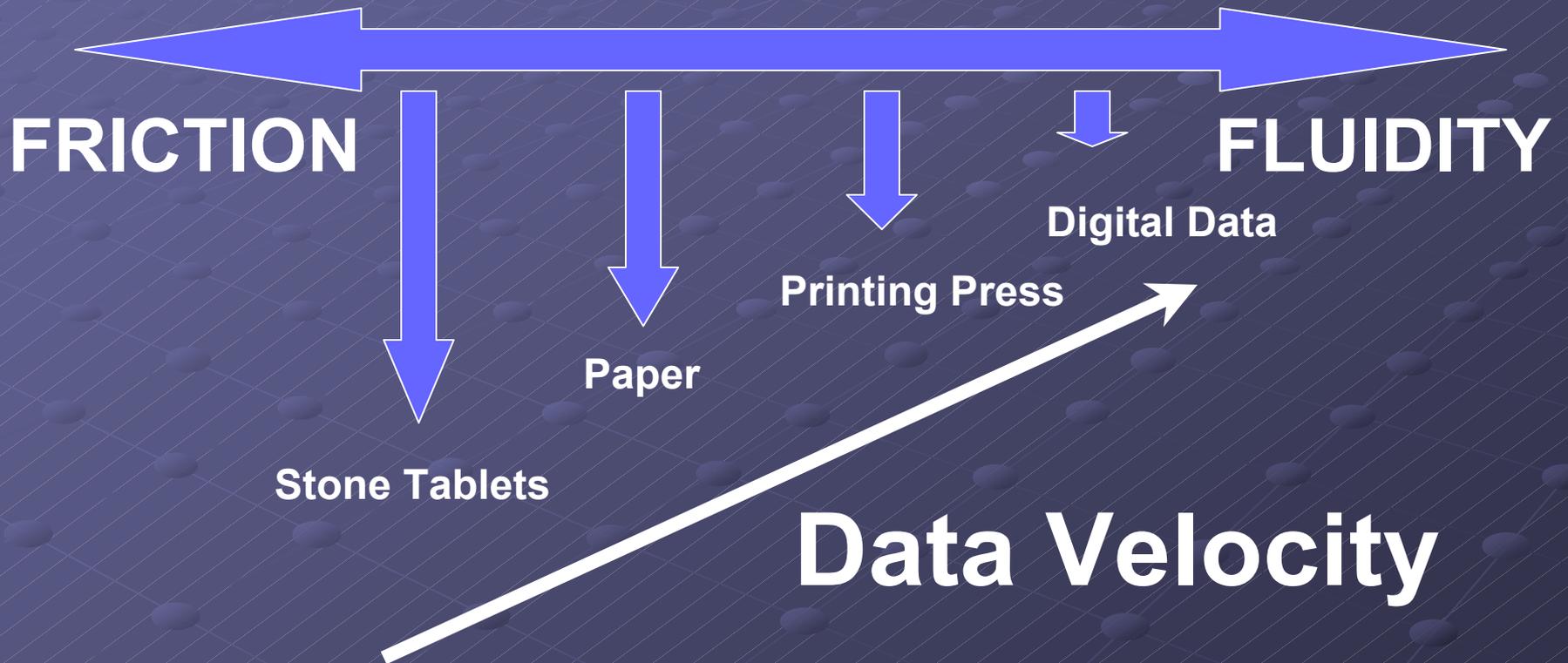
Emerging Privacy Issues

- *Data Fluidity*
- *Data Aggregation*

- Personalization
- Biometrics
- Persistent Surveillance
- RFIDs
- Geo Privacy



Data Friction and Fluidity



Data Aggregation

Data Silos

Aggregation



Core Data



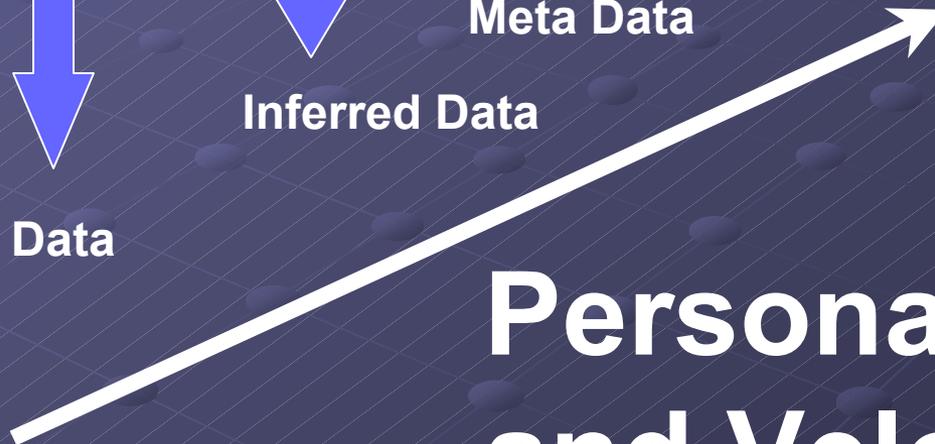
Inferred Data



Meta Data



Derivative Data



Personalization
and Velocity

“Hello, John Anderton”



Personalization

- As data becomes more fluid, personal targeting becomes possible
- Privacy issues prevail
- The rise of GUIDs
 - Never entering your name, password, address and credit card again
- Do we really want this?



Quaker nuFood's

your life

Nutrition Facts
 Serv. Size 1 box (30g)
 Calories 110†
 Fat Cal. 40
 †(50% of 120 Cal. Male)

Total Energy	50%
Total Fat	25%
Saturated Fat	25%
Trans Fat	0%
Cholesterol	15%
Sodium	20%
Total Carb.	25%
Fiber	20%
Sugars	5%
Protein	20%

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INGREDIENTS: FAST-FRO TRANSGENIC ABALONE, MECHANICALLY SEPARATED CAECILIAN MEAT, ROUNDUP READY ALGAE, SULFORAPHANE OR FORTIFIED BROCCOLI, VACCINE SOY BEAN POWDER, NATURAL COLORING, ARTIFICIAL MOUTH-FEEL TEXTURIZERS, BITTERBARK SEA SALT.

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*Milk (milk proteins, angiotensin derivatives, and liquid milk). From Quaker Oats Co.

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The Cereal Specialty Formulated for **CRAIG SHAPIRO**

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Your Recommendations

Technology and Privacy

This series of 10 scholarly essays lays a foundation for understanding the current state of technology-based privacy issues. The diverse group of contributors encompasses the fields of communications, human-computer interaction, law, political science, and sociology. Each contributor provides a... [Read more](#)

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Biometrics Everywhere

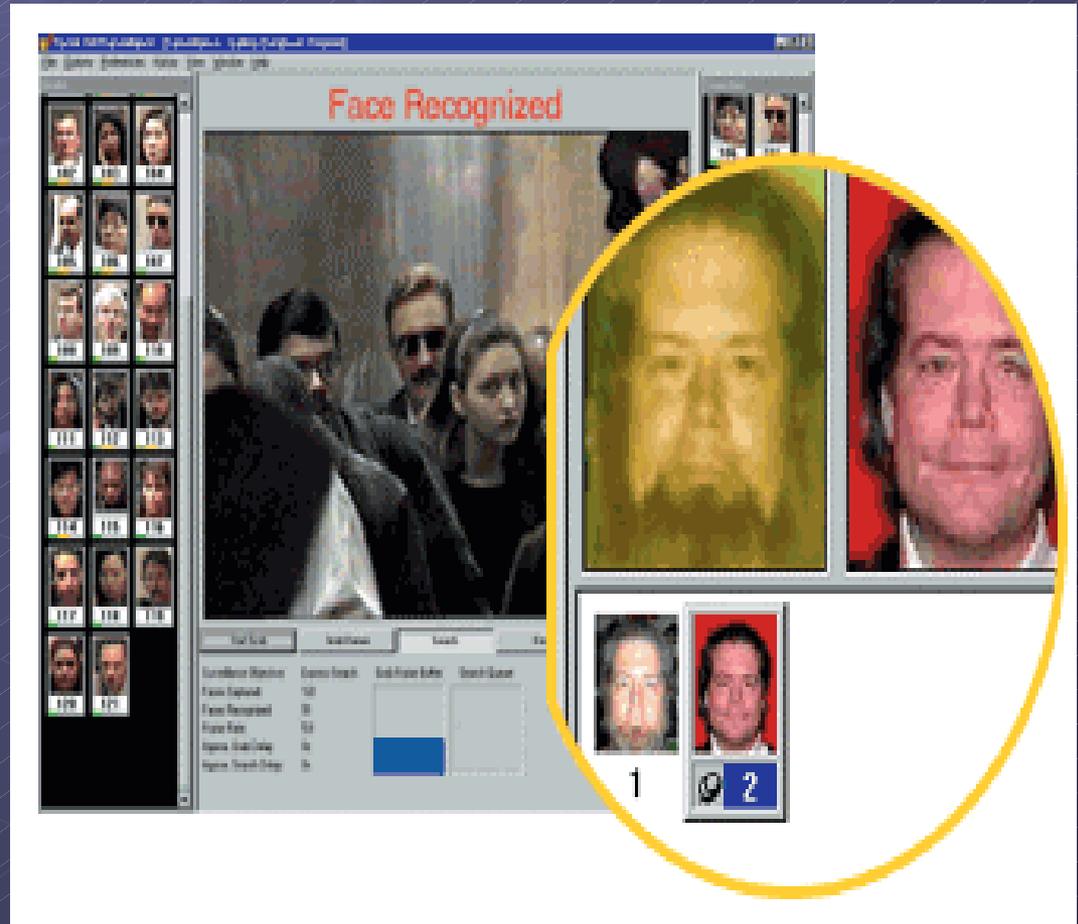
● Biometric Attestations

- Faceprints, eyeprints, fingerprints, hand geometry, voice recognition, vein patterns, gait recognition, odor...



Face Recognition

- 2001 Superbowl
- Airports
- Urban hot spots
- Business campus



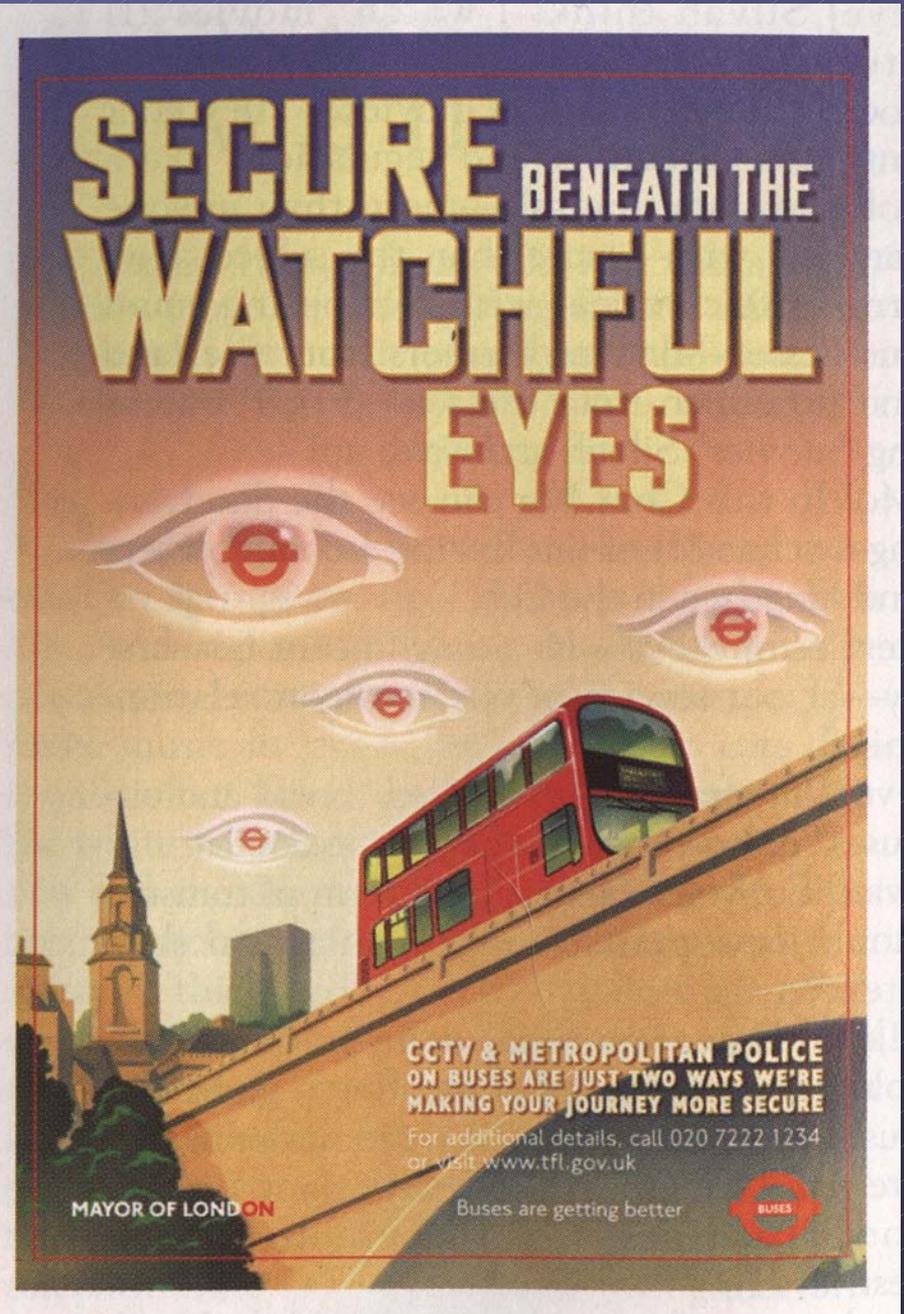
Iris/Fingerprint Recognition

- Airports (Vancouver and Toronto)
- Signatures
- High security buildings



Persistent Surveillance

- “He’s been idented on the Metro...”



THE BEST THING ABOUT
THE INTERNET IS THEY
DON'T KNOW YOU'RE A DOG.



You're a four-year-old German Shepherd-Schnauser mix, likes to shop for rawhide chews, 213 visits to Lassie website, chatroom conversation 8-29-99 said third Lassie was the hottest, downloaded photos of third Lassie 10-12-99, e-mailed them to five other dogs whose identities are...



TALS

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WITH DUE RESPECT TO THE NEW YORKER

DID YOU
MARK
ALL THAT?

10/13/00

10/13/00

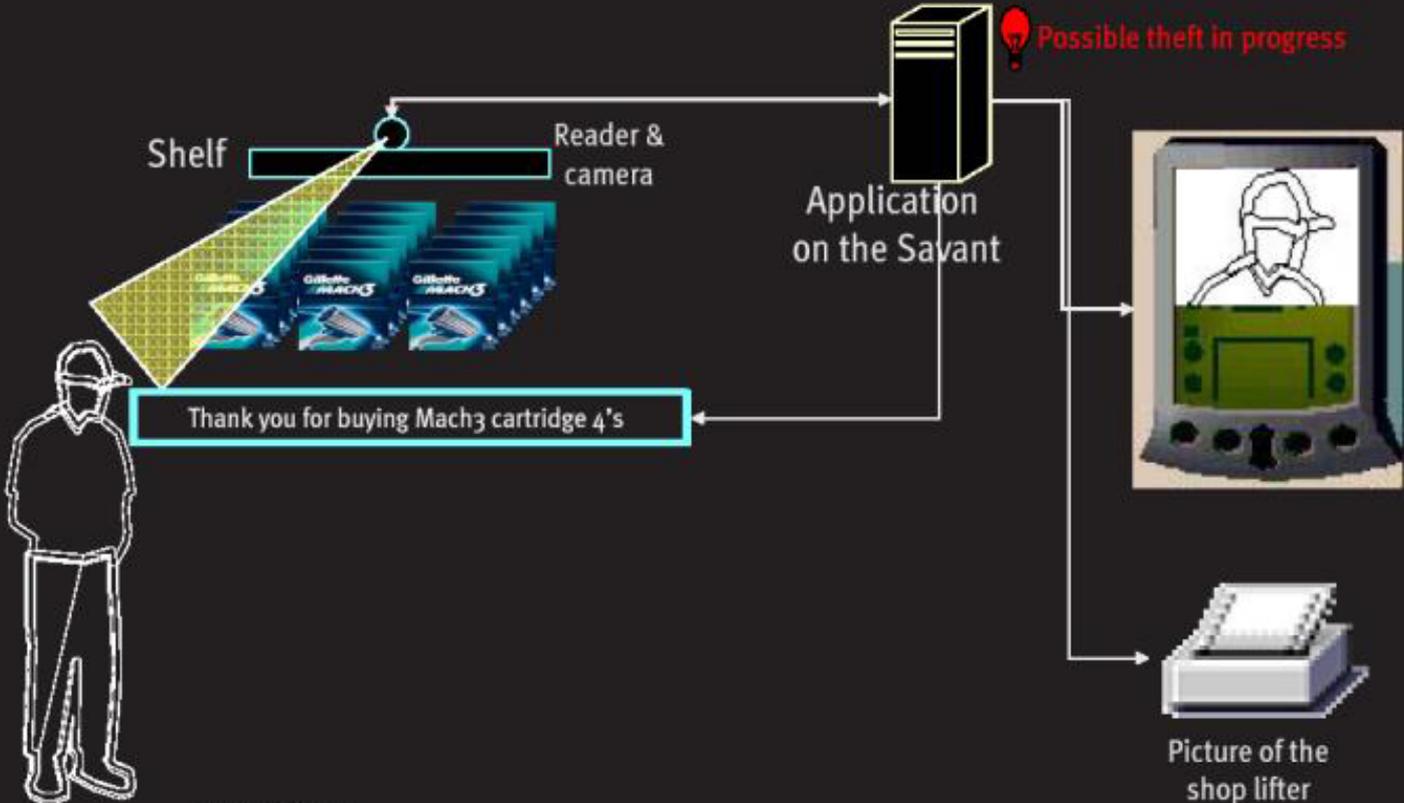
RFIDs



RFIDs



RF ENABLED SHELF: THEFT PREDICTION & DETERRENCE AT SHELF



Bulk Theft

Geo Privacy

- e911
- Geo Targeted Wireless Services
 - “Smell that coffee? Come in for a cup!”



Lessons to be Learned



- Data Becomes Much More Fluid
- Data Management Becomes Much More Difficult
- Data Moves More Quickly
- Smart Companies will Harness the Power of Data Fluidity to Reduce Costs and Improve Their Value Propositions

● THANKS!

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