
Reading Discussion

Blown to Bits

Chapter 2

Naked in the Sunlight
Privacy Lost, Privacy Abandoned

Notes for CSC 100 - The Beauty and Joy of Computing
The University of North Carolina at Greensboro

Question 1....

Describe the heart of the chapter in two (or three) words

Question 2...

The authors' analogy was to "footprints" and "fingerprints"...

What's the difference?

Can you give a few examples of each?

Digital Tracks Everywhere... examples

Footprints ("data trails we leave intentionally")

- Pictures posted to social networking web sites
- Tax records, phone bills, financial transactions, ...
- Customer loyalty cards
- Car tracking - GPS in rental cars, data recorders in all cars, toll speed-pass

Fingerprints ("data trails of which we are unaware or unconscious")

- Metadata in pictures (GPS, camera serial number, etc.)
- Printouts from color laser printers
 - <http://33bits.org/2011/10/18/printer-doespervasive-tracking-and-the-transparent-society/>
- Web browsing or search history
- An additional one: POSTNET printed on US mail for routing

Views toward privacy

Scott McNealy, (CEO of Sun at the time):

"You have zero privacy anyway. Get over it."

Are there generational differences?

Does that come from age, or culture change?

Privacy drastically different from 50 years ago.

How did this happen?

How do you boil a frog?

(This anecdote apparently isn't true... just so you know)



What privacy do you give up in "I Agree" buttons?

What about at UNCG? By using UNCG resources (Blackboard, E-mail, etc.):

No University employee, student or any other user shall have any expectation of privacy in the material or information sent or received using any portion of the University information system infrastructure, information systems, or systems containing University information assets. For security, legal, investigative, policy compliance, quality of service, and infrastructure maintenance purposes, authorized employees within ITS, and those University employees outside ITS with responsibilities necessitating access, may monitor information system and infrastructure activity and/or content, in the course of discharging their duties.

Source: UNCG Policy on "Acceptable Use of Computing and Electronic Resources"
http://policy.uncg.edu/acceptable_use/

From student comments

Several students (> 5) were surprised about EDRs in cars

- And a few had gotten tickets from photos!

Interest in RFID (on following slides)

Several mentions of NSA

- Classified documents revealed by Snowden
- Show massive data collection effort
- Where to store all this data?
 - See the new \$2 billion NSA Utah data center!
 - Estimated storage: > 1 exabyte (1,000,000 terabytes)
 - Sucking up data for later analysis
 - Are they "collecting" data? (of course...)



Several students interested in RFID

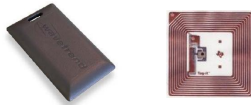
Electronic tags that can easily be made unique (unique serial numbers)

- Great for tracking!



Extremely low cost

Passive tags don't require a battery



Shipping containers, library books, individual products,

In clothing tags...

New to RFID? RFID NEWS Text size: T T T

Benetton to Tag 15 Million Items

The Italian retailer plans to put RFID labels on a complete line of clothes and track items from manufacturing plants to the point of sale.

March 12, 2003 - Last month, we asked RFID: The Next Fashion From Italy? We got the answer yesterday, when Philips Semiconductors revealed that Benetton, the clothing retailer based in Treviso, Italy, would be tagging a complete line of its clothes at more than 5,000 stores globally.

Philips says it will ship 15 million chips this year for use in labels that will be put on the clothes when they are manufactured. That makes this one of the largest RFID implementations ever by any company. The Gillette Co. recently ordered 500 million RFID tags, but those will be delivered over three years, and the company has only just begun to take delivery.

Clothes produced under Benetton's core brand Siseley will be fitted with RFID labels. The tagged items will be placed in shipping boxes, which will also be tagged. Benetton will be able to track clothes from the time they are produced until the time they are sold. The chips will remain active even after the products are sold, so they can be used to track returns as well.

ARTICLE TOOLS

- Turn Definitions Off
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PREMIUM CONTENT

Case Studies

Source: "RFID Journal", March 12, 2003

In Passports...

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Bad guys could read RFID passports at 217 feet, maybe a lot more

Black Hat demo shows how to do it for \$2,500

By Tim Owens, Network World

Aug 29, 2010 10:20 AM EDT

7 Comments Print

Whitebase

LAS VEGAS -- Radio frequency ID tags embedded in U.S. passports can be read hundreds of feet away, potentially making it inexpensive and easy to pick American tourists out of crowds for illicit purposes, a demonstration at Black Hat 2010 showed.

10 cutting-edge spy gadgets

Using off-the-shelf gear he bought in stores and on eBay for less than \$2,500, researcher Chris Paget pieced together a system that he says has read the tags at 217 feet, but he believes the same apparatus set up under better conditions could read them at 1,000 feet. He says he's willing to give it a whirl during the Black Hat conference if someone can get him access to a rooftop.

The same RFID chips are used in Canadian passports and in New York State drivers' licenses, he says. They are also used for inventory control at Wal-Mart.

Unintended consequences...

In School IDs

From wired.com:

Student Suspended for Refusing to Wear RFID Chip Returns to School

By GUY MONROE 08.22.11 3:59 PM

Photo: @intoxics



RFID-enabled ID cards with RFID-enabled chips. Photo: Network World/Robert Johnson/Reuters

A Texas girl suspended for refusing to wear a student ID card implanted with a radio-frequency identification chip is being re-admitted to her former high school where fall classes begin Monday, her lawyers said today.
