Privacy notice and choice

Lorrie Faith Cranor September 29, 2015

8-533 / 8-733 / 19-608 / 95-818: Privacy Policy, Law, and Technology Carnegie Mellon University CyLab

institute for SOFTWARE RESEARCH

Engineering & Public Policy



Today you will learn

- How notice and choice has worked out in practice
- Ways to empirically test claims about the effectiveness of tools for consumers

But first... some notes on homework

- Optional reading summaries should be taken from optional reading assigned AFTER the last homework assignment was due, through the due date of the current assignment
- Highlights should show some insight or reflection on your part, not just a trivial observation

Summary and highlight example

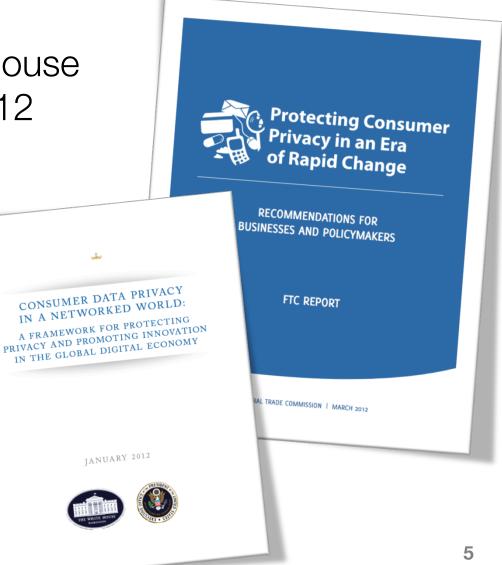
Question 1:

Brandimarte – Summary: The experiments described in this paper tested personal privacy attitudes in relation to the amount of control over the personal information being revealed. By varying control over information release in three separate studies, the experiments revealed a paradoxical effect such that increased control over the release of information increased willingness to share sensitive information, independent of how accessible the information is to others. This result raises the concern that technologies that give users greater control over the release of their information may actually expose them to greater risk if they lead to users being more willing to disclose information [1].

Brandimarte – Highlight: It is very interesting to me that perceived control over the dissemination of personal information has a greater effect on people's willingness to disclose information than the objective risk of the disclosure. Though all three experiments supported this conclusion, I think it was best reflected in Study 1, where students who were told their profiles would definitely be published online answered intrusive questions at a greater rate than students who were told that 50% of the profiles would be published at random. Even though the first set of students had a 100% chance of disclosure and the second set 50%, the perceived lack of control in the publication of the information seems to have had an influence on the privacy attitudes of those students [1].

US government privacy reports

- U.S. FTC and White House reports released in 2012
- U.S. Department of Commerce multi-stakeholder process to develop enforceable codes of conduct



Privacy self regulation



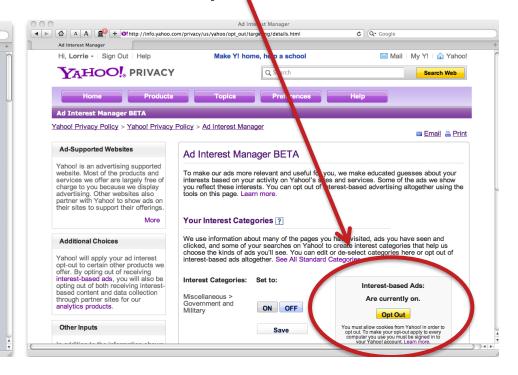
Notice and choice

Protect privacy by giving people control over their information

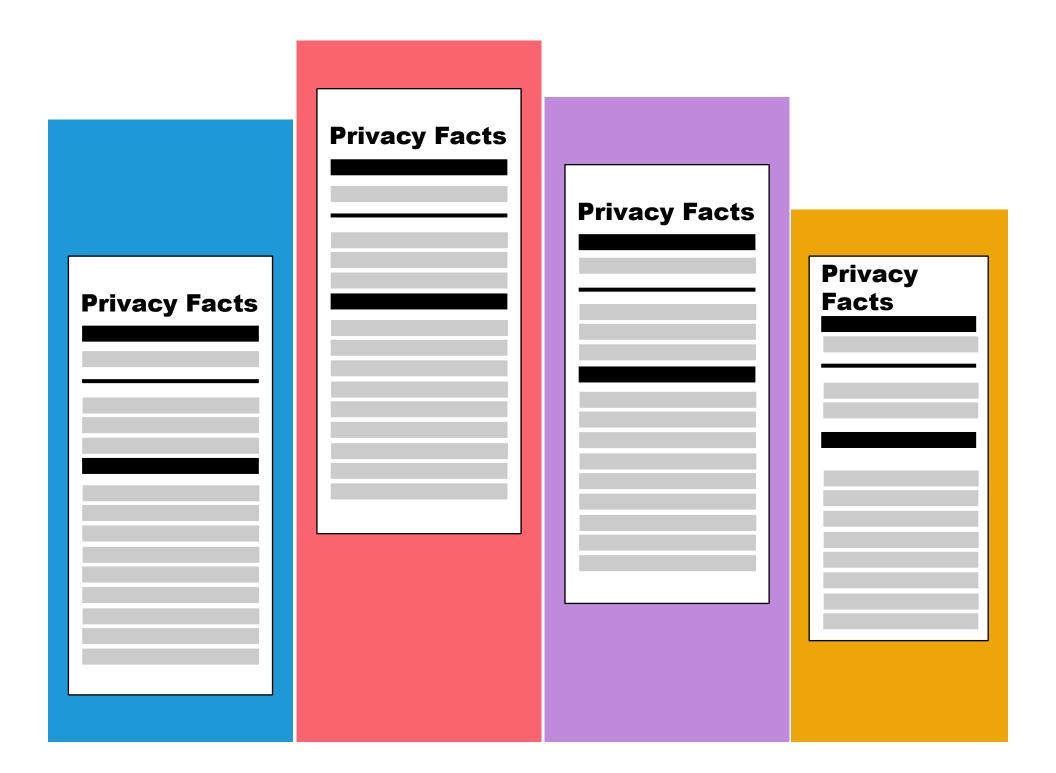
Notice about data collection and use

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Choices about allowing their data to be collected and used in that way



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"In theory there is no difference between theory and practice. In practice there is."

-Yogi Berra

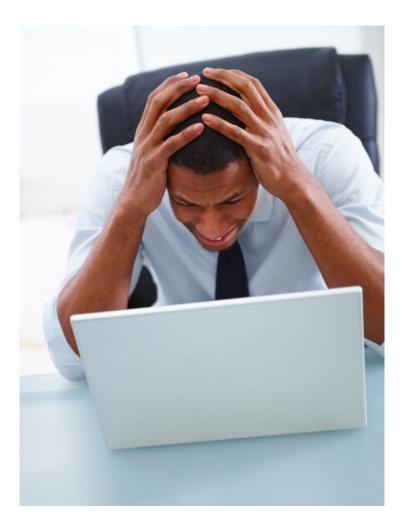
How effective is privacy notice and choice in practice?



Nobody wants to read privacy policies

"the notice-and-choice model, as implemented, has led to long, incomprehensible privacy policies that consumers typically do not read, let alone understand"

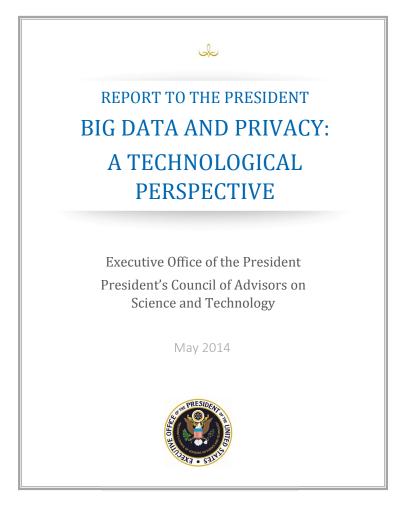
 Protecting Consumer Privacy in an Era of Rapid Change. Preliminary FTC Staff Report. December 2010.



Nobody actually reads policies

"Only in some fantasy world do users actually read these notices and understand their implications before clicking to indicate their consent."

 Big Data and Privacy: A Technological Perspective. PCAST 2014.



Cost of reading privacy policies

- What would happen if everyone read the privacy policy for each site they visited once each month?
- Time = 244/hours year
- Cost = \$3,534/year
- National opportunity cost for time to read policies: \$781 billion



A. McDonald and L. Cranor. The Cost of Reading Privacy Policies. I/S: A Journal of Law and Policy for the Information Society. 2008 Privacy Year in Review Issue. <u>http://lorrie.cranor.org/pubs/readingPolicyCost-authorDraft.pdf</u>

PPrivacy lcons

Privacy http://www.azarask.in/blog/post/privacy-icons/

2010



Your Data is Used Only for the Intended Use



Your data is never bartered or sold.



Your Data May be Used for Purposes You Do Not Intend



Your data may be bartered or sold.



Your data is never given to advertisers.



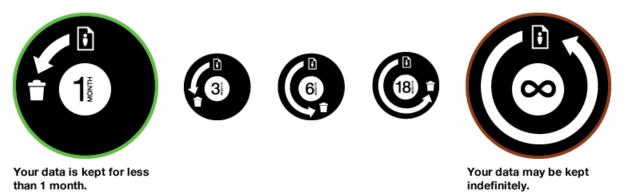
Site gives your data to advertisers.



Data is given to law enforcement only when legal process is followed.



Data may be given to law enforcement even when legal process is not followed.



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Smartphone App Privacy Icon Study Conducted for LifeLock, Inc. by Cranor et al., 2013

Towards a privacy "nutrition label"

- Standardized format
 - People learn where to find answers
 - Facilitates policy comparisons
- Standardized language
 - People learn terminology
- Brief
 - People find info quickly
- Linked to extended view
 - Get more details if needed

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Our vendors follow Good Manufacturing Practices to segregate ingredients to avoid cross contact with allergens. Made on shared equipment with milk, tree nuts & soy. Facility processes eggs & peanuts.

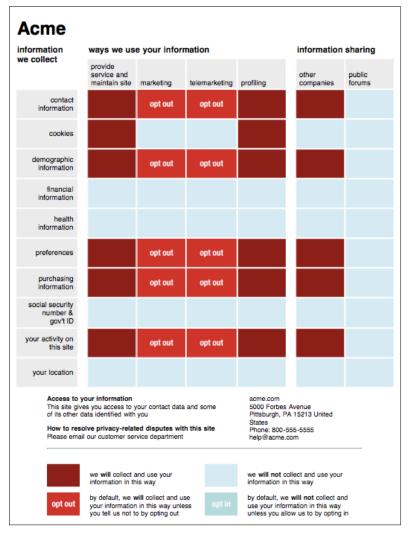
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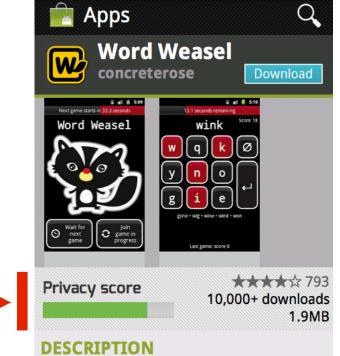


Iterative design process

- Series of studies
 - Focus groups
 - Lab studies
 - Online studies
- Metrics
 - Reading-comprehension (accuracy)
 - Time to find information
 - Ease of policy comparison
 - Subjective opinions, ease, fun, trust
- P.G. Kelley, J. Bresee, L.F. Cranor, and R.W. Reeder. A "Nutrition Label" for Privacy. SOUPS 2009.
- P.G. Kelley, L.J. Cesca, J. Bresee, and L.F. Cranor. Standardizing Privacy Notices: An Online Study of the Nutrition Label Approach. CHI2010.

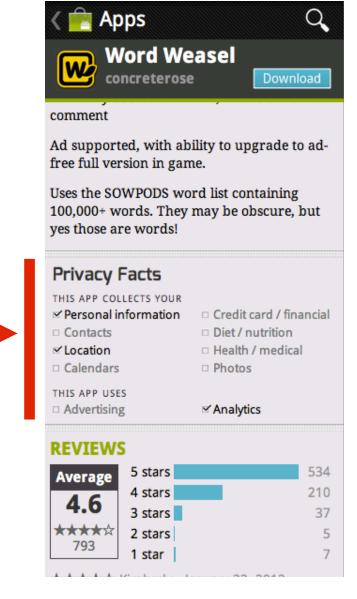


Privacy label for Android



Like word games? Like weasels? This is the game for you. Word Weasel is a fast word game where you find as many words as you can from 9 letters in 50 seconds. Compete with everyone else playing at the same time, a new game starts every minute!

"The most fun you can have on your own with 9 random letters. Brilliantly simple, devilishly addictive." --Kim, Android Market comment

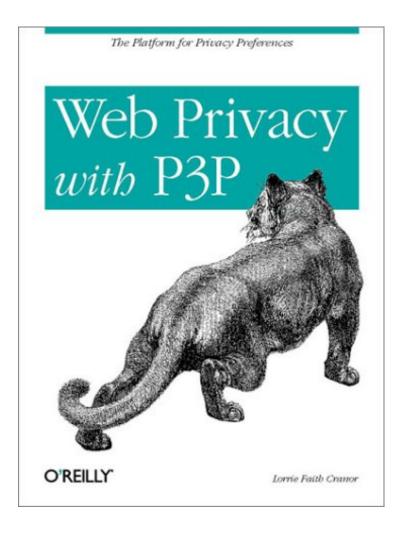


Role play studies

- Task for participants in lab or online
 - Select apps for friend with new Android phone
 - Choose from 2 similar apps w/ different permission requests in each of 6 categories
 - Click on app name to visit download screens
- Post-task questionnaire
- Participants who saw Privacy Facts more likely to select apps that requested fewer permissions
 - Other factors such as brand and rating reduce effect

P.G. Kelley, L.F. Cranor, and N. Sadeh. Privacy as part of the app decision-making process. CHI 2013.

Let your computer read for you



- Platform for Privacy Preferences (P3P)
- W3C specification for XML privacy policies
 - Proposed 1996
 - Adopted 2002
- Optional P3P compact policy HTTP headers to accompany cookies
- Lacks incentives for adoption

P3P in Internet Explorer

- P3P implemented in IE
 6, 7, 8, 9, 10 ...
- Default privacy setting
 - Rejects third-party cookies without a CP
 - Rejects unsatisfactory third-party cookies

Internet Options
General Security Privacy Content Connections Programs Advanced
Settings Select a setting for the Internet zone.
Medium - - Blocks third-party cookies that do not have a compact privacy policy - - Blocks third-party cookies that save information that can be used to contact you without your explicit consent - - Restricts first-party cookies that save information that can be used to contact you without your implicit consent - - - Restricts first-party cookies that save information that can be used to contact you without your implicit consent - - - - - - - - - - - - - - -
Pop-up Blocker Prevent most pop-up windows from appearing. Turn on Pop-up <u>B</u> locker
InPrivate
OK Cancel Apply

No P3P syntax checking in IE

- IE accepts P3P policies containing bogus tokens or missing required tokens
- Example of valid compact policy:
 CAO DSP COR CURa ADMa DEVa OUR IND PHY ONL UNI COM NAV INT DEM PRE
- Examples of invalid policies accepted by IE: атагоп.com амгл



Facebook does not have a P3P policy. Learn why here: http://fb.me/p3p

P. Leon, L. Cranor, A. McDonald, and R. McGuire. Token Attempt: The Misrepresentation of Website Privacy Policies through the Misuse of P3P Compact Policy Tokens. WPES 2010.

IEBlog	Windows Int	ternet Explorer Engineering Team Blog [
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Published Monday, February 20, 2012 1:31 PM	🧭 152 comments	Português (Brasil)		
When the IE team heard that Google had bypassed user	한국어			
we asked ourselves a simple question: is Google circum		日本語		
preferences of Internet Explorer users too? We've discov	• • •	简体中文		
Google is employing similar methods to get around the	default privacy	Burgerung		

Google

Microsoft uses a "self-declaration" protocol (known as "P3P") dating from 2002 It is well known – including by Microsoft – that it is impractical to comply with Microsoft's request while providing modern web functionality.

Do not track

- Proposed W3C standard
- User checks a box
- Browser sends "do not track" header to website
- Website stops "tracking"
- W3C working group trying to define what that means

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Lots of tools to stop tracking

- Browser privacy settings
 - Cookie blocking
 - P3P
 - Tracking Protection Lists
 - Do Not Track
- Browser add-ons
- Opt-out cookies



 Digital Advertising Alliance (DAA) AdChoices icon and associated opt-out pages

Are any of these tools effective?

- Do the tools work?
 - Does technology do what it is supposed to do?
 - Do companies respect user choices?
- Can consumers use them?
 - Do users understand tracking?
 - Do users understand what tools do?
 - Can users make tools do what they want?

Why Johnny Can't Opt Out: A Usability Evaluation of Tools to Limit Online Behavioral Advertising

Pedro G. Leon, Blase Ur, Rebecca Balebako, Lorrie Faith Cranor, Richard Shay, and Yang Wang *CHI 2012*

Three types of tools tested



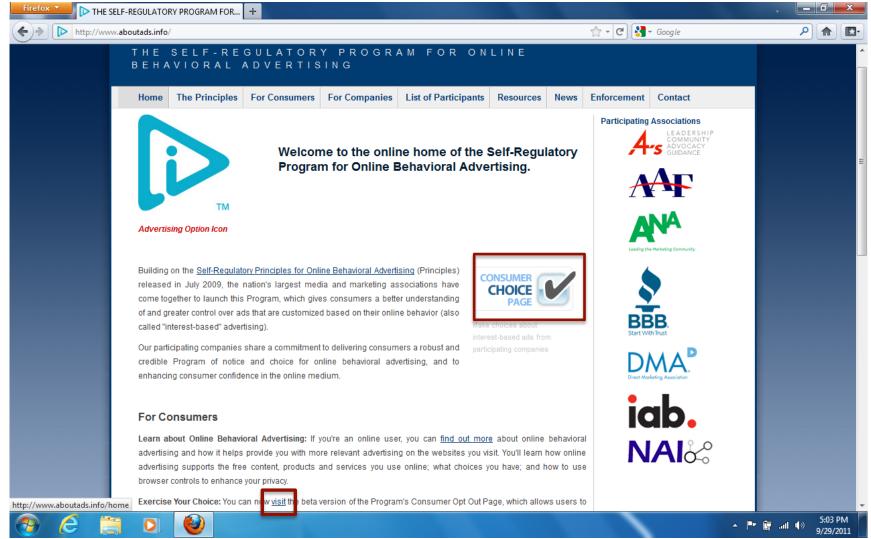
Methodology

- Part of previous interview study
- 45 participants evaluated 9 tools
 - Between subjects study
 - Random assignment, controlled for preferred web browser and operating system

Testing protocol

- Semi-structured interview
- Usability testing
 - Task 1: Learn about and install the tool
 - Task 2: Change tool settings
 - Task 3: Browsing scenarios
- Exit questionnaire

DAA website



Opting out can be challenging

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A A							

35

IE-TPL configuration interface

Manage Add-ons				-	×
View and manage your Interne	et Explorer add-ons				
Add-on Types	Name	Status	Address		
👸 Toolbars and Extensions	Your Personalized List	Enabled			
Search Providers					
Accelerators					
STracking Protection					
Get a Tracking Protection Lis	st online				
Learn more about Tracking Protection					Close

Takeaways

- Problematic defaults
- Poorly designed interfaces and jargon
- Feedback
- Misconceptions about opt-out tools
- Users unable to make meaningful decisions on a per-company basis

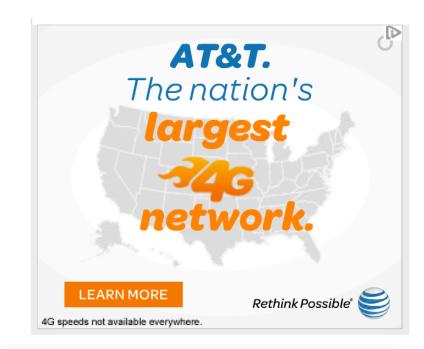
What Do Online Behavioral Advertising Disclosures Communicate to Users?

Pedro Giovanni Leon, Justin Cranshaw, Lorrie Faith Cranor, Jim Graves, Manoj Hastak, Blase Ur, and Guzi Xu. WPES 2012











The industry claims total success

"The DAA has revolutionized consumer education and choice by delivering a real-time, in-ad notice more than 10 billion times every day through the increasingly ubiquitous DAA Advertising Option Icon (also known as the 'Ad Choices' Icon)"



Peter Kosmala, Former Managing Director of The Digital Advertising Alliance. Yes, Johnny Can Benefit From Transparency and Control. November 3, 2011.

Objectives

- Evaluate the effectiveness of different OBA disclosures at communicating notice and choice about OBA
- Find ways to improve effectiveness of OBA disclosures

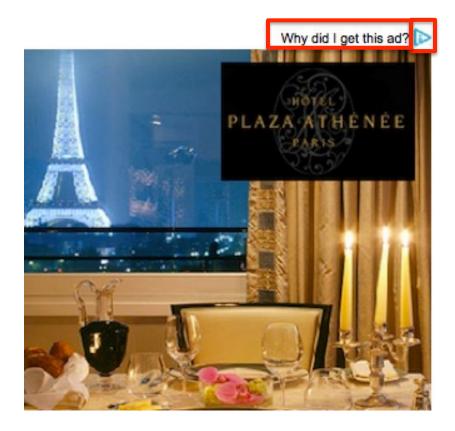
Methodology

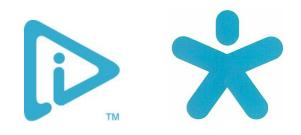
- Large scale between-subjects online study
 - 1,505 participants
 - Over 100 participants per treatment
- Participants recruited through Amazon Mechanical Turk
- Guided browsing scenario
- Online survey

First exposure to OBA disclosures



Second exposure to OBA disclosures





- Why did I get this ad?
- Interest based ads
- AdChoices
- Sponsor ads
- Learn about your ad choices
- Configure ad preferences
- 'No tagline'

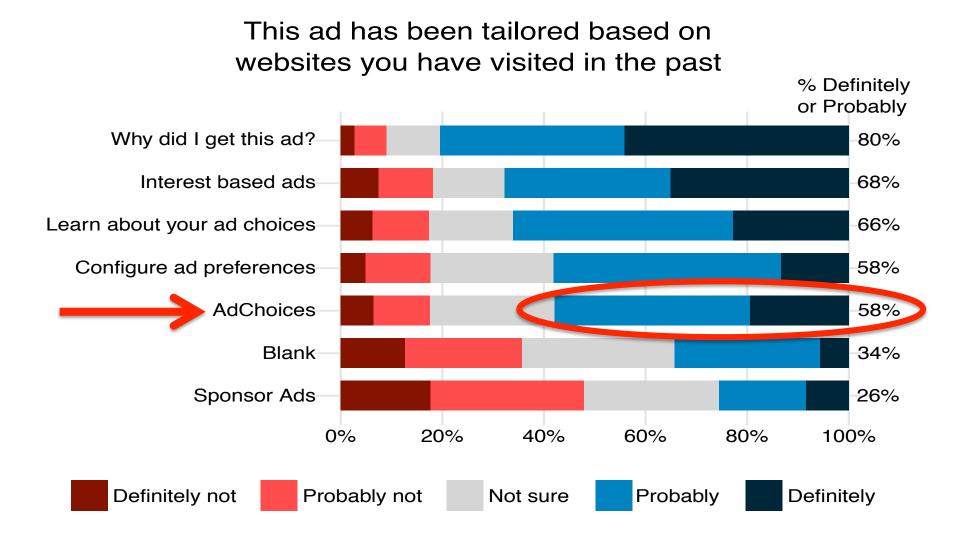
Exposure to landing pages



- AOL
- Yahoo!
- Microsoft
- Google
- Monster

Do icons and taglines suggest tailored ads?

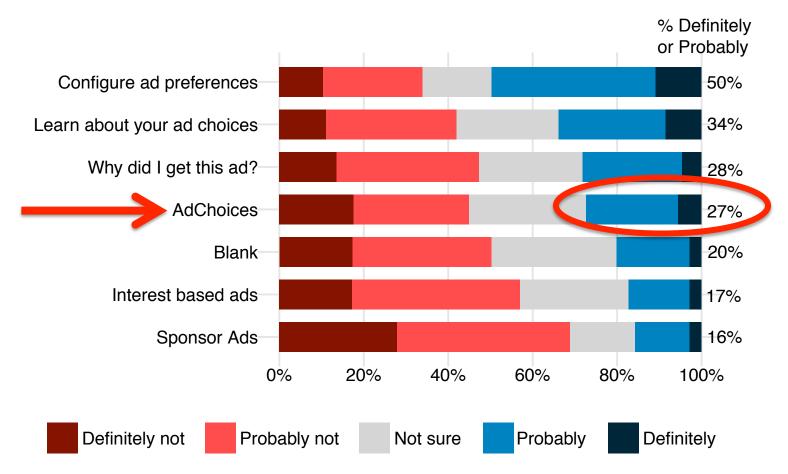
- To what extent, if any, does this combination of the symbol and phrase, placed on the top right corner of the above ad suggest the following?
 - This ad has been tailored based on websites you have visited in the past. [true]



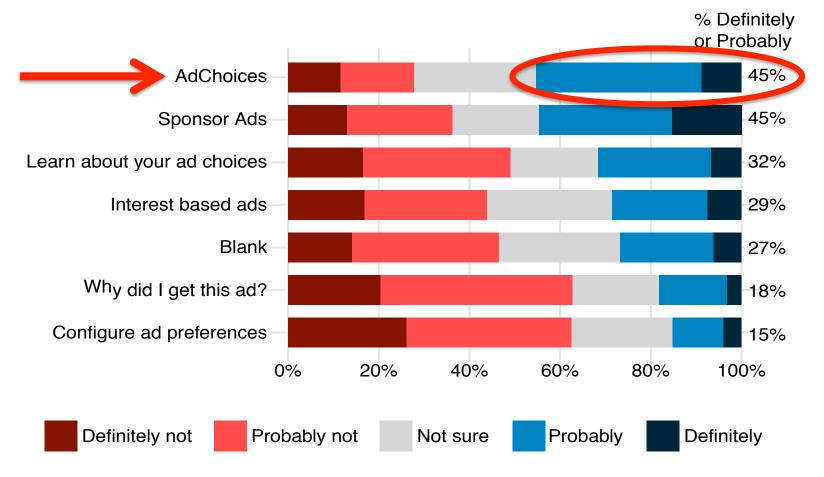
Willingness to click

- What do you think would happen if you click on that symbol or that phrase?
 - It will take you to a page where you can tell the advertising company that you do not want to receive tailored ads. [true]
 - More ads will pop up. [false]
 - It will take you to a page where you can buy advertisements on this website. [false]

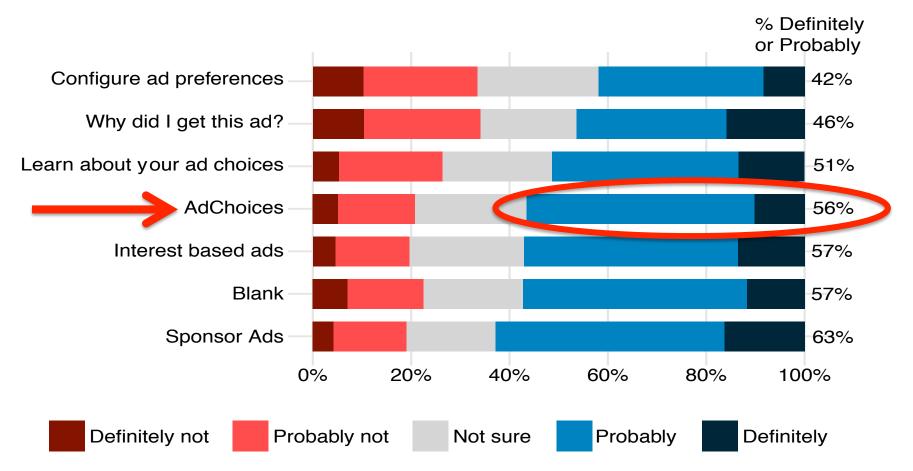
Will take you to a page where you can tell the advertising company that you do not want to receive tailored ads



Will take you to a page where you can buy advertisements on this website



More ads will pop up



Takeaways

- OBA icons and taglines are not noticed
- "AdChoices" was outperformed by other tagline treatments at communicating notice and choice about OBA
- Users are afraid to click on icon

How effective is privacy notice and choice in practice?

Notice and Choice	Effectiveness in
Mechanism	Practice
Privacy policies	_
Privacy nutrition labels	_
Privacy Facts for Android	
P3P	
	—
Do Not Track	_
Tools to opt-out of tracking	_
AdChoices icon	
	_
Model financial privacy notice	
	- 5

Notice and Choice Mechanism	Effectiveness in Practice
Privacy policies	Nobody reads
Privacy nutrition labels	Promising research, not used
Privacy Facts for Android	Promising research, not used
P3P	Used to circumvent browser privacy settings
Do Not Track	No agreement on what it means
Tools to opt-out of tracking	Difficult to use
AdChoices icon	Nobody knows what it means and people are afraid to click on it
Model financial privacy notice	Adopted by thousands of websites, could be more useful with directory

How to make notice and choice more effective

- Incentives for adoption
- Enforcement (legal and technical)
- Baseline requirements
- Standardized notice formats

- Machine-readable
 notice formats
 - Reduce ambiguity
 - Link to full disclosure
 - Comparison tools
 - More research

Are They Actually Any Different? Comparing Thousands of Financial Institutions' Privacy Practices

Lorrie Faith Cranor, Kelly Idouchi, Pedro Giovanni Leon, Manya Sleeper, Blase Ur, WEIS 2013

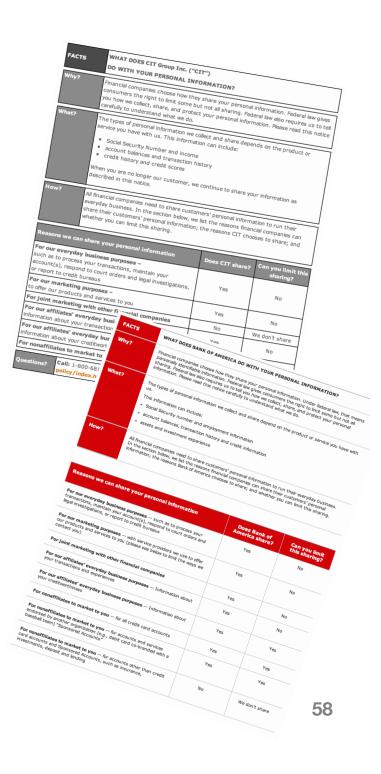
PNC

FACTS	WHAT DOES PNC DO WITH YOUR PERSONAL INFORMATION?
Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	 The types of personal information we collect and share depend on the product or service you have with us. This information can include: Social Security number and income Account balances and account transactions Credit scores and payment history
How?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information, the reasons PNC chooses to share, and whether you can limit this sharing.

Rev. June 2012

Reasons we can share your personal information	Does PNC share?	Can you limit this sharing?		
For our everyday business purposes — such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus	Yes	No		
For our marketing purposes — to offer our products and services to you	Yes	No		
For joint marketing with other financial companies	Yes	Yes		
For our affiliates' everyday business purposes — information about your transactions and experiences	Yes	No		
For our affiliates' everyday business purposes — information about your creditworthiness	Yes	Yes		
For our affiliates to market to you	Yes	Yes		
For nonaffiliates to market to you	No	We don't share		

To limit our sharing	 Call 1-800-762-2118 — our menu will prompt you through your choice(s) Visit us online: <u>www.PNC.com/privacy</u> (Online Banking customers only.) Please note: If you are a <i>new</i> customer, we can begin sharing your information 30 days from the sent this notice. When you are <i>no longer</i> our customer, we continue to share your information as described in this notice. However, you can contact us at any time to limit our sharing. 	
Questions?	Call 1-800-762-2118	
160787-0312	IC#00085294	3.NF-082-SI-0612 003DT6



Gramm-Leach Bliley Act (1999)

- Mandated annual privacy disclosures
- Disclosures were full of fine print, difficult to read and compare



Standardized notice

• Eight federal agencies jointly released a model privacy form (2009)

– Two pages

- Optional, but widely adopted
- Safe harbor

Model Privacy Form

understand what we do. What? The types of personal information we collect and share depend on the product or service you have with us. This information can include: Social Security number and [income] [account balances] and [payment history] [account balances] and [credit scores] How? All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons financial institution] chooses to share; a whether you can limit this sharing.				Rev. [insert date]	
consumers the right to limit some but not all sharing. Federal law also requires us to fall you how we collect, share, and protect your personal information. Please read this notice carefully t understand what we do. What? The types of personal information we collect and share depend on the product or service you have with us. This information can include: Social Security number and [income] [account balances] and [payment history] [account balances] and [payment history] [account balances] and payment history] [account balances] and payment history] [account balances] and payment history] How? All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons [name of financial] not process to share; a whether you can limit this sharing. Reasons we can share your personal information Decs [name of financial] For our everyday business purposes— such as to processe your transactions, maintain your account(e), neppond to court orders and legal investigations, or report to credit bureaus For our affiliates' everyday business purposes— information about your transactions and experiences For our affiliates' everyday business purposes— information about your creditworthiness For our affiliates to market to you Call [phone number]—our menu will prompt you through your choice(s) Visit us online: [website] or Mail the form bolow	FACTS			0	
have with us. This information can include: • Social Security number and [income] • [account balances] and [payment history] • [account balances] • [account balances] • [account balances] • [account colors matching payment history] • [account colers and services to you • [a cole [name of financial payment history] • [account colers and services to you • [a cole [name of financial payment history] • [a cole count colers and services to you • [a cole count colers and services to you • [a cole count colers and services to you • [a cole count colers and services to you • [a cole count colers and services to you • [a cole cole cole cole cole cole cole cole	Why?	consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to			
business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons [name of financial institution] chooses to share; a whether you can limit this sharing. Reasons we can share your personal information Does [name of financial institution] chooses to share; a whether you can limit this sharing. For our everyday business purposes – such as to process your transactions, maintain your account(6), respond to court orders and legal investigations, or report to credit bureaus Can you limit this sharing For our marketing purposes – to offer our products and services to you For our filiates' everyday business purposes – information about your transactions and experiences For our affiliates' everyday business purposes – information about your creditworthiness For our affiliates to market to you Eor our affiliates to market to you Eor our affiliates to market to you To limit our sharing Call [phone number] – our menu will prompt you through your choice(s) Visit us online: [website] or Mail the form below Please note: If you are a <i>now</i> customer, we can begin sharing your information [30] days from the date we set this notice. However, you can contact us at any time to limit our sharing. 	What?	have with us. This information can include: Social Security number and [income] [account balances] and [payment history]			
Residence we can share your personal information institution] share? Can you unit this sharing For our everyday business purposes — such as to process your transactions, maintain your account(6), respond to court orders and legal investigations, or report to credit bureaus Image: Can you unit this sharing For our marketing purposes — to offer our products and services to you Image: Can you unit this sharing For our marketing with other financial companies Image: Can you unit this sharing For our affiliates' everyday business purposes — information about your transactions and experiences Image: Can you unit this sharing For our affiliates' everyday business purposes — information about your creditworthiness Image: Can you unit this sharing For our affiliates to market to you Image: Can you unit this sharing To limit our sharing Image: Can you unit this sharing you through your choice(s) Image: Veryday business purposes — information about your creditworthiness Image: Can you unit this sharing you through your choice(s) For nonaffiliates to market to you Image: Can you unit this sharing you information [30] days from the date we sent this notice. When you are no longer our customer, we continue to share your information a described in this notice. However, you can contact us at any time to limit our sharing. Image: Can you unit this sharing you	How?	business. In the section below, we lis customers' personal information; the	at the reasons financial compar	nies can share their	
For our everyday business purposes— such as to process your transactions, maintain your account(b), respond to court orders and legal investigations, or report to credit bureaus For our marketing purposes— to offer our products and services to you For our marketing with other financial companies For our affiliates' everyday business purposes— information about your transactions and experiences For our affiliates' everyday business purposes— information about your transactions and experiences For our affiliates or market to you For nonaffiliates to market to you For nonaffiliates to market to you Por nonaffiliates to market to you Por nonaffiliates to market to you Por sharing • Call [phone number]—our menu will prompt you through your choice(s) • Visit us online: [website] or • Mail the form bolow Please note: If you are a <i>new</i> customer, we can begin sharing your information [30] days from the date we sent this notice. When you are <i>no longer</i> our customer, we continue to share your information a described in this notice. However, you can contact us at any time to limit our sharing.	Reasons we can	share your personal information		Can you limit this sharing?	
to offer our products and services to you For joint marketing with other financial companies For our affiliates' everyday business purposes information about your transactions and experiences For our affiliates' everyday business purposes information about your creditworthiness For our affiliates to market to you For nonaffiliates to market to you For nonaffiliates to market to you Collignment	such as to proces your account(s), re	s your transactions, maintain espond to court orders and legal			
For our affiliates' everyday business purposes – information about your transactions and experiences					
information about your transactions and experiences For our affiliates' everyday business purposes— information about your creditworthiness For our affiliates to market to you For nonaffiliates to market to you To limit our sharing • Call [phone number]—our menu will prompt you through your choice(s) • Visit us online: [website] or • Mail the form below Please note: If you are a new customer, we can begin sharing your information [30] days from the date we sent this notice. However, you can contact us at any time to limit our sharing.	For joint marketi	ng with other financial companies			
information about your creditworthiness Image: Second					
For nonaffiliates to market to you To limit our sharing Call [phone number] – our menu will prompt you through your choice(s) Visit us online: [website] or Mail the form below Please note: If you are a new customer, we can begin sharing your information [30] days from the date we sent this notice. However, you can contact us at any time to limit our sharing. 					
To limit Call [phone number] — our menu will prompt you through your choice(s) Visit us online: [website] or Mail the form below Please note: If you are a <i>new</i> customer, we can begin sharing your information [30] days from the date we sent this notice. However, you can contact us at any time to limit our sharing. 	For our affiliates	to market to you			
 Visit us online: [website] or Mail the form below Please note: If you are a <i>new</i> customer, we can begin sharing your information [30] days from the date we sent this notice. When you are <i>no longer</i> our customer, we continue to share your information a described in this notice. However, you can contact us at any time to limit our sharing. 	For nonaffiliates	to market to you			
Questions? Call [phone number] or go to [website]		 Visit us online: [website] or Mail the form below Please note: If you are a <i>new</i> customer, we can b sent this notice. When you are <i>no loi</i> described in this notice. 	sgin sharing your information () iger our customer, we continue	30] days from the date we	
	Questions?	Call [phone number] or go to [websit	e]		

Leave Blank	Mark any/all you want to limit:			
OR [If you have a joint account.	Do not share information about my creditworthiness with your affiliates for their everyday business purposes.			
your choice(s)	Do not allow your affiliates to use my personal information to market to me.			
will apply to	Do not share my personal information with nor	naffiliates to market their products and		
	services to me.			
account unless	services to me. Name	Mail to:		
account unless you mark below. Apply my choices only		[Name of Financia Institution]		
	Name	[Name of Financia		

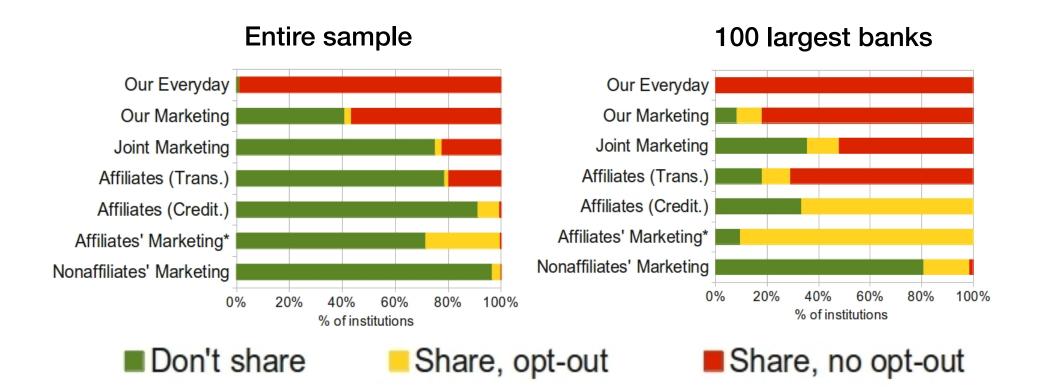
Page 2

Who we are	
Who is providing this notice?	[insert]
What we do	
How does [name of financial institution] protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings.
	[insert]
How does [name of financial institution]	We collect your personal information, for example, when you
collect my personal information?	 [open an account] or [deposit money] [pay your bills] or [apply for a loan] [use your credit or debit card]
	[We also collect your personal information from other companies.] OR [We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.]
Why can't I limit all sharing?	Federal law gives you the right to limit only
	 sharing for affiliates' everyday business purposes—information about your creditworthiness affiliates from using your information to market to you sharing for nonaffiliates to market to you State laws and individual companies may give you additional rights to
	limit sharing. [See below for more on your rights under state law.]
What happens when I limit sharing for an account I hold jointly with someone else?	[Your choices will apply to everyone on your account.] OR [Your choices will apply to everyone on your account—unless you tell us otherwise.]
Definitions	
Affiliates	Companies related by common ownership or control. They can be financial and nonfinancial companies. [affiliate information]
Nonaffiliates	Companies not related by common ownership or control. They can be financial and nonfinancial companies.
	[nonaffiliate information]
Joint marketing	A formal agreement between nonaffiliated financial companies that together market financial products or services to you. [joint marketing information]
Other important information	
[insert other important information]	

Data collection and extraction

- FDIC directory of 7,072 institutions
- Searched for them all with Google queries
- Found model privacy form in HTML or PDF
- Parsed form and put it in a database
 - Many errors and deviations from model form had to be accounted for
 - Manual check shows our parsing accuracy to be >90%
- Currently collecting data for larger list FOIAed from the Federal Reserve

Sharing practices



What Info is Collected, and How

• What: 24 options, SSN + choose exactly 5

What? The types of personal information we collect and share depend on the product or service you have with us. This information can include: Social Security number and [income] [account balances] and [payment history] [credit history] and [credit scores]

• How: 34 options, choose exactly 5

How does [name of financial institution] collect my personal information?

We collect your personal information, for example, when you

- [open an account] or [deposit money]
- [pay your bills] or [apply for a loan]
- [use your credit or debit card]
- The most commonly used terms were the examples listed in the model

Curiosities Encountered

• Self-contradictory statements (15)

Does Geneva State Bank share?

Yes

Yes

Yes

Curiosities Encountered

• Self-contradictory statements (15)

Does Geneva State Bank share?	Can you limit this sharing?
Yes	We don't share
Yes	We don't share
Yes	We don't share

Curiosities Encountered

• Self-contradictory statements (15)

Does Geneva State Bank share?	Can you limit this sharing?
Yes	We don't share
Yes	We don't share
Yes	We don't share

• 24 institutions appear to be violating the Fair Credit Reporting Act (FCRA)

– Not providing required opt-outs

Takeaways

- Model form needs some improvement
- Adoption happens when there are incentives
- Institutions are actually different!
 - Largest institutions have the worst practices
 Opportunity for consumer privacy choice
- But we need to help consumers find the banks with good privacy

		cups.cs.cmu.edu	Ċ	1 0		
		Bank Privacy: Search		+		
Bank Privacy			Q Search 🏦 Foi	Banks 🤉 About 🚱		
We've collected 6,326 banks' privacy notices. See how your bank stacks up						
	Look up a bank		Q			
	or find	d banks in your ZIP code Enter ZIP code				
	or search	for a privacy-protective bank.				
	Characteristic		Privacy practice			
Specialization:	ANY	Own marketing:	ANY			
		Joint marketing:	Doesn't share			
Size:	ANY	Affiliates (transactions):	Doesn't share			
		Affiliates (creditworthiness):	ANY			
Headquarters:	Maryland	Affiliates' marketing:	ANY			
		Nonaffiliates' marketing:	ANY			
		Search for such a bank				
			Carnegio	Mellon University		

http://cups.cs.cmu.edu/bankprivacy/

The following 7 banks meet your criteria:

			This institution's privacy practices					
Institution	Local branches	Everyday business		Joint marketing		Affiliates: credit		Nonaffiliates' marketing
Sandt Bank	Indiana, PA	(Missing)	(Missing)	Doesn't share	Doesn't share	Doesn't share	(Missing)	Doesn't share
Dollar Bank Federal Savings Bank	Pittsburgh, PA	Shares	Shares	Doesn't share	Shares	Opt-out	Opt-out	Doesn't share
PNC Bank National Association	Wilmington, DE	Shares	Shares	Opt-out	Shares	Opt-out	Opt-out	Doesn't share
Citizens Bank of Pennsylvania	Philadelphia, PA	Shares	Shares	Shares	Shares	Doesn't share	Opt-out	Doesn't share
Fifth Third Bank	Cincinnati, OH	Shares	Shares	Shares	Shares	Opt-out	Opt-out	Doesn't share
First Commonwealth Bank	Indiana, PA	Shares	Shares	Shares	Shares	Opt-out	Opt-out	Doesn't share
Northwest Savings Bank	Warren, PA	Shares	Shares	Shares	Shares	Opt-out	Opt-out	Opt-out

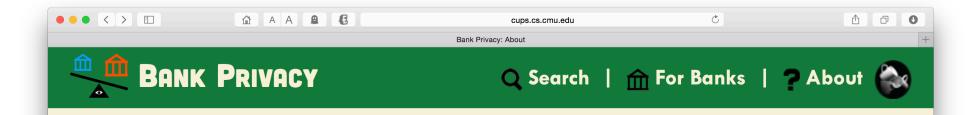
Carnegie Mellon University

🔂 A A 🚇 🚯 Ċ ••• Û Ū 0 cups.cs.cmu.edu Bank Privacy: Display an institution BANK PRIVACY Q Search | 🏫 For Banks | 🦻 About 🎆 **PNC Bank National Association** Headquartered in Wilmington, DE 19899 Standardized notice: Cached Website: pnc.com (Revised June 2013) Reasons banks may share your personal information **Does PNC Bank National Association share?** For our everyday business purposes Shares, no opt-out 0.8% do better? such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus For our marketing purposes Shares, no opt-out 35.8% do better? to offer our products and services to you For joint marketing with other financial companies Shares, offers opt-out 55.5% do better? Shares, no opt-out 75.2% do better? For our affiliates' everyday business purposes information about your transactions and experiences Shares, offers opt-out 85.9% do better? For our affiliates' everyday business purposes information about your creditworthiness Shares, offers opt-out 27.2% do better? For our affiliates to market to you Doesn't share? For nonaffiliates to market to you

The FDIC's database listed 2843 branch locations.

Hide locations

Address	City	State	e ZIP
308 East Bay Street	Nassau		
130 King Street West, Suite 2140	Toronto		
10745 Highway 119 South	Alabaster	AL	35007
83183 Highway 9	Ashland	AL	36251
104 North 1st Street	Ashland	AL	36251
1044 Highway 72 East	Athens	AL	35611
2085 East University Drive	Auburn	AL	36830
1605 South College Street	Auburn	AL	36832
511 Dolive Street	Bay Minette	AL	36507
13825 South Wintzell Avenue	Bayou La Batre	AL	36509
1719 Fourth Avenue North	Bessemer	AL	35020
2407 Canterbury Road	Birmingham	AL	35223
9648 Parkway East	Birmingham	AL	35215



FOR BANKS: A TOOL FOR BUILDING PRIVACY NOTICES

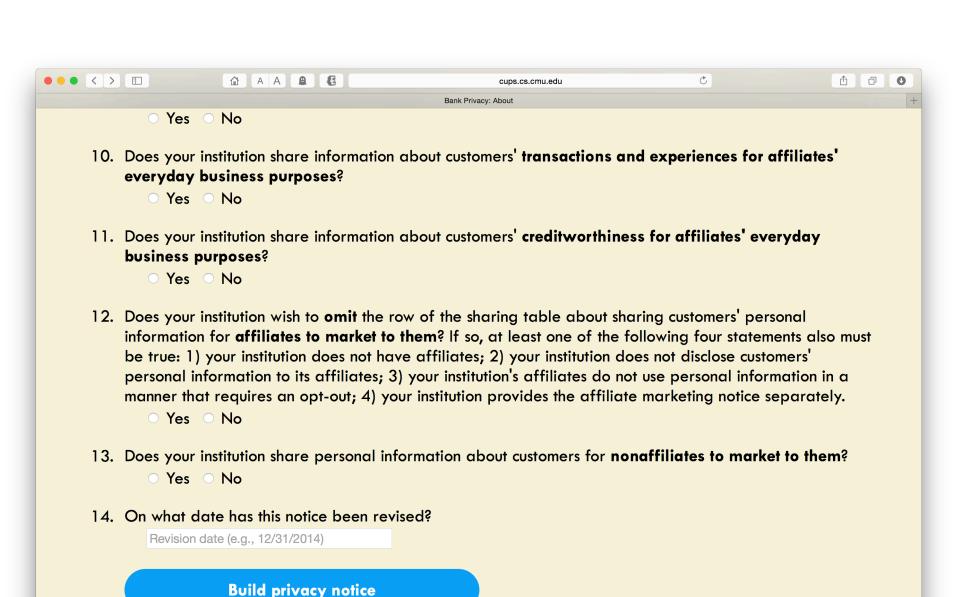
This section of the site is designed for **financial institutions themselves**, rather than consumers. Our online database leverages annual GLBA privacy notices we automatically collected and parsed, as described in the <u>"About" section of this website</u>, as well as in greater detail in <u>an academic paper</u> we wrote about our project.

We at Carnegie Mellon University's CUPS lab have also designed a **free tool to help your institution prepare its privacy disclosure**! By answering the questions listed below, you will provide us enough information to automatically generate an HTML privacy notice for you following the guidelines of the <u>model privacy notice</u>. After you answer the questions, you will be taken to a page consisting of your privacy notice. We format notices using HTML5 and CSS. The notice we generate is self-contained; the CSS (stylesheet) is embedded in the HTML file itself. You simply need to use your browser to "Save page as." This option is normally found in a browser's "File" menu. Please <u>let us know</u> if you find our tool useful or have improvements to suggest. Note that this tool is still in beta testing; please report on any issues you find!

As you and your colleagues work to prepare the privacy notice for your institution, we also encourage you to reference the Federal Trade Commission's <u>GLBA guidance pages</u>, particularly guidance related to <u>compliance</u>, <u>legal requirements</u>, and <u>writing effective privacy notices</u>. In addition, the full <u>full documentation of the model</u> <u>privacy form</u> is invaluable.

Please answer the following questions so that we can generate a privacy notice for your institution:

	What is the name of the financial institution providing the notice? (It can also be a common identity of affiliated institutions jointly providing the notice.)				
	Institution name (e.g., Pinnacle Bank of Cl	MU)			
2.	What is your institution's contact pho with questions or to opt out of sharin Phone # (e.g., 1-800-000-0000)		instructed to call this phone num	ber	
3.	Is the phone number you listed in the \odot Yes \odot No	e previous question a toll-free n	number?		
4.	What is your institution's website UR opt out of sharing, if applicable.	L? Consumers will be instructed	to visit this website with question	ns or to	
	Website URL (e.g., www.PinnacleBankCW	IU.com)			
5.	What types of personal information least five. If you choose more than \$	n does your institution collect and 5, only the first five will be disp	layed.	ose at	
5.	What types of personal information least five. If you choose more than S Income	n does your institution collect and 5, only the first five will be disp Account balances	layed. Payment history 	ose at	
5.	What types of personal information least five. If you choose more than S Income Transaction history	a does your institution collect and 5, only the first five will be disp Account balances Transaction or loss history	layed. □ Payment history □ Credit history	ose at	
5.	What types of personal information least five. If you choose more than S Income Transaction history Credit scores	a does your institution collect and 5, only the first five will be disp Account balances Transaction or loss history Assets	layed. Payment history Credit history Investment experience	ose at	
5.	What types of personal information least five. If you choose more than & Income Transaction history Credit scores Credit-based insurance scores	a does your institution collect and 5, only the first five will be disp Account balances Transaction or loss history Assets Insurance claim history	layed. Payment history Credit history Investment experience Medical information	ose at	
5.	 What types of personal information least five. If you choose more than 2 Income Transaction history Credit scores Credit-based insurance scores Overdraft history 	 does your institution collect and 5, only the first five will be displayed Account balances Transaction or loss history Assets Insurance claim history Purchase history 	layed. Payment history Credit history Investment experience	ose at	
5.	What types of personal information least five. If you choose more than & Income Transaction history Credit scores Credit-based insurance scores	a does your institution collect and 5, only the first five will be disp Account balances Transaction or loss history Assets Insurance claim history	layed. Payment history Credit history Investment experience Medical information	ose at	
5.	 What types of personal information least five. If you choose more than 2 Income Transaction history Credit scores Credit-based insurance scores Overdraft history 	 does your institution collect and 5, only the first five will be displayed Account balances Transaction or loss history Assets Insurance claim history Purchase history 	layed. Payment history Credit history Investment experience Medical information Account transactions		
5.	 What types of personal information least five. If you choose more than 2 Income Transaction history Credit scores Credit-based insurance scores Overdraft history Risk tolerance 	 does your institution collect and 5, only the first five will be displayed Account balances Transaction or loss history Assets Insurance claim history Purchase history Medical-related debts 	 layed. Payment history Credit history Investment experience Medical information Account transactions Credit card or other debt 		





cups.cs.cmu.edu

Privacy Notice Result

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Rev. July 9, 2015

FACTS	WHAT DOES First City National trust DO WITH YOUR PERSONAL INFORMATION?
Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	 The types of personal information we collect and share depend on the product or service you have with us. This information can include: Social Security number and account balances transaction history and transaction or loss history credit scores and overdraft history
How?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons First City National trust chooses to share; and whether you can limit this sharing.

Reasons we can share your personal information	Does First City National trust share?	Can you limit this sharing?
For our everyday business purposes — such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes — to offer our products and services to you	Yes	Yes



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