Supercookies

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What is a cookie?

- A cookie is a small piece of data downloaded to a user's machine when visiting a website.

- They store information such as the items in a shopping cart, or whether a user is logged in.

- Third-party cookies can be used to follow you around the internet and report your information back to other companies, especially for marketing purposes.

- Since people are now able to remove regular cookies, some companies have begun using 'supercookies'.

What is a supercookie?

SUPERCOOKIE?

- Regular cookies can be blocked, or easily removed by clearing browsing data - supercookies can not.
- Not stored in your browser, but rather injected at the network level.
- Can uniquely identify each device used and track the users' habits and internet history.
- Supercookies can share information across websites, unlike regular cookies.
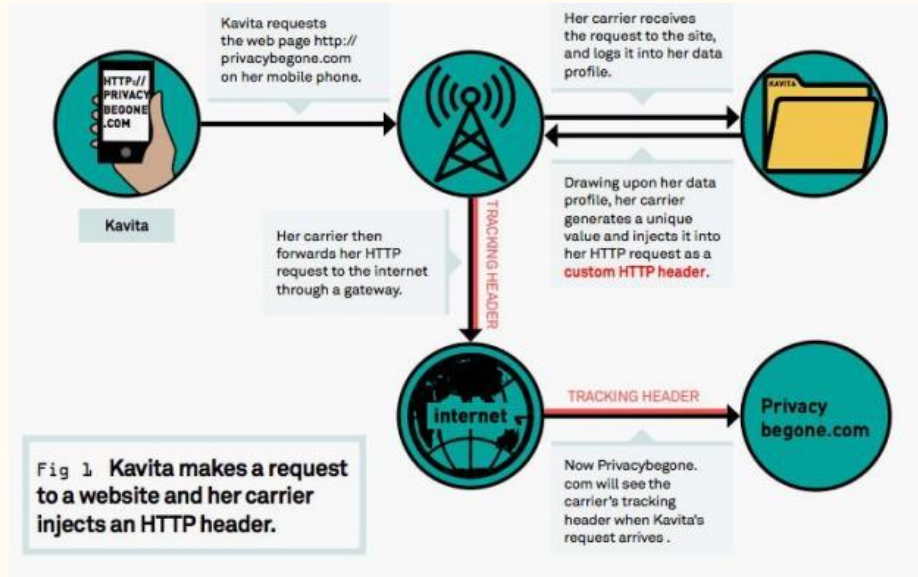
Zombie Cookie / Ever Cookie

- Zombie cookie is a type of regular cookie that reappears after deletion.
- Zombie cookies may include supercookies to resurrect.
- Evercookie is an example of a javascript application creating zombie cookie, created by Sam Kamkar

Types of Supercookies

- Unique Identifier Header (UIDH).

- Unique key (utilizing many browser's caching)

    - Image hack

    - HSTS attack

- Font fingerprinting

- Flash cookies

Kavita requests the web page http:// privacybegone.com on her mobile phone.

Her carrier receives the request to the site, and logs it into her data profile.

Drawing upon her data profile, her carrier generates a unique value and injects it into her HTTP request as a custom HTTP header.

Her carrier then forwards her HTTP request to the internet through a gateway.

Kavita

TRACKING HEADER

TRACKING HEADER

internet

Privacy begone.com

Now Privacybegone. com will see the carrier's tracking header when Kavita's request arrives.

Fig 1 **Kavita makes a request to a website and her carrier injects an HTTP header.**

Who Does This?

Why Should I Care?

- Creates the potential for a huge privacy violation.

- Supercookies store a lot of information about users. A data breach could expose the internet history tied to your device.

- Anyone using the internet should be aware of their rights and anything that may be infringing on them, especially when it comes to privacy.

- Users should be able to make conscious decisions about what they share or don't share with third parties.