

Privacy Surveys

Week 12 - April 6, 8

Current events

■ Gmail

- ★ Good, bad, or ugly... what do you think?
- ★ Ads are customized based on content of email, but no human ever reads the email ... are privacy concerns satisfied?

GPS

- Clarifying a misconception...
- GPS is a one-way system
 - ★ GPS receivers listen for radio beacons and triangulate their position
 - ★ If receivers are to report their location back they must use another system, for example cellular phone network
- GPS does not work indoors

Privacy Surveys - Questions to Ask

- Who conducted the survey and why?
- What population was sampled and how?
 - ★ What is this sample representative of?
- When was this study done?
 - ★ Are there more recent studies?
 - ★ Are results still applicable today?
- How was this study done?
- How are the results being spun?

The role of surveys in public policy

- Survey respondents may be
 - ★ Misinformed
 - ★ Confused
 - ★ Not randomly sampled
 - ★ Non-expert
 - ★ Unaware of alternatives, impacts, etc...
 - ★ Biased

- But then again, so might other sources of information that feed into policy process

Beyond Concern

- Study by Cranor, Ackerman, and Reagle, 1999
 - ★ <http://www.research.att.com/projects/privacystudy/>
- Motivation: Design better P3P user agent
 - ★ What data elements are users most sensitive about?
 - ★ What aspects of privacy policies do users care most about?
 - ★ Would users like data to be transferred automatically?

Privacy surveys

- Many surveys show high levels of concern about privacy, BUT

“Despite this wide range of interests in privacy as a topic, we have little idea of the ways in which people in their ordinary lives conceive of privacy and their reactions to the collection and use of personal information” (Hine and Eve 1998).

Design for a new survey

- How people respond to situations in which personal info is collected online
- Sensitivity to particular privacy practices
- General attitudes and demographics

Methodology & sample

- Invitations to complete a Web-based survey emailed to 1,500 DRI Family Panel members
- 523 surveys completed - 381 US respondents
- Our US sample differed from nationally representative sample:
 - ★ More educated
 - ★ More Internet experience
 - ★ More concerned about Internet privacy issues

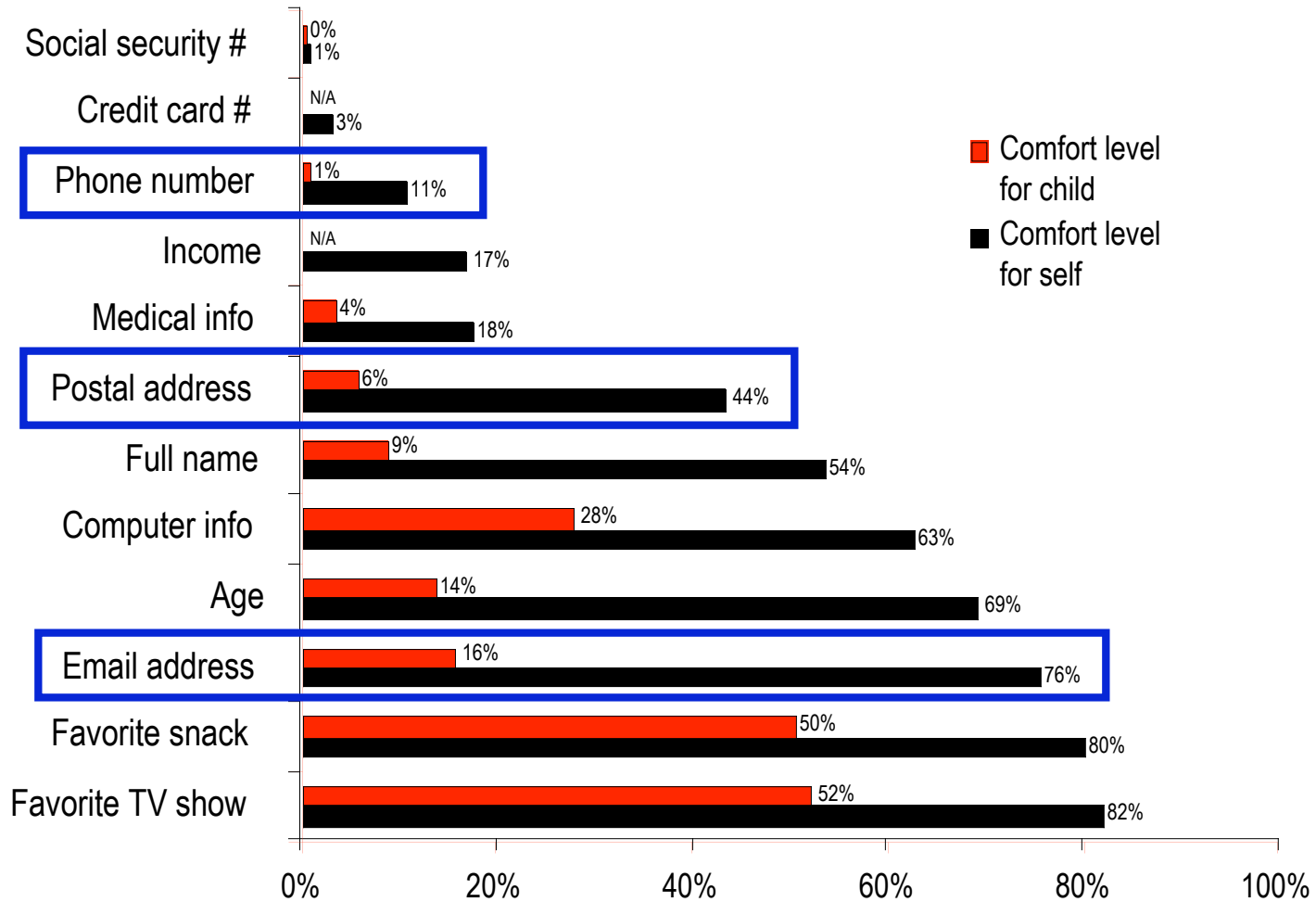
Clusters

- Privacy fundamentalists (17%)
 - ★ extremely concerned about any use of data
- Pragmatic majority (56%)
 - ★ often had specific concerns and tactics for addressing them
- Marginally concerned (27%)
 - ★ willing to provide data under most circumstances, but had mild general concern and some specific concerns

Users prefer to be anonymous

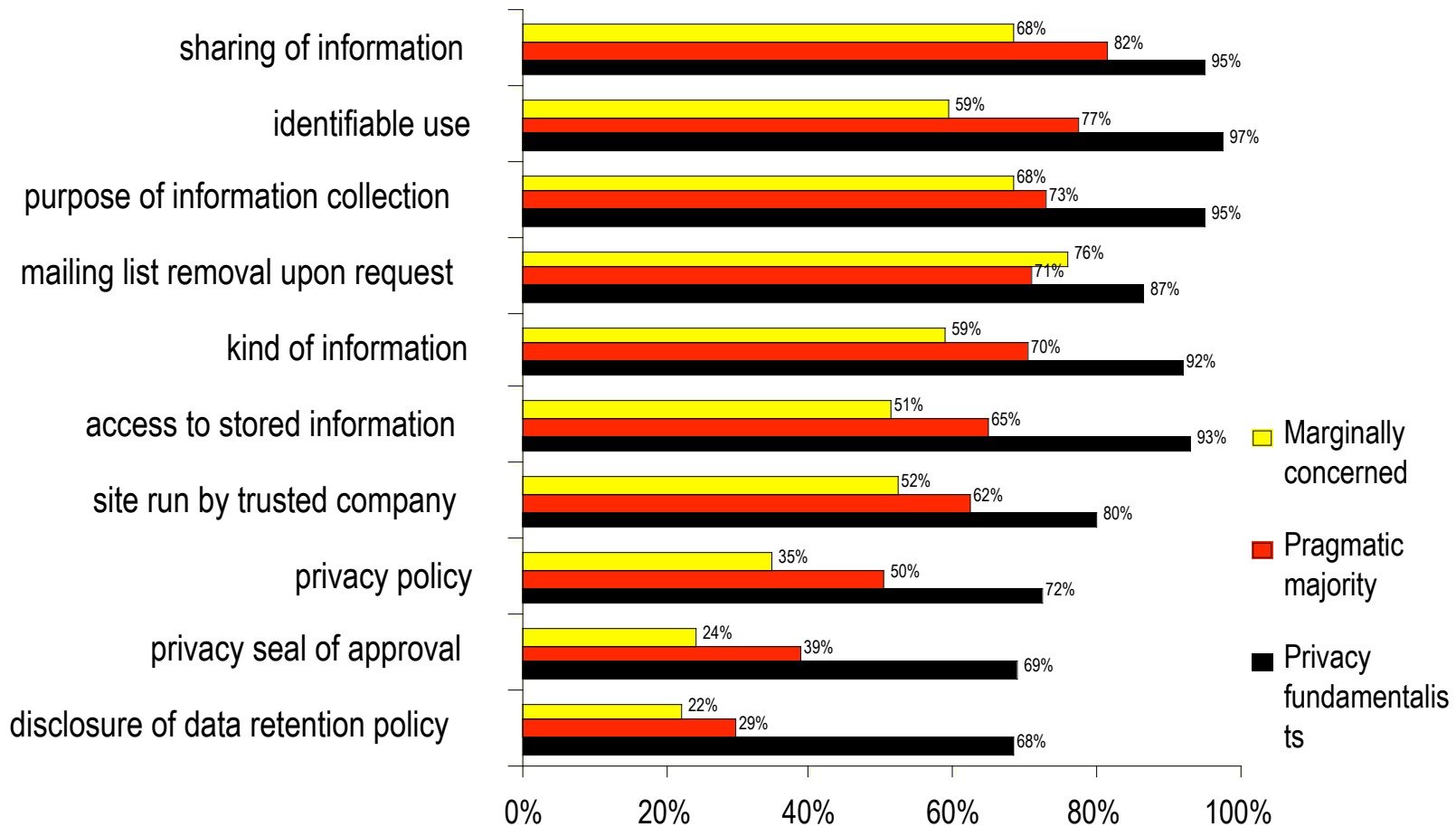
- In two scenarios, respondents were more likely to provide information when they were not identified

Data sensitivity varies



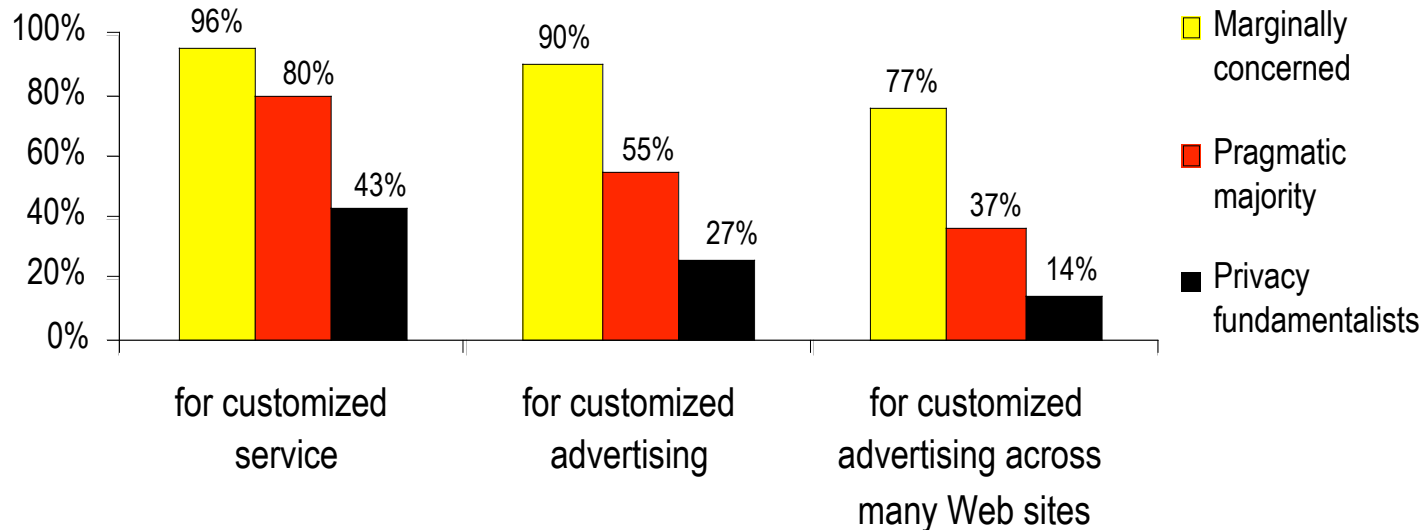
Respondents who are always or usually comfortable providing information

Many factors important



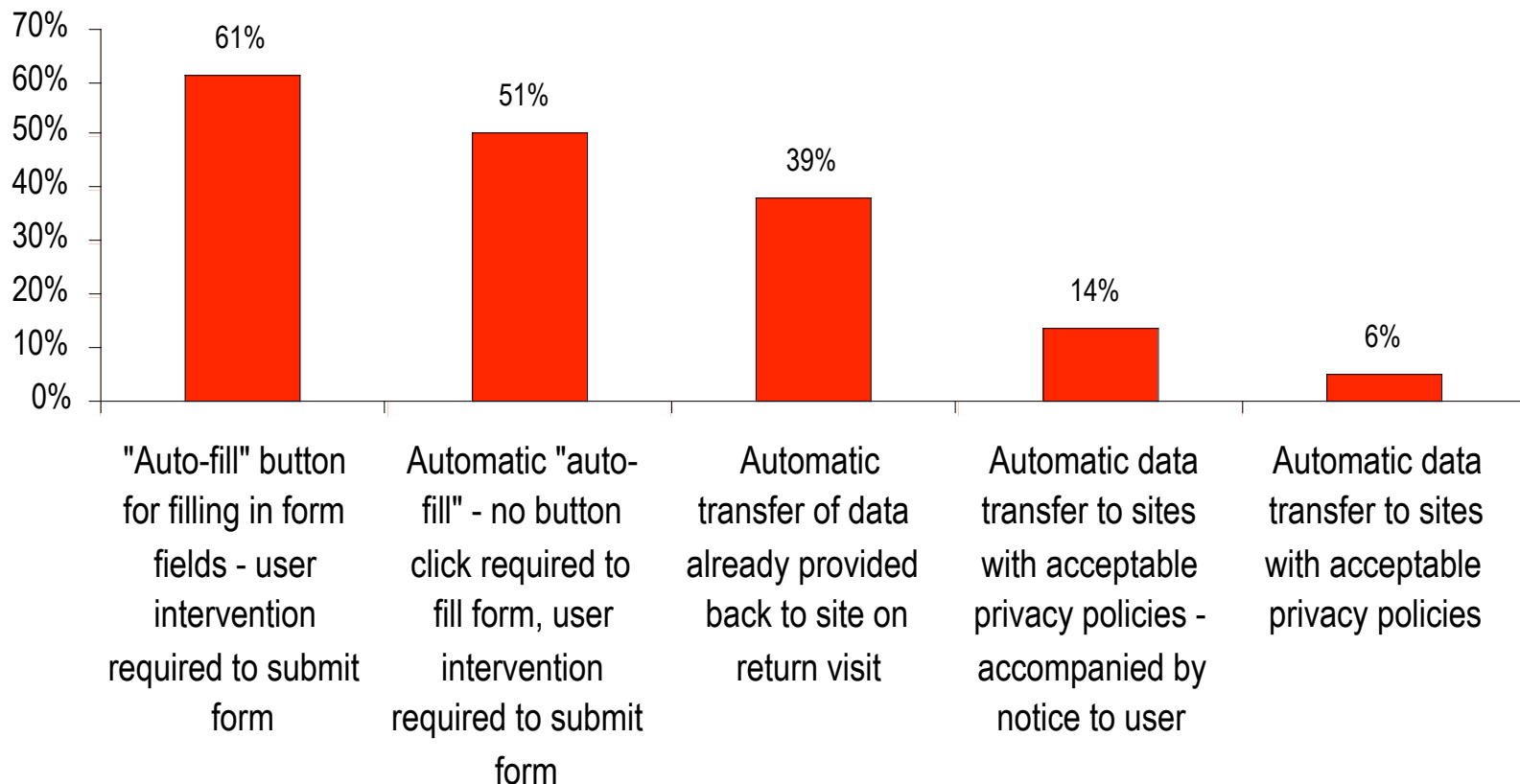
Respondents who consider factor very important

Acceptance of persistent IDs



Respondents who would probably or definitely agree to a site assigning persistent identifier

Dislike of auto data transfer



Respondents who would use proposed browser features

Technical implications

- Extremely simplified interfaces might work for some users but most will need more sophisticated interfaces
- Automatic data transfer unlikely to be of interest
- Need for different views of information (treat phone number different from postal address)

Policy & business implications

- Need flexibility
- Need trust-enhancement approach
- Expressed concerns can help policy-makers prioritize
- BUT don't make policy based solely on survey results

Privacy Bird User Survey

- Cranor, Guduru, Arjula 2002
 - ★ <http://lorrie.cranor.org/pubs/wpes02/>
- About 20,000 downloads in first six months of public beta trial
- Users asked whether they were willing to participate in survey when they downloaded software
- We randomly selected 2000 email addresses from those willing to participate in surveys and sent invitation to fill out online 35-question questionnaire
- 17% response rate

Demographics and Internet use

- Compared to random sample surveys of Internet users, our sample was older, more predominantly male, better educated, and had more Internet experience
- Most of our respondents from English speaking countries
 - 70% from US, 14% from Australia, 6% from Canada
- US respondents had more Internet experience than other respondents and were more likely to have made purchases from web sites
- Are our skewed survey respondent demographics representative of Privacy Bird users?
- Are our demographics similar to demographics of users of other privacy software?

Attitudes about privacy

- 34% never heard of P3P (you don't have to know about P3P to use Privacy Bird!)
- 21% identified as "P3P experts"
- Most never or occasionally read privacy policies before installing Privacy Bird (similar to what other surveys found)
- Level of privacy concern similar to other studies
- Our respondents appear more knowledgeable and concerned about cookies than typical Internet users
- Our respondents are not very knowledgeable about third-party cookies - 18% never heard of them, 41% heard of them but don't really know what they are
- P3P experts more knowledgeable about third-party cookies and less concerned about cookies

General evaluation of Privacy Bird

- Beta had some installation and stability problems that showed up on only some systems
- Frequent criticism: too many yellow birds!
 - ★ In August 2002, E& Y reported 24% of to 100 domains visited by US Internet users were P3P enabled
- Average usefulness on 5 point scale (5=very useful)
 - ★ Today: 2.9
 - ★ If most web sites P3P-enabled: 4.0
 - ★ If Privacy Bird could block cookies at sites with red bird: 4.1
- Women and non-US respondents found Privacy Bird most useful and more likely to recommend to a friend
- Average ease-of-use on 5 point scale (5=very easy)
 - ★ Installation: 4.6
 - ★ Changing privacy settings: 3.9
 - ★ Understanding policy summary: 3.3

Policy summary

- Amount of information in policy summary
 - ★ Right amount: 64%
 - ★ Too much: 15%
 - ★ Not enough: 20%
- No specific suggestions about what additional information to include
- How often did you look at policy summary?
 - ★ Never: 15%
 - ★ Once or twice: 34%
 - ★ Several times: 36%
 - ★ Ten or more times: 15%
- Focus of future work should be on wording of policy summary to make it easier to understand

Privacy settings

- How often did you change your privacy settings?
 - ★ Never: 25%
 - ★ Once or twice: 52%
 - ★ Several times: 21%
 - ★ Ten or more times: 2%
- P3P experts changed their settings more frequently
- A few comments that people did not fully understand what all the choices mean

Icon and sounds

■ What sound setting did you use?

- ★ Play sounds at all web sites: 19%
- ★ Play sounds with certain birds: 37%
- ★ No sounds: 45%

“Oh, how we love the squawking red crow”

“I was driven almost to a state of collapse, I used to jump when I heard the same bird call in my yard”

■ Some complaints about location of bird in title bar

Impact on online behavior

- 88% of respondents indicated some change in online behavior as a result of using Privacy Bird

- ★ Fill out fewer online forms: 37%

- ★ Take advantage of opt-outs: 37%

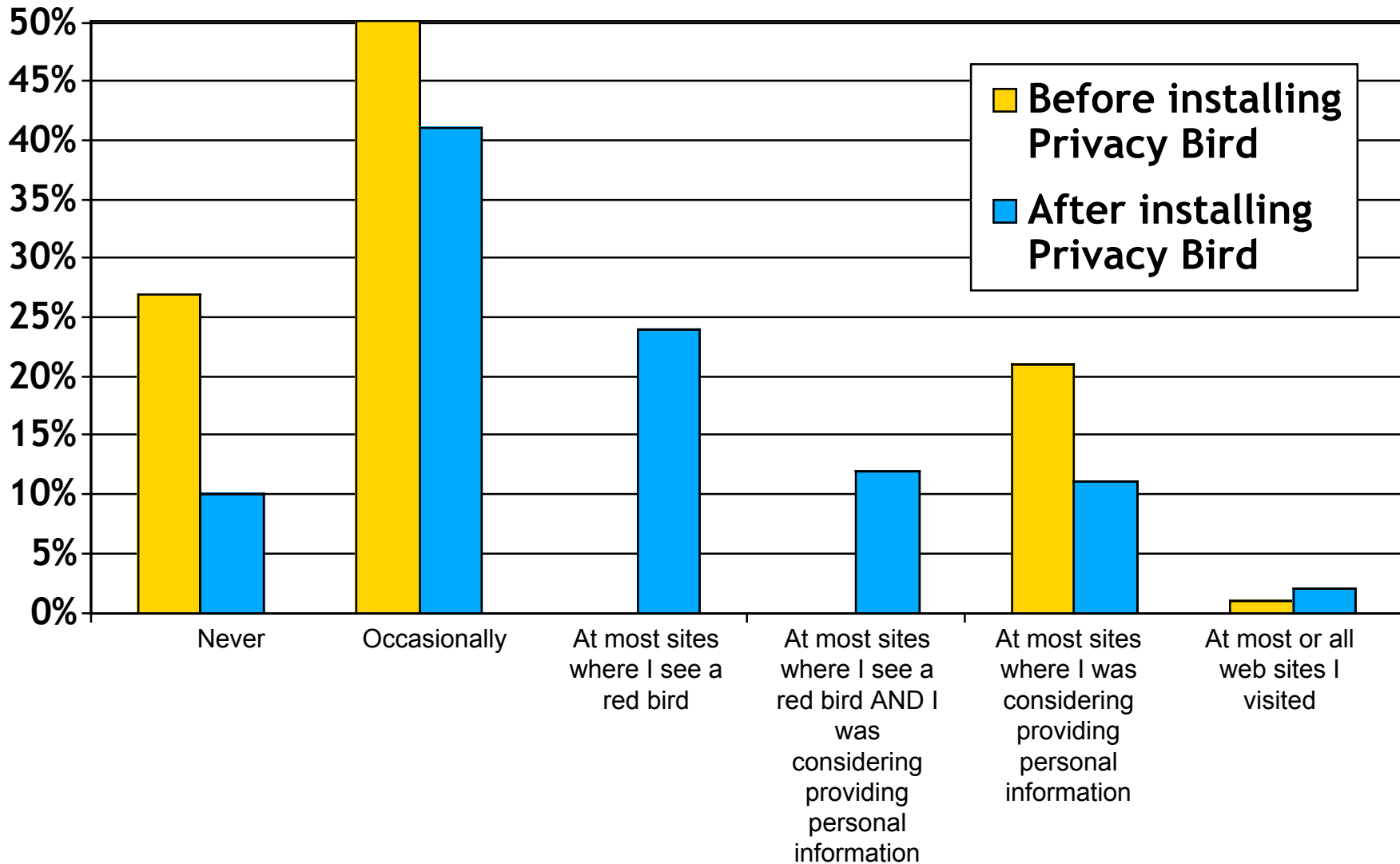
- ★ Stopped visiting some web sites: 29%

- ★ Comparing privacy policies at similar sites and frequenting sites with better policies: 18%

“Basically, I use Privacy Bird like a warning light. Whenever it’s red I treat the website as hostile and am extra careful about the information I provide and activities I perform there”

“I told one mutual fund web site about Privacy Bird’s findings, and they improved their pages because of it!”

Respondents who read privacy policies



Impact on online purchasing

- If you could find out before making an online purchase which of the websites that had the item you wanted had the best privacy policy, would you be likely to purchase the item from the site with the best privacy policy?
 - ★ Almost always purchase from site with best privacy policy: 33%
 - ★ Probably purchase from site with best privacy policy as long as price and services similar to other sites: 54%
 - ★ Always purchase from site with best price: 6%
 - ★ Do not plan to make online purchases: 7%

Discussion

- More work needed to study how people use privacy software and determine how to make privacy concepts accessible to end users
- Women and people outside the US like Privacy Bird best, but they represent minority of our users
- Policy summary is aspect of UI most in need of improvement - providing short and long views may help
- Privacy software has potential as educational tool
- Usefulness of P3P software limited until more sites adopt P3P
- Search engines and comparison shopping services that use privacy policy as a criteria would be useful

CMU Privacy Policy Drafts

- <http://lorrie.cranor.org/courses/sp04/policy-drafts.html>

Your project presentations

- April 29, May 7
 - ★ Everyone is expected to attend both days
- 8-10 minute presentation, followed by discussion
- Present an overview of your project
 - ★ Use visual aids
 - ★ Organize your presentation
 - ★ Practice
 - ★ Be prepared to answer questions
 - ★ You will be graded on your presentation skills!
- Your project reports are due April 29 (regardless of which day you present)

Sign up

■ April 29

- ★ 1.
- ★ 2.
- ★ 3. Christina
- ★ 4.

■ May 7

- ★ 1. Candice
- ★ 2. Bella
- ★ 3. Ben
- ★ 4. Indrani
- ★ 5.
- ★ 6.
- ★ 7.