

MIT Connection Science mozilla



Tools for transparency: examples and challenges

Data Transparency Lab 2016 An Open Organisation was created with the target of building a new community

WHAT IS THE DATA TRANSPARENCY LAB?

A community of technologists, researchers, policymakers and industry representatives working to advance online personal data transparency through scientific research & design

Telefinica

mozilla





Personal Data Transparency is about providing tools to redress the transparency unbalance between the user and the rest of the ecosystem

USERS WANT TO UNDERSTAND THE USE OF THEIR DATA AND DECIDE WHAT TO DO

DIFFERENT ATTITUDES TOWARD PRIVACY

Flexibility

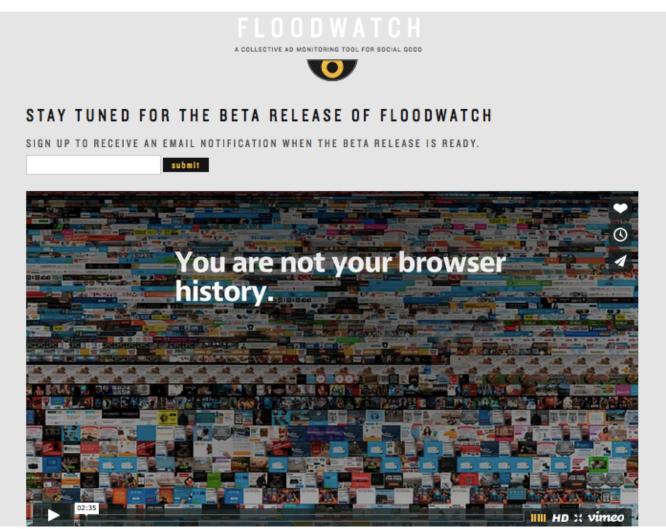
DIFFERENT TYPES OF PRACTICES ON PERSONAL DATA

Different tools needed

PERSONAL DATA TRANSPARENCY

know understand act





PERSONAL DATA TRANSPARENCY: DIMENSIONS

KNOW: WHAT?







Detecting Price Discrimination

Home Manual Normal user Contributors Product Search People

Install Sheriff_v2 - Chrome

Install Sheriff_V2 - Firefox

Install Sheriff(Old version) - for IE

KNOW: WHAT?

All Prices Results Results Det	ails	
‡ Variant	Converted Value	Original Text
🗅 You	€ 15.47*	\$16.94
🗋 Windows 7, Chrome, Spain	€ 15.47*	\$16.94
🗅 Mac OS, Safari, Spain	€ 15.47*	\$16.94
🗅 Linux, Firefox, Spain	€ 15.47*	\$16.94
🗋 United States, Washington	€ 9.12*	\$9.99
🗋 United States, California	€ 9.12*	\$9.99
🗅 United States, Maryland	€ 9.12*	\$9.99
🗋 United States, Florida	€ 9.12*	\$9.99
🗋 United States, Arizona, Tuscor	n € 9.12*	\$9.99
🗅 Canada, Ontario	€ 10.05*	\$11.01
🗋 Czech Republic, Praha	€ 11.04*	\$12.09
🗅 Poland, Warsaw	€ 11.22*	\$12.29
🗅 Italy, Sicilia	€ 16.89*	\$18.50
France, Champage-ardenne, Troyes	€ 13.48*	\$14.76
Ireland, Westmeath	€ 10.58*	\$11.59
🗅 Portugal, Praga	€ 11.22*	\$12.29
🗅 New Zealand, Dunedin	€ 9.12*	\$9.99
🗅 Hong Kong	€ 9.12*	\$9.99
Singapore, Singapore	€ 9.12*	\$9.99
🗅 Thailand, Bangkok	€ 9.12*	\$9.99

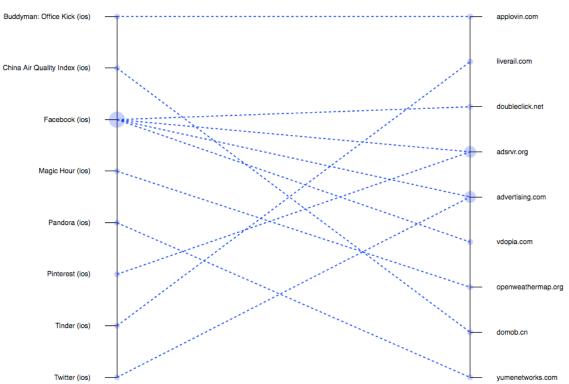
KNOW: WHAT?

ReCon	Home	About	Contact	
What do y control	vou want Re	Con to do	vith this leak in the futur	re? Tap to
) by the *d	C8F0300F74A has been efault* app at least 6 tir	
2016-04-07	15:03:07 U	FC). Is this	correct?	
What do y control	vou want Re	Con to do	vith this leak in the futur	re? Tap to
idfa=203324	135-11EE-4	F93-AF78-	C8F0300F74A has bee	en sent to
			app at least 2 times, (la	
12:32:21 UT	C). Is this	correct?	•	
What do y control	vou want Re	Con to do	vith this leak in the futur	re? Tap to
_			BC8F0300F74A has bee times, (lastest at 2016-0	
Is this corr	ect?	•		
What do y	vou want Re	Con to do	vith this leak in the futur	re? Tap to
			C8F0300F74A has been by the *default* app a	
			c). Is this correct?	
				_

KNOW: WHO?

Understand the actors and players

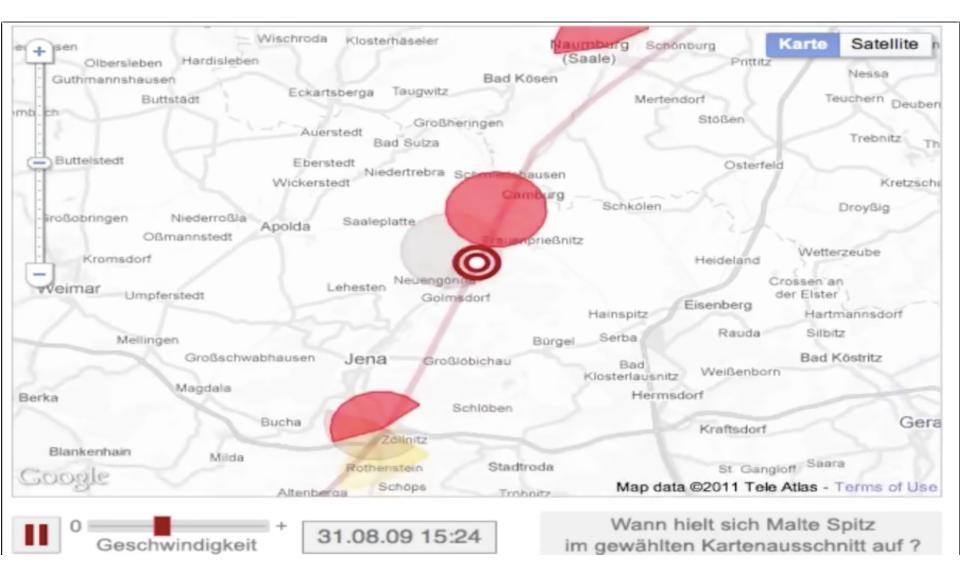
Graph of Applications leaking PI vs. receiving Domains.



Operating System: ios. Only Trackers. Category: LOCATION

PERSONAL DATA TRANSPARENCY: DIMENSIONS

KNOW: WHEN? WHERE?



KNOW: HOW?

Log in / Register Search Q

Topics+ The Daily Magazine Business Reports More+

If you read or clicked anything online today, some part of Google probably knows about it.

That's one lesson from the largest study yet of the technology that tracks people's movements around the Web. When Princeton researchers logged the use of tracking code on the Internet's millic most popular websites, Google code was found on a majority of th

Google Analytics, a product used to log visitors to websites that

MIT Technology Review

Computing

Largest Study of Online Tracking Proves Google Really Is Watching Us All

KNOW: WHY? WHAT FOR?



Session ads: 4 -Value: 0.008\$

Ads clicked: 1

Value generated:

-This session: 0.198\$ -Today: 0.198\$ -Last 7 days: 0.198\$ -Last 30 days: 0.576\$

TOTAL GENERATED VALUE:

0.865 \$

The best way to raise awareness is by offering tools that let them easily understand how data is being used

TOOL AVAILABILITY IS KEY

Awareness will be raised by offering **tools** to users that let them **understand** what happens with their **personal data and manage it**

TOOLS TO HELP THE CONSUMERS AND HELP THE HELPERS

The users of the tools could be **end-users**, but also **journalists**, **activists**, **policy-makers**, **regulators** that need also to understand what is going

By establishing cooperation with the key scientific communities working on Internet Privacy and Transparency

2015: 6 GRANTS AWARDED

"WEB PRIVACY CENSUS"



BALANCE BETWEEN PRIVACY AND FUNCTIONALITY



"DIGITAL HALO" TOOL

Technical University of Denmark

DATA-DRIVEN PRIVACY ANALYSIS FOR END-USERS Carnegie Mellon University

REVEALING AND CONTROLLING MOBILE PRIVACY LEAKS



FACEBOOK DATA VALUATION TOOL



Universidad Carlos III de Madrid By establishing cooperation with the key scientific communities working on Internet Privacy and Transparency

2016: GRANTS

TranspAd: A Collaborative Tool to Bring Transparency to Targeted Advertising



ANTMONITOR: ON-DEVICE NETWORK MONITORING FOR PRIVACY



CHARACTERIZING INDIRECT PRIVACY LEAKS IN MOBILE APPS



INTERNATIONAL COMPUTER SCIENCI INSTITUTE

PrivacyMeter: Real-time Privacy Quantification for the Web DETECTION AND CIRCUMVENTION OF AD-BLOCK DETECTORS: A NEW ARMS RACE ON THE WEB FINDING WALDO IN A HAYSTACK OF INFORMAL WRITING STYLES





TRANSPARENCY: DIMENSIONS

UNDERSTANDABILITY

FAIRNESSS

ACCOUNTABILITY

OFFERING USERS AND CONTROL ABOUT THE WHO, WHAT, WHEN, HOW AND WHY OF THEIR PERSONAL DATA USE

SUPPORTING DEVELOPMENT OF TOOLS

RAISING PUBLIC AWARENESS ON DISCOVERED BAD PRACTICES BY SHARING AGGREGATED DATA

EXPADING THE COMMUNITY OF RESEARCHERS, DEVELOPERS, INDUSTRY, POLICMAKERS

DATA TRANSPARENCY LAB: INSTRUMENTS

DTL CONFERENCE

GRANT PROGRAM



- Run annualy
- 6-10 50 K Grants
- Opens in April
- Selection June

TOOL CURATION

- NYC COLUMBIA
- Co'located with ACMs DAT and Fairness Accountability and Transparency in Machine Learning workshops
- Opening up Data and Tool Sets
- Support to proposals by emerging industry



mozilla

MIT Connection Science



http://datatransparencylab.org http://dtlconferences.org

@DTL_info
@ramonsang