

IT Ethics

Privacy

H. Turgut Uyar

2004-2016

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Privacy

- ▶ accessibility privacy
- ▶ right to be left alone
- ▶ decisional privacy
- ▶ freedom from interference in personal affairs
- ▶ informational privacy
- ▶ control over personal data

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Nothing to Hide?

Google's Schmidt Roasted for Privacy Comments

COMMENTS

By Jared Newman, PCWorld
Dec 11, 2009 9:06 AM

An Internet privacy watchdog has blasted Google chief executive Eric Schmidt for his come



nts on Internet privacy, saying his remarks suggest Google misunderstands basic lessons about why privacy is important. Lest anything be taken out of context, here's the full quote from Schmidt, uttered in an interview with CNBC:

"If you have something that you don't want anyone to know, maybe you shouldn't be doing it in the first place, but if you really need that kind of privacy, the reality is that search engines including Google do retain this information for some time, and it's important, for example that we are all subject in the United States to the Patriot Act. It is possible that that information could be made available to the authorities."

http://www.pcworld.com/article/184446/googles_schmidt_roasted_for_privacy_comments.html

- ▶ Eric Schmidt (Google - 2009):
"If you have something that you don't want anyone to know, maybe you shouldn't be doing it in the first place."

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Social Norm?

Facebook's Mark Zuckerberg says privacy is no longer a 'social norm'

Facebook founder Mark Zuckerberg has denounced privacy as a 'social norm' of the past as social networking's popularity continues to grow.



<http://www.telegraph.co.uk/technology/facebook/6966628/Facebooks-Mark-Zuckerberg-says-privacy-is-no-longer-a-social-norm.html>
http://www.theregister.co.uk/2007/12/03/zuckerberg_files/

- ▶ Mark Zuckerberg (Facebook - 2010):
"Privacy is no longer a social norm."

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Privacy Value

- ▶ privacy is not a universal value
- ▶ is privacy an intrinsic value?
- ▶ security, autonomy not possible without privacy
- ▶ ability to form relationships in a wide range

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Surveillance

- ▶ many technologies that can be used to track people
- ▶ credit cards
- ▶ cell phones
- ▶ surveillance cameras
- ▶ face recognition, license plate recognition
- ▶ ...

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Surveillance Example

Student says school webcam spied on him at home

By Nicole Bliman, CNN
February 19, 2010 -- Updated 2019 GMT (0419 HKT)



Pennsylvania's Lower Merion School District, which faces a federal lawsuit, is proud of its laptop program, a rep says.

STORY HIGHLIGHTS

- Pennsylvania parents sue school district, school chief, board over son's laptop

The lawsuit seeking class-action status was filed Wednesday in U.S. District Court for the Eastern District of Pennsylvania.

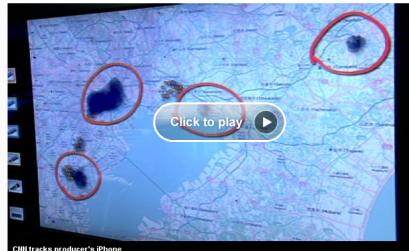
<http://edition.cnn.com/2010/CRIME/02/19/laptop.suit/>

- ▶ a school remotely activates webcams on computers issued to students (2010)

Surveillance Example

Report: iPhones secretly track their users' locations

By John D. Sutter, CNN
Filed under: Mobile



STORY HIGHLIGHTS

- Apple devices appear to be tracking their owners' locations and storing data about people's whereabouts without their knowledge, according to a report posted Wednesday on a site called iPhone Tracker.

<http://edition.cnn.com/2011/TECH/mobile/04/20/iphone.tracking/index.html?hpt=T1>

http://news.cnet.com/8301-31921_3-20057329-281.html

- ▶ Apple devices secretly report their location (2011)

RFID

- ▶ inventory
- ▶ livestock
- ▶ pets
- ▶ kids
- ▶ inmates
- ▶ immigrants

Article:
Proposal to Implant Tracking Chips in Immigrants

Bill Christensen
Date: 31 May 2006 Time: 03:04 PM ET

FOLLOW US SHARE Tweet

Scott Silverman, Chairman of the Board of VeriChip Corporation, has proposed implanting the company's [RFID tracking tags](#) in immigrant and guest workers. He made the statement on national television on May 16.

Silverman was being interviewed on "Fox & Friends." Responding to the Bush administration's call to know "who is in our country and why they are here," he proposed using VeriChip RFID implants to register workers at the border, and then verify their identities in the workplace. He added, "We have talked to many people in Washington about using it...."

<http://www.livescience.com/10498-proposal-implant-tracking-chips-immigrants.html>

Internet Tracking

- ▶ cookies
- ▶ JavaScript codes
- ▶ web bugs
- ▶ IP addresses
- ▶ <https://www.browserleaks.com/>

Internet Tracking Example

- ▶ many sites use Google Analytics for visitor statistics
- ▶ Google tracks IP addresses of visitors of these sites
- ▶ it can determine who the user is if that user has a Google account

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Surveillance Example

The NSA Is Using Google's Advertising Cookies To Track Its Targets



The National Security Agency is using the tracking data intended for Google's advertisers to locate its targets.

According to the Washington Post's new analysis of an



AP Images/Keith Alexander
NSA Director General Keith Alexander maintains that his agency's tactics are lawful and used against foreign adversaries.

<http://www.businessinsider.com/the-nsa-uses-google-cookies-for-hacking-2013-12>

- ▶ NSA uses Google's cookies for tracking (2013)

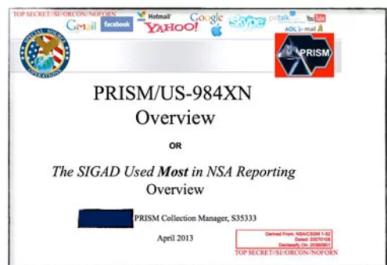
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Surveillance Example

NSA Prism program taps in to user data of Apple, Google and others

- Top-secret Prism program claims direct access to servers of firms including Google, Apple and Facebook
- Companies deny any knowledge of program in operation since 2007

- [Obama orders US to draw up overseas target list for cyber-attacks](#)



◀ A slide depicting the top-secret PRISM program.

<http://www.theguardian.com/world/2013/jun/06/us-tech-giants-nsa-data>

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Data Protection

- ▶ states and private institutions collect large amounts of data about individuals
- ▶ for advertisement or improving service support
- ▶ institutions know a lot about the individual
- ▶ individual knows very little about the institution

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Social Networks

Facebook is "deliberately killing privacy", says Schneier

13 OCTOBER 2010 Daniel Shane



Security expert hits out at social networking site and others for trading in privacy for profit

Social networking websites are "deliberately killing privacy" in order to make a profit, according to renowned security author Bruce Schneier.

Speaking at the RSA Europe security conference in London on Tuesday, the BT Counterpane CTO cited Facebook as the most heinous example of social networks cashing in on users' openness toward sharing personal details. "Don't make the mistake of thinking you're Facebook's customer, you're not – you're the product," Schneier said. "Its customers are the advertisers."

<http://www.information-age.com/channels/security-and-continuity/news/1290603/facebook-is-deliberately-killing-privacy-says-schneier.shtml>

- ▶ Bruce Schneier (2010):
"Don't make the mistake of thinking you're Facebook's customer, you're not – you're the product.
Its customers are the advertisers."

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New Problems?

- ▶ amount of collected data
- ▶ speed at which data can be transferred
- ▶ persistence of data
- ▶ quality of data: detailed profile

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Persistence of Data

Google CEO Suggests You Change Your Name to Escape His Permanent Record

By Marshall Kirkpatrick | August 16, 2010 11:52 AM | [View Comments](#)

Tweet



Google CEO Eric Schmidt has a great way of making public statements that are at once frank, unorthodox, thought provoking – and a little frightening. This weekend *The Wall St. Journal* ran an interview with Schmidt that offered tidbits like that on a wide range of topics. One statement in particular, that Schmidt thinks teenagers should be entitled to change their names upon reaching adulthood in order to separate themselves from the Google record of their youthful indiscretions, is something worth stopping to take note of.

- ▶ Eric Schmidt (2010):
"Many young people will have to change their names on reaching adulthood."

"I don't believe society understands what happens when everything is available, knowable and recorded by everyone all the time."

<http://www.wsj.com/articles/SB10001424052748704901104575423294099527212>

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Which Data Is Valuable?

- ▶ name, birth date, address, phone number, ...
- ▶ purchases
- ▶ phone, e-mail, messaging, ...
- ▶ political and religious beliefs
- ▶ sexual orientation
- ▶ health data
- ▶ income data
- ▶ visited web sites
- ▶ queries in search engines
- ▶ ...

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Which Data Is Sensitive?

- ▶ sensitivity levels: secret, confidential, social, public, ...
- ▶ varies from one person to another
- ▶ not sensitive on its own but sensitive when merged
- ▶ all personal data is sensitive

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Social Network Data

- ▶ burglars choose which houses to rob by checking Facebook status reports (2010)

Burglars used social network status updates to select victims

I'm away from home PleaseRobMe.com

By John Leyden · Get more from this author

Posted in Music and Media, 13th September 2010 12:32 GMT

US police reckon a band of burglars used social network status updates to select victims.

The alleged thieves carried out an estimated 50 burglaries in and around Nashua, New Hampshire, after gaining intelligence on properties that had been left vacant from status updates on social networking sites, such as Facebook.

http://www.theregister.co.uk/2010/09/13/social_network_burglary_gang/

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Problems

- ▶ collecting data illegally or without approval
- ▶ using data not in accordance with purpose
- ▶ not securing data
- ▶ transferring data without approval
- ▶ merging data with other data without approval
- ▶ people not knowing what data is kept about them and not being able to fix errors

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Collecting Data

- ▶ who can collect which data?
- ▶ suitability for purpose
- ▶ under which circumstances?
- ▶ legality
- ▶ by notifying people and taking their consent

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Data Collection Example

Street View cars grabbed locations of phones, PCs

by Declan McCullagh | July 25, 2011 12:14 AM PDT
Follow @declanm

Comments 68 More +

Summary: **scoop** Google's Street View cars collected the locations of millions of laptops, cell phones, printers, and other Wi-Fi devices around the world, CNET has learned.



Some locations that Google associated with WiFi devices spotted in a San Francisco coffee shop.

scoop Google's Street View cars collected the locations of millions of laptops, cell phones, and other WiFi devices around the world, a practice that raises novel privacy concerns, CNET has confirmed.

http://news.cnet.com/8301-31921_3-20082777-281/street-view-cars-grabbed-locations-of-phones-pcs/

- ▶ Google Street View cars collect data about WiFi access points and devices that use them (2010)

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Use of Data

- ▶ use of data consistent with purpose of collecting
- ▶ damaging the owner of data: identity theft, blackmail
- ▶ rules and checks about who is accessing data and under which circumstances
- ▶ access by technical personnel

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Data Misuse Example

Oz 'pseudo-ID card' database racked by identity fraud claims

19 sacked, 92 resigned

By OUT-LAW.COM · Get more from this author
Posted in Music and Media, 28th August 2006 08:02 GMT

Australia's citizen database was routinely searched for personal reasons by government agency employees, some of whom have been sacked. Police are now investigating allegations of identity fraud resulting from the security breaches.

There were 790 security breaches at government agency Centrelink involving 600 staff. Staff were found to have inappropriately accessed databases containing citizens' information.

http://www.theregister.co.uk/2006/08/28/oz_id_database_misused/

- ▶ Australian government employees use citizen data for identity theft (2006)

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Data Security

- ▶ data can be exposed
- ▶ security holes, errors, carelessness
- ▶ data collectors must ensure security

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Data Theft Example

Facebook privacy flaw exposes Mark Zuckerberg photos

A flaw in Facebook has granted prying users access to supposedly private photographs, including those of the website's chief executive, Mark Zuckerberg.



<http://www.telegraph.co.uk/technology/facebook/8938725/Facebook-privacy-flaw-exposes-Mark-Zuckerberg-photos.html>

- ▶ private photos leaked from Facebook (2011)

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Data Theft Example

- ▶ celebrity photos stolen from Apple iCloud (2014)

FBI, Apple Probing Alleged Nude Photo Hack of Jennifer Lawrence and Others



How Safe Are Your iCloud Photos? 1:51
The FBI and Apple said Monday they are investigating the apparent hacking of iCloud accounts that led to alleged nude photos of Jennifer Lawrence and other female stars being posted online. "We take user privacy very seriously and are actively investigating this report," Nat Kerris, Apple spokeswoman,

<http://www.nbcnews.com/tech/security/fbi-apple-probing-alleged-nude-photo-hack-jennifer-lawrence-others-n193386>

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Data Theft Example

Hackers 'leak details of 13k users of PlayStation, Xbox and Amazon'

Hackers who say they are affiliated to Anonymous, the shadowy anarchist hacking collective, release document 'containing passwords and credit card numbers'



<http://www.telegraph.co.uk/news/worldnews/11314805/Hackers-leak-details-of-13k-users-of-PlayStation-Xbox-and-Amazon.html>

- ▶ credit card data and passwords stolen from PlayStation, Xbox, Amazon (2014)

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Data Theft Example

Kızıl Hackerlar: Şifreler 'emniyet'sizdi



Kızıl Hackerlar internet sitesini çökerttiler Ankara Emniyeti'nin dijital verilerini sakladıkları sistemlerin şifrelerinden birinin '123456' olduğunu söyledi.



TARİH 04 Mart 2012 04:05 T24- Kendilerini sosyalist olarak tanımlayan Kızıl Hackerlar (RedHack) internet sitesini çökerttiler Ankara Emniyet Müdürlüğü'nün dijital verilerini sakladıkları sistemlerin şifrelerinden birinin '123456' olduğunu söyledi.

<http://t24.com.tr/haber/kizil-hackerlar-konustu-sifreler-emniyetsizdi,198480>

- ▶ personal data and criminal tips stolen from police computers (2012)

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Data Loss Example

Brown apologises for data blunder

Deborah Summers, politics editor, and Allegra Stratton
guardian.co.uk, Wednesday 21 November 2007 15.53 GMT



Gordon Brown at prime minister's question time on November 21 2007. Photograph: PA Wire

The government has apologised to the country for the loss of two CDs containing the personal information of 25 million people. Gordon Brown, the prime minister, today faced down loud barracking and made an official apology for the loss of the discs. The CDs are still missing.

<http://www.guardian.co.uk/politics/2007/nov/21/economy.uk>

<http://news.bbc.co.uk/2/hi/entertainment/7174760.stm>

Data Exposure Example

AOL's disturbing glimpse into users' lives

By Declan McCullagh
Staff Writer, CNET News

Related Stories

AOL apologizes for release of user search data

August 7, 2006

Google, feds face off over search records

AOL's publication of the search histories of more than 650,000 of its users has yielded more than just one of the year's bigger privacy scandals.

The 21 million search queries also have exposed an innumerable number of life stories ranging from the mundane to the illicit and bizarre.

For its part, AOL has apologized for a researcher's disclosure of the massive database and has yanked the file from its Web site. It was too late: The database already had been mirrored.

http://news.cnet.com/AOLs-disturbing-glimpse-into-users-lives/2100-1030_3-6103098.html

- ▶ AOL publishes search records of thousands of users (2006)

Example: Italy tax records

Every Italian's tax bill published online
Makes UK government look like amateurs
By John Oates • Get more from this author

Posted in Government, 1st May 2008 09:20 GMT

The British government might be useless at keeping our data safe, but the outgoing Italian government has gone one better - it has published the tax details of every single Italian on a website and made them available to anyone interested.

The Italian revenue deliberately published the information in an effort to increase transparency and reduce tax evasion.

http://www.theregister.co.uk/2008/05/01/italy_publishes_tax_details/

- ▶ Revenue Service publishes tax details of all citizens (2008)

Transferring Data

- ▶ under which circumstances should data be transferred to third parties?
- ▶ advertisers, business partners, security agencies
- ▶ consent of related persons

Data Transfer Example

Why Robert Bork (Indirectly) Kept Netflix Off Facebook

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ADAM CLARK ESTES | 746 Views | JUL 26, 2011
Sometime before now and the fall, Netflix will launch their Facebook integration offering. Likely a low friction way to like, comment on and share movies with friends. Netflix has been working on this for a while, and with founder Reed Hastings' recent addition to Facebook's board, some believe this is just the beginning of a broader shift to make Netflix a more social, web-based company. Don't get too excited, though. The Facebook integration will only be available in Canada and Latin America at launch time due to an old privacy law in the United States. Netflix explained in their quarterly earnings report.

<http://www.theatlanticwire.com/technology/2011/07/why-robert-bork-indirectly-kept-netflix-facebook/40408/>

- ▶ judge nominated for Supreme Court
- ▶ journalist publishes movies he rented (1988)
- ▶ *Video Privacy Protection Act*

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Data Transfer Example

The Dawn of Stalking: The Murder of Rebecca Schaeffer



Twenty-one-year-old fresh-faced beauty Rebecca Schaeffer was co-star of the popular 1980s sitcom *My Sister Sam*. Schaeffer quickly climbed the Hollywood ladder of success before a crazed fan, 19-year-old Robert Bardo, viciously accosted her. Bardo had been writing Schaeffer love letters for months. The actress was so thoughtful, she personally responded to each one of her fans, including Bardo.

On July 18, 1989, Schaeffer was prepared to meet director Francis Ford Coppola to audition for a role in *Godfather III*. Simultaneously, Bardo tracked down Schaeffer's home address and decided to pay her a visit in West Hollywood.

With his obligatory copy of *The Catcher in the Rye* in hand (the same book found in the possession of John Lennon's assassin Mark David Chapman), Bardo staked out Schaeffer's apartment building. He rang her direct intercom, but since it was broken, she came down to see who was there.

As Schaeffer opened the front door, Bardo plugged a single bullet into her chest and casually strolled off. The young actress died at the hands of her No. 1 fan.

It was learned later that Bardo obtained Schaeffer's address from a Tucson, Ariz., detective agency, which paid \$250 to retrieve the address from the California Department of Motor Vehicles.

<http://investigation.discovery.com/investigation/hollywood-crimes/schaeffer/rebecca-schaeffer.html>

- ▶ movie actress murdered in front of her house
- ▶ Dept. of Motor Vehicles sells driving license data (1989)
- ▶ *Driver's Privacy Protection Act*

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Data Sale Example

Toysmart Settles: Database Killed

Associated Press 01.10.05

WASHINGTON — In a case that could affect other fledgling dot-coms, a defunct online toy store will be paid \$50,000 and have its customer database destroyed rather than being sold off to pay creditors, lawyers said Tuesday.

Toysmart.com assured its customers that their personal information would never be shared with a third party, but the company took out an advertisement in *The Wall Street Journal* to sell the database after going out of business last May.

Internet privacy activists protested, claiming that if the sale of that information were allowed, it could encourage a wave of other failing dot-coms to abandon privacy assurances in return for cash.

<http://www.wired.com/politics/law/news/2001/01/41102>

- ▶ Toysmart privacy agreement: customer data will not be transferred to others
- ▶ goes bankrupt, tries to sell the data (2001)
- ▶ gets sued, data gets destroyed

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Data Sale Example

While Facebook & Twitter Sit on Sidelines, MySpace Jumps Into Bulk User Data Sales

By Marshall Kirkpatrick | March 12, 2010 10:30 AM | [View Comments](#)

Tweet



MySpace has taken a bold step and allowed a large quantity of bulk user data to be put up for sale on startup data marketplace [InfoChimps](#). Data offered includes [user playlists](#), [mood updates](#), [mobile updates](#), [photos](#), [events](#), [reviews](#), [blog posts](#), [names](#) and [zipcodes](#). Friend lists are not included. Remember, Facebook and Twitter may be the name of the game these days in tech circles, but [MySpace still sees 1 billion user status updates posted every month](#). Those updates will now be available for bulk analysis.

This user data is intended for crunching by everyone from academic researchers to music industry information scientists. Will people buy the data and make interesting use of it? Will MySpace users be ok with that? Is this something Facebook and Twitter ought to do? The MySpace announcement raises a number of interesting questions.

https://www.readwriteweb.com/archives/myspace_bulk_data.php

- ▶ MySpace puts up user data for sale (2010)
- ▶ names, zip codes, photos, playlists, blog entries, ...

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Data Merge Example

DoubleClick postpones data-merging plan

By Evan Hansen
Staff Writer, CNET News

Related Stories

Bowing to pressure from privacy advocates and consumers, online advertising giant DoubleClick today said it will hold off on plans to combine online and offline data that it collects on consumers.

"It is clear... I made a mistake by planning to merge names with anonymous user activity across Web sites in the absence of government and industry privacy standards," DoubleClick CEO Kevin O'Connor said in a statement on the company's Web site.

<http://news.cnet.com/news/0-1005-200-1562746.html>

http://www.businessweek.com/magazine/content/11_12/b4220038620504.htm

- ▶ DoubleClick: advertising
- ▶ Abacus: customer habits
- ▶ want to merge data
- ▶ cancelled due to pressure about privacy issues (2000)
- ▶ Google buys DoubleClick (2008)

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Legal Protections

- ▶ European Union has extensive legislation
- ▶ first data protection act in Germany Hessen (1970)
- ▶ USA has sector specific laws: credit, drivers, video, health, ...
- ▶ Turkey's discussions mostly framed by EU compatibility

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European Union

- ▶ EU Charter of Fundamental Rights
- ▶ right to demand protection of personal data
- ▶ legal and fair use; right to access to and make corrections in one's own data
- ▶ an independent authority that enforces regulations
- ▶ member countries have to pass laws in accordance with these principles

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European Laws

- ▶ Britain Data Protection Act (1984, 1998)
 1. fair and lawful processing
 2. obtained only for one or more specified and lawful purposes
 3. adequate, relevant and not excessive in relation to the purpose
 4. accurate and up to date
 5. kept for longer than is necessary for the purpose
 6. processed in accordance with the rights of data subjects
 7. measures against unauthorised processing and loss
 8. not to be transferred to a country without adequate protection

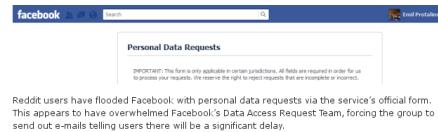
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Data Request Example

Reddit users overwhelm Facebook with data requests

By Emil Protalinski | September 27, 2011, 11:28pm PDT

Summary: Reddit users appear to have flooded Facebook with personal data requests. The social network has sent an e-mail to many of them saying it just can't keep up and they will have to wait.



Reddit users have flooded Facebook with personal data requests via the service's official form.

This appears to have overwhelmed Facebook's Data Access Request Team, forcing the group to send out e-mails telling users there will be a significant delay.

<https://www.zdnet.com/blog/facebook/reddit-users-overwhelm-facebook-with-data-requests/4165>

https://threatpost.com/en_us/blogs/twenty-something-asks-facebook-his-file-and-gets-it-all-1200-pages-121311

- ▶ Reddit users overwhelm Facebook with data requests (2011)
- ▶ 24 year old student gets document of 1200 pages

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Example: USA - EU passenger data

EU court annuls data deal with US

The European Court of Justice has annulled an EU-US agreement requiring airlines to transfer passenger data to the US authorities.



The court said the decision to hand over the data, including addresses and credit card details, lacked an "appropriate legal basis". The US said the deal was essential after the 9/11 attacks.

The US says the information helps identify potential terrorists. EU and US officials say they are confident a solution can be found to enable the data transfers to continue.

Stewart Baker, an assistant secretary of state for the US Department of Homeland Security, said: "I am confident that we will find a solution that will keep the data flowing and the planes flying."

The agreement demands that within 15 minutes of take-off for the United States, a European airline must send the US authorities 34 items of personal information about the passengers on board.

“It’s really a problem for the lawyers”
David Henderson, Association of European Airlines
Q&A: Passenger data row
Send us your views

<http://news.bbc.co.uk/2/hi/europe/5028918.stm>

<http://news.bbc.co.uk/2/hi/europe/8510471.stm>

- ▶ for flights to US, airlines have to submit passenger data
- ▶ European Court of Justice cancels deal (2006)
- ▶ European Parliament prevents deal for US intelligence agency access to European bank records (2010)

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USA

- ▶ Code of Fair Information Practices (1974)
 1. no secret record-keeping systems for personal data
 2. a way to find out what information about one's self is kept and how it is used
 3. a way to prevent information about one's self from being used for other purposes without consent
 4. a way to correct or amend a record about one's self
 5. organizations collecting personal data must assure reliability and security of data

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USA

- ▶ Code of Fair Information Practices
- ▶ only for government agencies
- ▶ records have to be searchable by identifying data
- ▶ no enforcing authority
- ▶ allows transfers for “routine use”

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USA Consumer Privacy

- ▶ Consumer Privacy Bill of Rights Draft (2012-)
- ▶ control of collected data and how it is used
- ▶ privacy and security methods that can be easily accessed and understood

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Turkey

- ▶ constitution: right to demand respect to private and family life
- ▶ constitution: communication secrecy
- ▶ personal data protection act draft

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Turkey

- ▶ Personal Data Protection Act Draft (2016)

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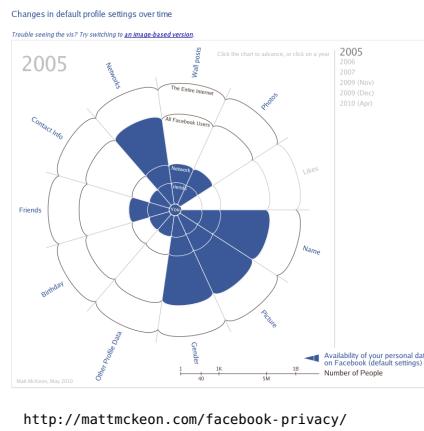
Institutional Policies

- ▶ institutions publish privacy policies
- ▶ clearly stating what data is collected for what purposes
- ▶ promise to use only for stated purposes
- ▶ promise not to give to third parties without consent
- ▶ opt-in instead of opt-out

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Privacy Evolution

The Evolution of Privacy on Facebook



<http://mattmckeon.com/facebook-privacy/>

- ▶ data is retained even if account is closed
- ▶ more and more data public by default
- ▶ complicated privacy settings

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Search Engines

- ▶ search engines anonymize search data after a period
- ▶ claims that anonymization is not effective
- ▶ some search engines don't record IP addresses:
Startpage, DuckDuckGo

<http://arstechnica.com/tech-policy/news/2009/09/your-secrets-live-online-in-databases-of-ruin.ars>

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Opt-In / Opt-Out Example

Why Facebook's Facial Recognition is Creepy

By Sarah Jacobson Purewal, PCWorld Jun 8, 2011 5:46 AM

I'm not sure if you've heard the news, but Facebook is officially getting super-creepy. Facebook announced Tuesday that it will be implementing facial recognition technology for all users in the next few weeks, semi-automating the photo-tagging process.

Sure, you can "opt-out" of the service, but it's a pretty weak consolation. After all, opting out won't keep Facebook from gathering data and recognizing your face—it'll just keep people from tagging you automatically.

The new facial recognition technology, which was announced in December but only introduced to a small test group, is basically Facebook's way of creating a huge, photo-searchable database of its users. And yes, it's terrifying.



http://www.pcworld.com/article/229742/Why_Facebooks_Facial_Recognition_is_Creepy.html

- ▶ Facebook, automatically recognizes faces in photos and tags people (2011)
- ▶ no consent from users

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User Protection Example

Google defies US over search data

The internet search engine Google is resisting efforts by the US Department of Justice to force it to hand over data about what people are looking for.



Google was asked for information on the types of query submitted over a week, and the websites included in its index. Google has been resisting the government request since August.

The department wants the data to try to show in court it has the right approach in enforcing an online pornography law.

It says the order will not violate personal privacy, but Google says it is too broad and threatens trade secrets.

Privacy groups say any sample could reveal the identities of Google users indirectly. And they say the demand is a worrying precedent, because the government also wants to make more use of internet data for fighting crime and terrorism.

<http://news.bbc.co.uk/2/hi/technology/4630694.stm>

http://www.theregister.co.uk/2010/10/27/amazon_sales/

- ▶ DoJ wants search data, Google doesn't comply (2006)
- ▶ Amazon sues request for customer purchase data, wins in court (2010)

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Personal Measures

- ▶ being sensitive about personal data
- ▶ need-to-know
- ▶ giving incorrect information
- ▶ creating data "noise"

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Data Noise

- ▶ creating lots of incorrect or irrelevant data
- ▶ which is the true data?

example

- ▶ swapping loyalty cards
- ▶ browser addon for doing random searches

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Data Sensitivity

How to sell your self for a song

The chance to win theatre tickets is enough to make people give away their identity, reveals a survey.



Many of those questioned revealed pet names too

Of those taking part 92% revealed details such as mother's maiden name, first school and birth date.

The detailed personal information was gathered by market researchers who asked the questions as part of a fake survey on theatre-going habits.

Dangling the chance to win free tickets was enough to make people surrender everything needed to impersonate them.

'Disturbing' results"

During the course of the survey many people freely volunteered key details such as name, address and postcode.

<http://news.bbc.co.uk/2/hi/technology/4378253.stm>

<http://nakedsecurity.sophos.com/2009/12/06/facebook-id-probe-2009/>

- ▶ more than 90% of participants give out sensitive data (2005)
- ▶ pet's name, mother's maiden name
- ▶ accept friendship requests on Facebook without considering (2009)

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Personal Measures

- ▶ using technology
- ▶ encryption tools
- ▶ privacy enhancing tools

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Encryption Tools

- ▶ e-mail encryption
- ▶ storage encryption
- ▶ zero knowledge services for backup, messaging, social networking

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Privacy Enhancing Tools

- ▶ proxy servers
- ▶ prevent ads, malicious code, and tracking
- ▶ anonymization networks
- ▶ help people in oppressive regimes
- ▶ also heavily used by criminals

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Browser Security

- ▶ blocking JavaScript
- ▶ blocking cookies
- ▶ blocking web bugs
- ▶ spoofing user agent headers
- ▶ spoofing referer headers

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References

Required Reading: Tavani

- ▶ Chapter 5: *Privacy and Cyberspace*

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