



Will People Ever Pay for Privacy?

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Overview

- The Importance of Privacy
 - What Is Privacy?
 - The Conflict
 - Lessons
 - How to Include Privacy in Product Plans
 - Conclusions



Does Privacy Matter?

- Polls say that it does
- Media reports pay it huge attention
- People seem to care quite deeply



They don't act that way

- Tell strangers all sorts of things
- Don't object to intrusive searches
- Don't buy privacy products in great bulk
- Author worked for Zero-Knowledge for three years
 - Still in business, not ruling the world.
- “People won't pay for privacy”



People Won't Pay for Privacy

- Wrong Conclusion
- People won't pay for things they don't understand:
 - The problem a product solves
 - The way it solves it
- Freedom Network had both those issues
 - People were amazingly excited by the idea



Quick Review Freedom Net

- Zero Knowledge's Anonymous IP net
 - Real time
 - Email, web, chat
 - No single trust point
 - Very expensive to operate (ZKS paid)
- No longer in operation



Privacy is Very Complex

- Includes Spam, ID theft, cookies, right to be left alone, informational self-determination, “lie and get away with it,” and abortion
- Includes unobservability, untracability, data protection
- People pay for curtains, unlisted phone #s, and Swiss bank accounts



Privacy means too much

- The word has too many meanings
- People use it sloppily
- The result is confusion over what people want and will pay for



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What is Privacy?

Confusing!



Privacy is Many Things

- Spam, telemarketers
- ID theft, CC theft
- Cookies
- Total Information Awareness
- CAPPED II
- Curtains & Venetian Blinds
- Do Not Call lists
- Fair Information Practices and Data Protection Laws
- Right to be left alone
- Informational self-determination
- “Lie and get away with it”
- Abortion
- Gut feelings



Broad Set of Privacy Tech

- Cash and banks
 - Athenian banks and taxation
- Remailers
- Fake ID
- Curtains
- Anti-spyware



Complexity vs Engineering

- Complex systems are hard to build
- Fundamental Security principle
- Privacy is a very complex issue
- Maybe the law can help?



Laws Much More Uniform

- Almost all built on Fair Information Practices
- Data Protection
- Tradeoff between
 - “You must give us this data”
 - “We’ll treat it fairly”
 - Mandatory tradeoff (one size fits all)



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Two Important Conflicts

- Data collection, protection, use
- Privacy is fuzzy and complex



Data Collection, Protection

- Business collects data for various good reasons
- Wants to maximize value from data
 - Legal in US
 - Data Protection law in “rest of the world”
- Individuals are often disempowered



Externalities

- A situation in which someone's well-being is affected by another's action, and they have no control of, or involvement in that action
- Pollution is a classic example



Looking at the Externality

- Storage of data creates privacy hazard
- (Computer security stinks)
- Users are not in a position to insure against risk
 - Hard to measure value
 - Hard to measure risk
 - Risk is a likelihood of a hazard leading to damage
- May lead to tort claims



Risk & Externality

- *Business are not motivated to protect data as well as the individual who will be hurt by its release*
- AIDS patient lists
- Many people not comfortable with this tradeoff
 - “Privacy Extremists”



Both Sides Are Rational

- Business needs certain data to function
- Customer doesn't trust the business
- Lets not even talk about secondary uses (yet)



Both Sides Are Emotional

- People are tired of privacy invasions
 - Ask the travel business about CAPPS II
- Businesses are tired of privacy complaints
 - Ask your HR person for privacy problem stories...but only over beer.



Privacy is Fuzzy & Complex

- Many meanings of the word make it easy to talk about different things
 - Add to economic and emotional conflict
 - Good recipe for pain and suffering



Zero-Knowledge Experience

- Sold really cool Freedom Network anonymous IP service
- Consumers don't understand online privacy invasion
- Consumers don't understand "Anonymous IP"



Zero-Knowledge, cont

- It didn't do well in the market
- What can we learn from this?
- NOT: "People won't pay for privacy"
- Service didn't meet a meaningful threat that the users cared about



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Match Threats and Defense

- Both real threats, and perceived ones
- Your collection and storage of data is a threat
- Don't take that personally, its just economics of externalities



Threat: ID Theft

- Two major types:
 - Account takeover
 - Application Fraud
- Now an insurable risk
 - <http://www.msnbc.com/news/910153.asp?0cv=TB10&cp1=1>
 - “time and money it takes you to wade through the logistical and legal paperwork.”



Account Takeover

- Consumers very aware of threat
- Collected carbons
- Visa: Don't print entire CC # on receipt
- Matches threat & defense in customer visible way
- Doesn't address storing CC# in db
 - May well be a worse problem
 - But not visible to consumer



Account Takeover (2)

- Digital Cash
 - Way cool technology
 - “Too much work for the consumer”
 - Actually, too much work because the consumer doesn’t see the benefits, just the cost
- Poor matching of defense to perceived threat



The Hell With It?

- If consumers don't have a choice...
- Security vs privacy & the nature of trust
- Effort here will be rewarded
 - If it results in a visible difference
 - Laziness here exposes you to risk and customer hatred
 - Ask TRW Credit (formerly Experian)
- Talk to your regulators



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Privacy Impact Assessment

- What are you collecting, and why?
- What are you storing, and why?
- What are you selling to your partners...
- PIAs now mandated in many places
- See
 - <http://www.gov.on.ca/MBS/english/fip/pia/>
 - www.cio.gov/Documents/pia_for_irs_model.pdf
 - <http://www.anu.edu.au/people/Roger.Clarke/DV/PIA.html>



Beyond PIAs

- Minimize!
- The core consumer concern is that you're not trustworthy
- Don't argue, agree!
- "We don't want your data!"
- Collect less, use it better
- Think from customer's viewpoint

Washington Post



washingtonpost.com

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<Gavin> I hate those surveys they give

Gavin is a 102 year old Albanian reading the washingtonpost.com

<Smartboy> I'm guessing they think they have a great readership in Newton Falls, Ohio (Zip code 44444)

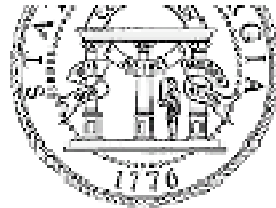


Washington Post Survey

- “What are you collecting, and why?”
- WP is collecting demographics
 - Probably to help sell ads
 - Ad sales, prices keep falling
 - Data that everyone knows to be bad can't help
- Comments at bottom were unprompted as I was writing presentation (IRC channel)

State of Georgia

GA Identity
Theft



STATE OF GEORGIA

Governor's Office of
Consumer Affairs

GA Identity
Theft

Your Personal Information

First Name:

Last Name:

Address:

Apt. or Suite No.:

SSN:

 - - 123-45-6789

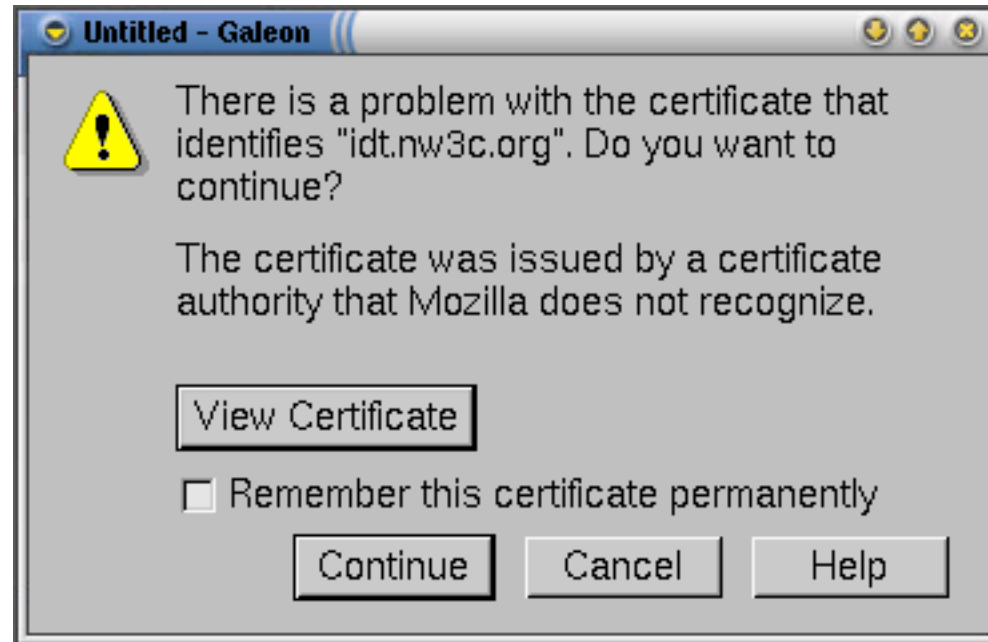
Date Of Birth:

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State of Georgia





State of Georgia

- Deserves kudos for doing something
- Could be more sensitive
 - Collecting everything needed to commit more ID theft in one place
- Very privacy sensitive audience
- No clear statement of what's mandatory
- No clear statement of data use
 - (May be concealed in long legalese)



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Privacy is...

- Complex
- Multi-faceted
- A cause of heartache all around
- Manageable



Risk and Externality

- Promises won't satisfy the growing privacy camp
- Understand the problem
 - Divide and conquer
- Turn it against your competitors
- Toolset for
 - Understanding
 - Improving