LIBRARY AND INTERNET PRIVACY

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Librarian

Bottom Lines at the Top

- The privacy that libraries and librarians have worked hard at providing users with in the print-only age is not at the level it should be in the digital age. What happened?
- Awareness (by all parties), discussion, and education (of ourselves and our users) is a must and needed now

Bottom Lines at the Top

- Work by various organizations is underway
- Examples
 - NISO Privacy Initiative
 - ALA: Ebook Privacy Guidelines
 - Library Freedom Project

Publisher Involvement

More and More Using/Going To HTTPS A Few of Several Examples:

- Bibliocommons
- Project Muse
- OverDrive
- BiblioBoard
- We Need More!

Privacy is More Than Encrypted Data Transmission (http/https)

- Local Library Data (Circ, Transaction Logs, Addresses, Scrubbing)
- Privacy policies, disclosure
- Sharing with vendors, others can happen but we should let users decide, give them options, understand
- Data storage

Privacy is More Than Encrypted Data Transmission #2

- Third parties (policies, integrity of systems, data retention policies, notification procedure, hiring policies)
- Opt-In services vendors offer (save results, email sharing, alerts)
- Is technology configured correctly?

Privacy is More Than Encrypted Data Transmission #3

- Personnel
- Response plans
- Awareness
- Training
- Staying current, vigilant

What Are We Scared Of?

- Improving privacy does NOT mean we have to stop doing what we do
- Isn't transparency what we ask of others?
- In today's world you need to be ahead of the story, pre-emptive vs. reactive
- Info that many people want to know about
- European web sites, cookie disclaimer

Library Center for Privacy Info and Education

- Forget "ethical" and "this is what we have always done" reasons, a huge marketing opportunity for libraries/librarians.
- In past few years privacy/surveillance is a very relevant topic
- Community/campus "privacy clearinghouse" regardless of direct library relationship (ex. social media services)
- Leverages respect for our past efforts and public respect
- Involve others (legal, ethics, journalism, etc.)

Terms and Concepts

- Cookies
 - Third-Party cookies/tracking cookies
- Beacons
 - Embedded in HTML
 - From a Wireless Device, Follow You Around a Location
 - Analytics
 - Sharing with third party vs. locally (Piwik)
- Even if a web page is encrypted, calls to other pages might not be encrypted, possible "leak"

Live Demo

- Tools Used (at a Very Basic Level)
 - WireShark (Sniffer)
 - Cookie Cadger (Developed by a lowa St. University Grad Student)
 - LightBeam (See "sharing" relationships)
 - IPLocation (GeoIP)
 - BrowserSpy.dk
 - Important: It has been shown that it's easy to identify a person using tracking data
 - Combining of multiple data points is key

Tools and Techniques

- VPN's
- Ghostery
- NEW: Firefox Tracking Protection
- EFF Privacy Badger
- Disconnect.me
- AdBlock and Privacy List Add-On
- Tor (for individual use)
- Clearing cookies and beacons often

Name Tied To Specific Devices (Easy to Change to Something Else)

```
18:12:44.966483000 RuckusWi_3d:d0:08
```

18:12:44.976152000

18:12:44.977429000 RuckusWi_02:a0:28

18:12:44.979104000

18:12:44.979164000 RuckusWi_02:a0:28 (TA)

18:12:44.979265000 Jeff-W

iPhone.local

18:12:44.980333000

18:12:44.991627000 HonHaiPr_d7:12:b3 (TA)

Tracking Scripts and Beacons (CNN.com)

Click here for more information about ClickTale

Detected tracker source URLs:

http://cdn.clicktale.net/www04/phc/342da402-a44b-4b59-aba4-8fc... http://cdn.clicktale.net/www04/ptc/342da402-a44b-4b59-aba4-8fc...



Criteo

Advertising, Search





Click here for more information about Criteo

Detected tracker source URLs:

http://rtax.criteo.com/delivery/rta/rta.js?netId=4157&cookieName=...

Dynamic Viold



IP Geolocation

Geolocation data from	IP2Location	Product: DB4 u	pdated on 11/2/2015)

IP Address	Country	Region	City	ISP
50.252.150.1	United States	South Carolina	Beaufort	Comcast Cable Communications Holdings Inc

Google Map for Beaufort, South Carolina, United States (New window)

Geolocation data from EurekAPI (Product: Pro C., demand API)

IP Address	Country	Region	City	ISP
50.252.150.1	United States	South Carolina	Mount Pleasar	nt Comcast Cable
	Continent	Latitude	Longitude	Organization
	North America	32.7941	-79.8626	Comcast Cable

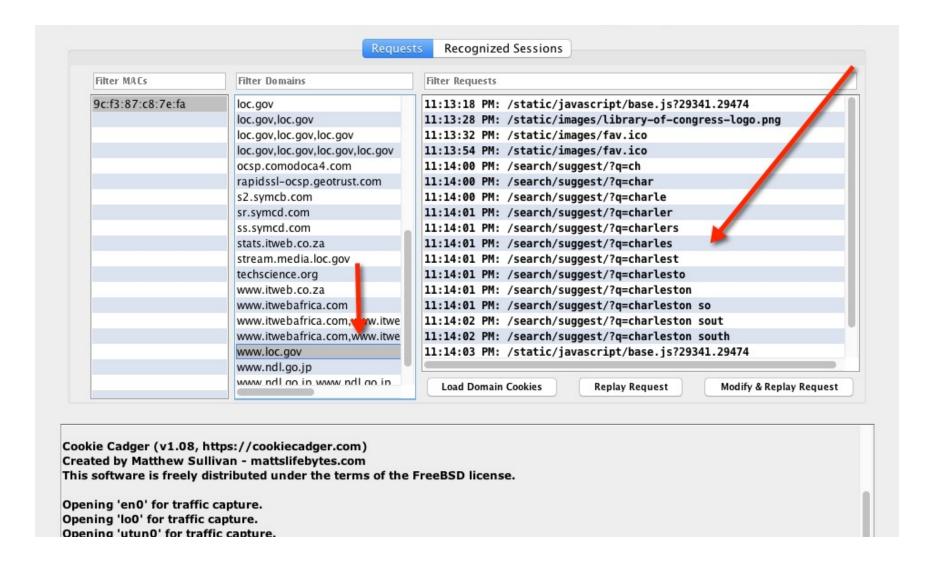
Google Map for Mount Pleasant, South Carolina, United States (New window)

Geolocation data from DB-IP (Product: Full updated on 11/3/2015)

IP Address	Country	Region	City	ISP
0.252.150.1	US 🕮	South Carolina	Charleston	Comcast Cable Communications Holdings
	Time Zone	Latitude	Longitude	Organization
	America/new_york	32.7765	-79.9311	Comcast Cable Communications Holdings, Inc

Goode Map for Charleston, South Carolina, US (New window)

OPAC Search



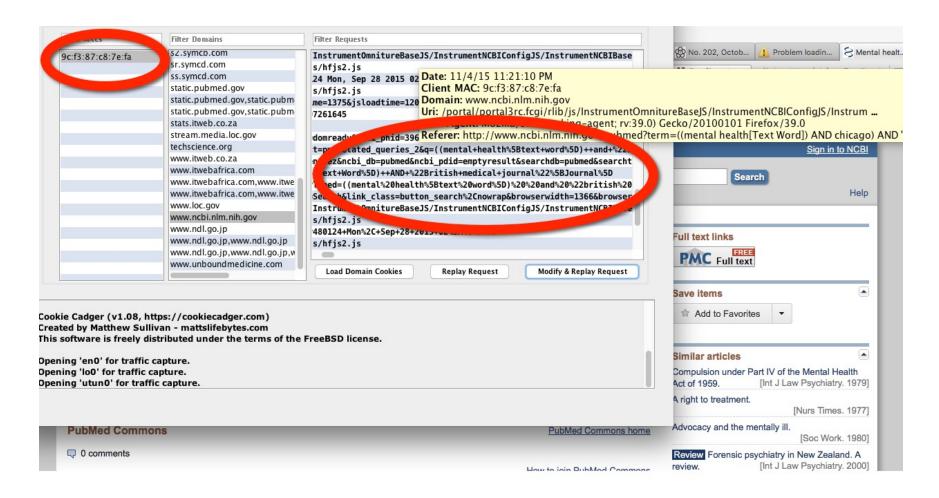
OPAC Search #2

UKI:
/search/suggest/?q=charlest
User Agent:
Mozilla/5.0 (masking-agent; rv:39.0) Gecko/20100101 Firefox/39.0
Referer:
http://loc.gov/
Authorization:
Cookies:

Analytics View of Visit to Library Web Site

UNI.
/utm.gif?utmwv=5.6.7&utms=2&utmn=835626453&utmhn=library.caltech.edu&utmcs=UTF -8&utmsr=1600x900&utmvp=1584x777&utmsc=24-bit&utmul=en-us&utmje=1&utmfl=10.0
User Agent:
Mozilla/5.0 (Windows NT 6.1; WOW64; rv:37.0) Gecko/20100101 Firefox/37.0
Referer:
http://library.caltech.edu/
Authorization:
Cookies:

PubMed Search



What Can We Do TODAY!

- Become privacy literate, needs to be a major part of digital literacy
- Awareness of tools and concepts to minimize exposure (if desired, required)
- Stay current (things change QUICKLY)
- Discuss issues with colleagues, users
- Teach our colleagues, users

Resources List

- Exposing the Hidden Web: An Analysis of Third-Party
 HTTP Requests on One Million Websites
- Cookies That Give You Away: The Surveillance Implications of Web Tracking
- Tracking the Trackers: Where Everybody Knows Your Username"
- The Web's New Gold Mine: Your Secrets