CS 115: COMPUTING FOR THE SOCIO-TECHNO WEB

AD NETWORKS & COOKIES
TODAY

• Assignment 6
• Registration Q&A
• Cookie technologies
• Online advertisement
• Activity
BROWSER CHATTER

Browsers chatter about

• IP address, domain name, organization
• Referring page
• Platform: O/S, browser
• What information is requested
  • URLs and search terms
• Cookies

To anyone who might be listening

• End servers
• System administrators
• Internet Service Providers
• Other third parties
  • Advertising networks
• Anyone who might subpoena log files later
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SHOPPING CARTS

Want to remember “state” or history during browsing.
COOKIES 101

Cookies can be useful

• Used like a staple to attach multiple parts of a form together
• Used to identify you when you return to a web site so you don’t have to remember a password
• Used to help web sites understand how people use them

Cookies can do unexpected things

• Used to profile users and track their activities, especially across web sites
First visit to site

Please store cookie xyzzy

Later visits

Here is cookie xyzzy
View your data and account activity in the Google Dashboard

You can see your data and information about how you’ve used Google’s products by visiting the Google Dashboard. You can get to the settings of most Google products you use from there and can use it to check for suspicious activity on your account.

- Review account activity
- Edit settings for a product
- Check for suspicious account activity
- Sign up for a monthly reminder

Watch video tutorials
WHAT’S IN OUR COOKIE JAR?

Firefox -> Preferences -> Privacy

Chrome -> Preferences (Show advanced settings) -> Privacy
Cookies can store user info or a database key that is used to look up user info.
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THIRD PARTY COOKIES

- search for medical information
- set cookie
- replay cookie
- buy CD

Search Service

CD Store
BEHAVIORAL TARGETING
AD NETWORKS

Asia Pacific will grow faster than North America through 2021

Global Internet advertising market (US$bn), by region, by share, 2012-2021

Source: Global entertainment and media outlook 2017–2021, PwC, Ovum
Get your ad on Google today

Be seen by customers at the very moment that they’re searching on Google for the things you offer. And only pay when they click to visit your website or call.

Start now

Free phone support: 1-855-607-0435 *

Freshly Brewed Coffee

Always perfectly brewed coffee. The perfect way to start your day.

Start your morning with Only Fresh Coffee

Only Fresh Coffee has been family-owned and operated since 1986. We’re dedicated serving the freshest coffee, brewed from beans we roast ourselves. Drop by our frie neighborhood store and enjoy a cup today.

Local Fresh Coffee
Get connected
Connect with the right people, in the right moments, with DoubleClick integrated solutions

Make digital work on your own terms
DoubleClick's integrated solutions have you covered. Connect to a world of possibilities while focusing on the areas that you care about most.
Facebook Audience Network
Create an ad on Facebook. Show it across the Web.

MORE PEOPLE, MORE PLACES, MORE RESULTS
Extend your campaigns beyond Facebook

Real people
Connect with more of the people you care about, no matter where they are on the web.

More places
Show your Facebook ads across high-quality apps and sites.

Real results
Drive more outcomes and improve your campaign efficiency.
A great campaign starts with the right audience

Predefined Audiences
Choose from over 300 audiences based on what Snapchatters care about, what they buy, what they watch, and where they go.
WHAT AD NETWORKS MAY KNOW...

Personal data:
- Email address
- Full name
- Mailing address (street, city, state, and Zip code)
- Phone number

Transactional data:
- Details of plane trips
- Search phrases used at search engines
- Health conditions
“WEB BUGS”

• Invisible “images” (1-by-1 pixels, transparent) embedded in web pages and cause referrer info and cookies to be transferred
  • Also called web beacons, clear gifs, tracker gifs, etc.

• Work just like banner ads from ad networks, but you can’t see them unless you look at the page source

• Also embedded in HTML formatted email messages, MS Word documents, etc.
SUPER-COOKIE

The meanest of them all

A supercookie is a cookie with an origin of a top-level domain (such as .com) or a public suffix (such as .co.uk).

Typically they are blocked by the browser.

Supercookies can be a potential security concern and are therefore often blocked by web browsers.

For example, a supercookie with an origin of .com, could maliciously affect a request made to example.com, even if the cookie did not originate from example.com. This can be used to fake logins or change user information.
HTTP REQUEST THAT SETS A COOKIE

Web Site which uses Cookies

Web Page Request Header

```
GET /index.html HTTP/1.1
Host: www.example.org
```

Web Page Response Header

```
HTTP/1.0 200 OK
Content-type: text/html
Set-Cookie: name=value
Set-Cookie: name2=value2; Expires=Wed, 09 Jun 2021 10:18:14 GMT

(content of page)
```
DO NOT TRACK

Specify opt-out preference with an HTTP header
Support provided by your browser
  • Again Firefox->Preferences->Privacy
  • Chrome->Preferences->setting->advanced->privacy
In certain countries, it is illegal to track users without their knowledge and consent. For example, in the United Kingdom, customers must consent to use of cookies/local shared objects:[2]

“Cookies or similar devices must not be used unless the subscriber or user of the relevant terminal equipment:

▷ is provided with clear and comprehensive information about the purposes of the storage of, or access to, that information; and

▷ is given the opportunity to refuse the storage of, or access to, that information.

—Information Commissioner’s Office
Now California’s attorney general, Kamala D. Harris, wants every site to tell you — in clear language — if and how it is respecting your privacy preferences. The guidelines, published on Wednesday, are intended to help companies comply with a new state privacy law that went into effect on Jan. 1. That law requires sites to prominently disclose all their privacy practices, including how they respond to “do not track” requests.
ACTIVITY

• Teams of 3-4
• You are trying to sell a product online:
  • What product are you selling?
  • Where would you want to place an ad? What types of websites?
  • Who are you targeting? Who are your customers?
  • What information do you want about your users in order to target your ad to them?
  • Which of those pieces of information can you track in a cookie?

• Prepare to share with the class in 10mins