

# Engaging Privacy and Information Technology in a Digital Age

**Computer Science and  
Telecommunications Board**

**The National Academies**

William Webster and Jim Waldo, co-chairs

Herb Lin and Lynette Millett, principal staff

# Background

- Supported by Sloan, Carnegie, Kellogg, AT&T Foundations
- Charter
  - Provide ways of thinking about privacy and its relationship to other values and related tradeoffs
  - Consider IT trends as related to privacy concerns
  - Focused on
    - fundamental concepts of privacy
    - laws surrounding privacy
    - the trade-offs in societally important areas
    - impact of technology on conceptions of privacy

# Study Committee

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## *Staff*

*HERBERT S. LIN, Senior Scientist  
LYNETTE I. MILLETT, Senior Staff Officer  
KRISTEN BATCH, Associate Program Officer*

*JENNIFER M. BISHOP, Program Associate  
DAVID PADGHAM, Associate Program Officer  
JANICE SABUDA, Senior Program Assistant*

# Privacy as a Dynamic Phenomenon

- Privacy as an Information Concept
- Role of Information Technology
- Societal Shifts and Changes in Institutional Practices
- Discontinuities in Circumstance and Current Events
  - National Security and Law Enforcement
  - Disease and Pandemic Outbreak

# Key Concepts

- Personal Information, Sensitive Information, and Personally Identifiable Information
- False positives, False Negatives, and Data Quality
- Privacy and Anonymity
- Fair Information Practices
- Reasonable Expectations of Privacy

# Key Findings and Recommendations

- The meaning of privacy is highly contextual.
- Privacy is not an absolute good in itself and tradeoffs against other desirable societal values or goods are sometimes inevitable.
- Privacy is an important value to be maintained and protected since the loss of privacy often results in significant tangible and intangible harm to individuals and to groups.
- Many societal institutions find value in the exploitation of personal information and thus seek information from individuals. This leads to pressures for repurposing for information already collected.
- Privacy is most important to people when they believe the entity receiving their personal information is not trustworthy and that they may be harmed by sharing that information.

# Key Findings and Recommendations

- Privacy debates often combine policy and technology issues. We must insure that experts in these fields talk, listen, and learn from each other in these debates.
- Some debates use privacy as a screen for other issues. For example, privacy of medical information is often discussed in contexts where the real contention is access to medical insurance.
- Changes in the technology of information and the context in which privacy is discussed make many attempts to extend previous principles concerning privacy and technology difficult, misleading, or both.
- Insuring privacy incurs real costs to researchers, businesses, governments, and society. We need to be aware of these costs and balance them against the values of privacy that we are trying to maintain.

# Principles for Public Debate about Privacy

- Avoid demonization. Most threats to privacy do not come from fundamentally bad people with bad intentions. Demonization tends to make compromise and thoughtful deliberation difficult.
- Respect the complexity inherent in the problem. Privacy is a complicated issue and numerous related social and technical factors change over time.
  - Solutions to identified privacy problems are more likely to be successful if they can begin with modest and simple steps that provide feedback to guide and shape further actions.
- Be aware of long-term costs and risks.
  - Costly to retrofit privacy features into a system
  - Such fixes are often necessary when inadvertent violations of privacy occur that might have been prevented if those features had been available in the first place.
  - Ensure support for technological enforcement of privacy policies in a system's initial design.

# Recommendations for Organizations

- **Take both technical and administrative measures to ensure their enforcement**
- **Test whether stated privacy policies are being fully implemented**
- **Produce privacy impact assessments when they are appropriate**
- **Establish a mechanism for recourse when behavior and policy do not match**
- **Establish institutional advocate for privacy**

# Recommendations for policy makers

- **If policy choices require that individuals shoulder the burden of protecting their own privacy, law and regulation should support the individual in doing so.**
- **The U.S. government should undertake a broad systematic review of national privacy laws and regulations.**
- **Government policy makers should respect the spirit of existing privacy-related law.**

# Recommendations for policy makers (continued)

- Extend principles of fair information practice as far as reasonably feasible to apply to private sector organizations that collect and use personal information.
- Establish guidelines for informing individuals that repurposing of information might occur, and also for the nature of such repurposing and what factors would be taken into account in making any such decision.
- Implement FIP principle of choice and consent so that individual choices and consent are genuinely informed and so that its implementation accounts fairly for demonstrated human tendencies to accept without change choices made by default.
- Subject government use of data brokers etc to special Congressional attention and oversight.

# Recommendations for policy makers (continued)

- **Establish at different levels of government formal mechanisms for the institutional advocacy of privacy**
- **Establish a national privacy commissioner or standing privacy commission to provide ongoing and periodic assessments of privacy developments.**
- **Ensure availability of appropriate individual recourse for recognized violations of privacy.**

# Privacy in the Information Age

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