

Online Tracking and Targeted Ads

Carnegie Mellon University

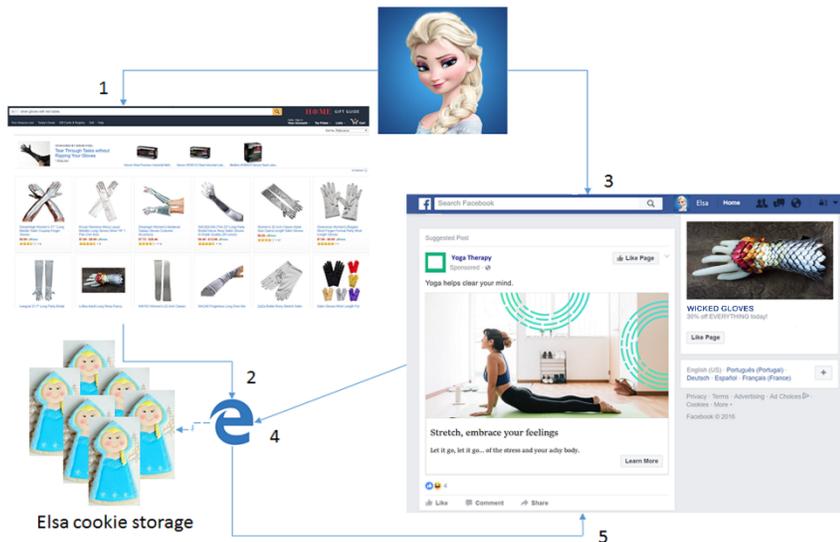
2017 Data Privacy Day

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).



What is online tracking and targeted ads?

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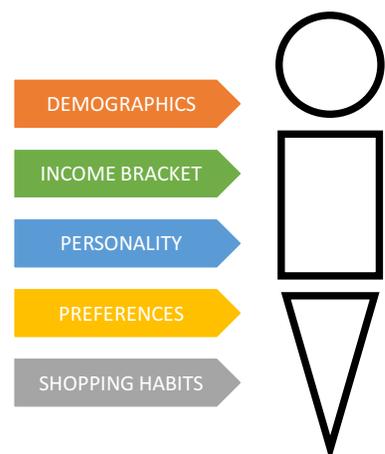
Advertising companies use several techniques, like **cookies**, **device fingerprinting** and **web beacons**, to learn about you and your activities online, and then sell this information to other companies who want to target specific people for their products.

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

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 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/>).

Fun fact: on the Facebook link check Lifestyle and Culture > US Politics. You've been classified based on pages you've 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.

Page Description	How to opt out?
 Digital Advertising Alliance (DAA) Opt-Out Page. Allow Internet Users to Opt Out of Advertising Companies affiliated with the DAA.	<ol style="list-style-type: none">1. Visit: http://www.aboutads.info/choices/2. Click on the All Participating Companies tab3. Select the companies from which you want to opt out or check the Select All Shown box4. Scroll down the page and click the Submit your choices button
 Network Advertising Alliance (NAI) Opt-Out Page. Allow Users to Opt Out of Advertising Companies affiliated with NAI. Note that companies affiliated with NAI may or may not have affiliations with the DAA, and vice versa. Therefore, we recommend you to visit both the NAI and DAA opt-out pages.	<ol style="list-style-type: none">1. Visit: http://www.networkadvertising.org/choices/2. Close the Status Check Complete Window3. Click on the All NAI Members tab4. Select the companies from which you want to opt out or check the Select all box5. Scroll down the page and click the Submit your choices button
<p>Note: Since the opt-out mechanism is based on cookies, you will have to refresh your opt-outs every time you clean your browser cookies. Also, if you use more than one browser or computer, you will need to opt out using each of them.</p>	