Human subjects research
Institutional Review Board

• Reviews human subjects research to make sure it is ethical and human subjects are protected

• Takes time and lots of paperwork

• Before submitting paperwork to IRB, you must complete human subjects training

• [http://www.cmu.edu/research-compliance/human-subject-research/](http://www.cmu.edu/research-compliance/human-subject-research/)
IRB approval

- Research involving human subjects requires IRB approval
- Surveys are exempt, but you must ask IRB for exemption
- Exempt and low-risk IRB approval usually happens within 2 weeks
- High risk usually takes about a month, but may be longer
- Whenever possible, design study so participants sign informed consent form up front
  - You will have to convince IRB that there is a good reason not to
- Submit your IRB form as early as possible
  - You can submit an amendment later
Ethical considerations

• Sometimes tests can be distressing
  – users have left in tears

• You have a responsibility to alleviate
  – make voluntary with informed consent
  – avoid pressure to participate
  – let them know they can stop at any time
  – stress that you are testing the system, not them
  – make collected data as anonymous as possible
Privacy attitudes
Consumer surveys

• Westin/Harris surveys
  – Privacy fundamentalist, pragmatist, unconcerned (marginally concerned)

• TRUSTe surveys

• Academic research

• Does it matter what consumers think?
Privacy concerns seem inconsistent with behavior

- People say they want privacy, but don’t always take steps to protect it
- Many possible explanations
  - They don’t really care that much about privacy
  - They prefer immediate gratification to privacy protections that they won’t benefit from until later
  - They don’t understand the privacy implications of their behavior
  - The cost of privacy protection (including figuring out how to protect their privacy) is too high
Smart, Useful, Scary, Creepy: Perceptions of Behavioral Advertising

Blase Ur, Pedro G. Leon, Lorrie Faith Cranor, Richard Shay, and Yang Wang
SOUPS 2012
Research goals

• Gain insight into what users think about online behavioral advertising (OBA)
• Identify how participants’ mental models correspond with notice and choice mechanisms
Methodology

• 48 participants

• Recruited from the Pittsburgh, PA region
  – Non-technologists
  – Interested in testing privacy tools

• Combination semi-structured interview and usability study

• Part way through interview showed WSJ video to inform participants about OBA
Participants unaware of OBA

• Participants believed ads were tailored, but only based on context or on a single site
Participants unaware of OBA

• Participants believed ads were tailored, but only based on context or on a single site

• Thought it was only hypothetical
  – “I guess if they were monitoring what I did on the Internet…But I’d hope they weren’t…”
Didn’t recognize OBA icon

• Not sure what would happen if they clicked on icon
  – Express interest in product
  – Purchase your own ads
  – Go to product’s website
  – See related ads
Mixed opinion about OBA

• Recognized benefits
  – Advertisers can reach consumers interested in their products
  – Consumers find things they’re interested in and don’t get ads for things they’re not interested in

• Concerned about privacy
Beliefs about OBA

- Advertisers collect information including name, financial information, and address
- This information, along with browsing history, is stored in cookies
Participants’ impressions: available choice mechanisms

- Deleting cookies
- No options
- Antivirus software suites
- Web browser
Familiarity and trust are important

Familiar brands judged based on non-advertising activities

Unfamiliar brands not trusted
Takeaways

• Opinions about OBA mixed – both useful and creepy
• Participants did not understand OBA technologies
• Some of the worst fears based on misconceptions
• Participants did not know how to effectively exercise choice
Economics of privacy
Transactions

• Buyer and seller example [Varian 1996]
  – Buyers want sellers to know what they want so they can reduce their search costs
  – Buyers do not want sellers to know their maximum willingness to pay
  – Buyers don’t want to be annoyed by sellers and don’t want to spend time hearing about products they don’t want (excess search costs)
  – Sellers don’t want to waste time pitching products to people who don’t want them
Externality

• The actions of a mailing list buyer impose costs on individuals on that list, but the seller of the list ignores those costs
  – Costs could be mitigated through choice
Incentives

• Sometimes it is not to buyer’s advantage to reveal personal characteristics (health insurance example)
Contracts and markets for info

• What if we had property rights in information about ourselves?
  – We could contract to allow information to be used for only specified purposes
  – We could buy and sell these property rights
    • National Information Market [Laudon 1996]
  – What about transaction costs?
Public interest in personal information

- Public records
  - Court records
  - Tax assessments
  - Salaries of public officials

- What happens when information goes online and transaction costs approach zero?