

CSE/ISE 312

Privacy (Part 2)

The Business and Social Sectors

- Marketing and personalization
- What we do ourselves
- Location tracking
- A right to be forgotten

Marketing and Personalization

- One of the biggest uses of personal info. by org., political parties, and businesses
- Marketing: To find new customers/members/voters, and to retain the old ones; advertise products, services, causes, determine prices, discounts, when and to whom
- Data mining
- Targeted ads based on purchase histories and online activities
 - Gmail claims it displays no untargeted banner ads

Informed Consent

- Targeted, personalized marketing is not unethical
- Concern is how marketers get the data
 - Collecting using consumer data without consent was widespread until late 1990s
 - Now sites, businesses, orgs publish their policies
 - Still, data firms build and sell large consumer profiles, making consent unclear
- Proposals
 - “Do not track” button in browsers proposed
 - Inform and remind users of unobvious data collection

Paying for Consumer Info

- Fill out entry form to a contest
- Store cards: discounts for tracking purchases
- Free products and services for permission to send ads and collect data
 - Gmail, social networking, free video sites
 - Free computer, iPod, software, Britannica
- Do people understand the potential consequences?

Our Social and Personal Activity

- Social networks
 - Our responsibility: what we share may risk our and our friends' privacy: opinions, gossip, pics
 - The company's responsibility: new features with unexpected privacy settings. E.g., news feeds
- Personal information in blogs and online profiles
 - Pictures of ourselves and our families
- File sharing and storage, cloud computing
 - Convenience, ease from own backups, but also risks

Location Based Services

- Services after identifying the location of a mobile device (since 2001)
- Use signal time delay to mobile stations or to satellites
- Performance is improved with Assisted GPS in which calculations are done by a network server
- Economics encourage advertising
- Identification is important to advertising

Example Applications

- Providing information about nearby commercial establishments
- Locating a stolen vehicle
- Alerting user if friends are nearby
- Location identification with a 911 call
- Locating people in rubble
- Tracking children on a field trip

RFID

- RFID tags are small devices that contain a computer chip and an antenna
 - The chip stores ID data and does processing
 - It communicates to a RFID reader
- Many usages
 - Supply chain management
 - Electronic toll collection, public transit card, parking
 - Tracking patients, kids, farm animals
- Allow constant surveillance; Security risk, misuse

Children and Tools for Parents

- Children are not able to make decisions on when to provide information. Vulnerable to online predators
- Parental monitoring uses software to monitor web usage
- Web cams to monitor children while parents are at work
- GPS tracking via cell phones or RFID
- Pros and cons?

A Right to Be Forgotten

- The right to have material removed
- US and EU are promoting such a legal right
- Many practical, ethical, social, legal questions arise
- negative right (a liberty)
- positive right (a claim right)
- Possible conflict with free speech, free flow of information, and contractual agreements

Government Systems

- Federal and local government agencies maintain thousands of databases containing personal information
- Opportunity for misuse of information

Privacy Act of 1974

“No agency shall disclose any record which is contained in a system of records by any means of communication to any person, or to another agency, except pursuant to a written request by, or with the prior written consent of, the individual to whom the record pertains... except”

- For statistical purposes by the Census
- For routine uses within a U.S. government agency
- For archival and law enforcement purposes
- For congressional investigations and other administrative purposes

Government Databases

Government Accountability Office (GAO)

- Congress' agency to monitor government's privacy policies, and enforces the Act
- Has noted numerous variations from the law; they do not adequately protect our data
- Rules for government use of commercial databases, or commercial search engine results are vague or missing

Case studies: College student database, data mining and computer matching to fight terrorism

Public Record Data

- Public Records - records available to general public (bankruptcy, property, arrest records, salaries of government employees, etc.)
- Governed by the Freedom of Information Act (FOIA): rules on access to records held by government bodies
 - Basic principle – burden of proof falls on the body asked for information (not requester)
 - Act applies to federal agencies, but states have similar laws
 - Includes electronic access (1996)
- Electronic access creates new privacy issues
- Examples

National ID System

- Social Security Numbers
 - Increasingly used as a national ID from 1936-1980s
 - Easy to falsify/inadvertently disclose, fraud/id theft
- A new national ID system - Pros
 - would require the card
 - have to carry only one card
 - Reduce fraud, illegal workers, terrorists
- A new national ID system - Cons
 - Threat to freedom and privacy
 - Large amount data on it increase potential for abuse