# Online Tracking and Targeted Ads

**Carnegie Mellon University** 

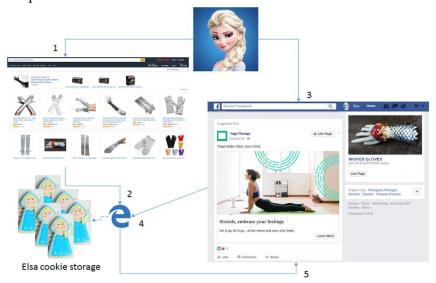
2018 Data Privacy Day

### How does this work?

Elsa and Her Gloves

When Elsa searched her favorite online shop for silver gloves with red rubies (1) an Elsa-related cookie was set and stored in her browser (2) together with all other Elsa-related cookies. The next day, when she went on Facebook, it requested from her browser

all relevant Elsa-related cookies (3). The "silver gloves with red rubies" cookie was deemed relevant, and so it was replayed (4) on Facebook, leading to the targeted ad about "Wicked gloves" (5).



Cookie: information saved by your browser. It can be used for ads as well as for user experience (e.g. saved logins, shopping carts, etc.)

Device Fingerprinting: identifies a browser uniquely based on its configurations and settings. This is cookie-less!

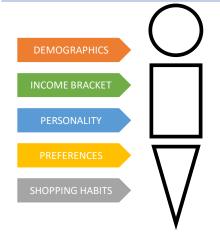
Web Beacon: normally an invisible image used to monitor online behavior (e.g. if an email has been visualized or not). Often used with cookies.

# What is online tracking and targeted ads?

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Advertising companies use several techniques, like cookies, device fingerprinting and web beacons, to learn about you and your activities online, and then sell this information to other companies who want to target specific people for their products.

Targeted ads, ads tailored to users' individual interests, are an example of how online tracking is commonly used.



## What can I do?

#### Learn What They Know

Some companies give you access to the information they have learned about you (i.e., user profile). For example, Google allows you to review and manage your personal information at My Account > Personal info & privacy (https://myaccount.google.com/privacy) and Facebook at Settings > Ads > Ads based on my preferences (https://www.facebook.com/ads/preferences/). Oracle lets you see the information and categories they have of you and opt-out of its Data Cloud Registry on https://bluekai.com/registry/.

Fun fact: on the Facebook link check Lifestyle and Culture > US Politics. You were classified based on pages you liked!

#### Limit Tracking

If you want to limit tracking, you can use a few **browser add-ons**, also known as browser extensions or plugins. You can also **manage your browser settings** to **reject third-party cookies**, **enable Do-Not-Track headers**, **clear all your browser cookies**, and **use private browsing**, also known as incognito mode.

#### Opt-out of Targeted Advertising

Most advertising companies allow you to opt out of targeted ads. By opting out you will not necessary stop ad companies from tracking your online activities, but they will not show you ads based on your browsing habits. Also note that after opting out **you will keep receiving ads from that ad company, but those ads will not be tailored to you**. You will still receive targeted ads from other ad companies from which you have not opted out.

There are webpages that allow you to opt out of more than one company at once. The table below describes these webpages and the steps to opt out through them.

#### How to opt out? **Page Description** 1. Visit: http://www.aboutads.info/choices/ 2. Wait for the automatic request process. Digital Advertising Alliance (DAA) Opt-Out Page. 3. Select the companies from which you want to opt Allow Internet Users to Opt Out of Advertising out or check the Select All Shown box Companies affiliated with the DAA. 4. Scroll down the page and click the Submit your choices button Network Advertising Alliance (NAI) Opt-Out 1. Visit: Page. Allow Users to Opt Out of Advertising http://www.networkadvertising.org/choices/ Network Advertising initiative Companies affiliated with NAI. Note that 2. Select "Manage My Browser's Opt Outs" companies affiliated with NAI may or may not 3. Select the companies from which you want to opt have affiliations with the DAA, and vice versa. out or check the Select all box Therefore, we recommend you to visit both the 4. Scroll down the page and click the Submit your NAI and DAA opt-out pages. choices button Note: The opt-out mechanism is based on cookies. You will have to refresh your opt-outs every time you clean your browser cookies. If you use more than one browser or computer, you will need to opt out for each of them.