## **Privacy and Personal Information**

... balance between social need to use information and social right to privacy

# Privacy

- Privacy is
  - The right to confidentiality to limit spread of knowledge about oneself
  - The right to anonymity to be free from unwanted attention
  - The right to solitude a lack of physical proximity to others, in other words the right to one's own space
- Major issue on privacy: disclosure and use of our personal information
- Public information information given to public record, e.g. telephone directory
- Personal information information not part of public record

## Impact of Computer Technology

- IT has made possible the collection and the exchange of personal data on an unprecedented scale
  - Easy to collect
  - Easy to store
  - Easy to share, exchange
  - Easy to analyse
  - Easy to manipulate
- When our actions are recorded, we lose freedom.
- Balance between social need to use information and social right to privacy.

# Threatening Privacy by IT

- Invisible information gathering businesses (forms), ISP, cookies, spyware, web-based scripts, surveillance
- Secondary use for purpose other than the one for which is was supplied for
- Computer matching combining and comparing information from different databases
- Computer profiling using data in computer files to determine characteristics of people most likely to engage in certain behavior

## **Data Collection**

- Web site accesses.
- Email and chat.
- Transaction generated data:
  - RFID tracking.
  - Mobile phone tracking.
  - Vehicle tracking (intelligent road and car rental).
  - Credit card transaction.

# Spamming – rightful invasion?

- Unsolicited bulk e-mail consisting of marketing and advertising e-mails, junk mail, chain letters, and occupational spam
- An intrusive invasion of privacy: bandwidth, storage space, time, distraction
- Legal if provided with "opt-out" and "opt-in"
- The Privacy and Electronic Communication (EC Directive) Regulations, 2003:
  - "opt-in" scheme allowed
  - Sender must not conceal their identity
  - Sender must provide a valid address for "opt-out" requests

## Are we losing our rights to privacy?

- Innocent folks have nothing to hide.
- But, information can be use to incriminate.
- People under surveillance change behaviour to conform to the expectation of the observer.
- We are free not to reveal information.
  - But the price is high (e.g., stop using credit card, give up Internet surfing through UBD proxy, give up email, give up driving).

#### Privacy Legislation (UK & US)

- Upholding the notion of privacy
  - The 4<sup>th</sup> Amendment to the US Constitution, 1791
  - The Human Rights Act, 1998
- Protecting individual privacy
  - The Data Protection Act, 1998
  - The Freedom of Information Act, 2000
- Serving the interests of the state
  - The Regulation of Investigatory Powers Act, 2000
  - The USA Patriot Act, 2001

## EU data protection policy

- Personal data must be processed fairly and lawfully.
- Personal data must be used for its intended purposes.
- Only relevant information may be collected.
- Data must be accurate.
- Data must be kept only as long as necessary.

# ACM code of conduct pertaining to privacy

- Ensure the accuracy of data.
- Protect data from unauthorized access or accidental disclosure.
- Establish procedures to allow individuals to review their records and correct inaccuracies.
- Minimize the amount of personal information collected.
- Define and enforce retention and disposal periods.
- Personal information collected for a specific purpose must not be used for other purposes.

## Internet anonymizers

- Anonymity = lack of distinction of an individual.
- GNUnet: anonymous file sharing.
- Tor: anonymize browsing.
- Invisible IRC Project: anonymize IRC.
- Freenet: anonymous file sharing.
- Mixminion: Anonymous remailer.
- GNU Privacy Guard: not an anonymizer, but a "seal".
- Encryption technology: not an anonymizer, but "hide" personal information

## Individual responsibilities

- Keep your personal information safe
- Giving out friend's contact information only with consent
- Forwarding emails for sharing addresses in bcc and remove senders' details
- Respect that password is private do not discover
- Do not spam avoid forwarding chain letters
- Mind your own business curiosity may kill the cat

## Activity 12, 13 & 14

- 12: Read the article on "Does Google Know Too Much About You"
- 13: Read the article on "Facebook, Twitter Provide Sensitive Information for Corporate Criminals"
- 14: Discuss the issues of email forwarding. See attached email.