# Good Security and Privacy Things

Steven M. Bellovin <a href="http://www.cs.columbia.edu/~smb">http://www.cs.columbia.edu/~smb</a>



#### We Know the Bad Side

- We know bad things happen on the Internet (I caught my first hackers around 1971)
- We know there are lots of ways we lose privacy
- But -- the Internet offers ways options to improve privacy and security

A T-shirt for sale in one small US town has a caption that reads: "Small Town (def) a place where you don't have to use your turn signals because everyone knows where you are going."

Carl Ellison et al, 1998

## Privacy

- Access to information
  - Not easily available in small towns?
- Private purchasing
  - It's harder to hide in the physical world
  - Ubiquitous cameras and license plate readers make that worse

## Anonymity and Pseudonymity

- Screen names
- Multiple personnas
- Onion routing

## Free Speech

- The freedom to speak anonymously or pseudonymously
- The ability to speak in a different community
- Freedom of association
- Censoring the Internet is hard

## Information Security

- It's much easier to encrypt files than pieces of paper
- It's much easier to create remote backups of vital data
- It's much easier to protect a file against tampering

## Physical Security

- Home monitoring cameras
- Remote control of lights and appliances -- make a vacant house seem occupied
- The primary use of surveillance cameras is sometimes beneficial, even if only to solve a crime rather than deter it

#### But...

- Mandatory registration laws
- Court orders to unmask pseudonyms
- Data retention laws
- Hackers make home cameras risky
- Increasing use of Internet tracking technology
- Do the threats and dangers outweigh the good?