

Browsers and other useful software (Part 1)



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What is a browser?

- **A program**
- **Reads text somewhere on the web**
 - **HTML (Hypertext Markup Language)**
 - **Javascript**
 - **Many others (pHp, Python, etc)**
- **Interprets it and displays that to you.**
 - **Might involve downloading or installing code (Flash, extensions, Silverlight, etc.)**
- **Allows interaction**
 - **Text inputs**
 - **Clicks**
 - **Hyperlinks**

Main website pieces

- **“Cookies” to remember things (stored on your machine)**
 - This is how “Remember who I am” works when logging in.
 - Also, one of the ways information about what you’ve looked at is passed around for ads
- **Ads**
 - Images, videos
- **Content**
 - Text, images, videos
- **Fields to type into**
- **“Capcha”**
 - To prove you’re human (i.e. not a robot)

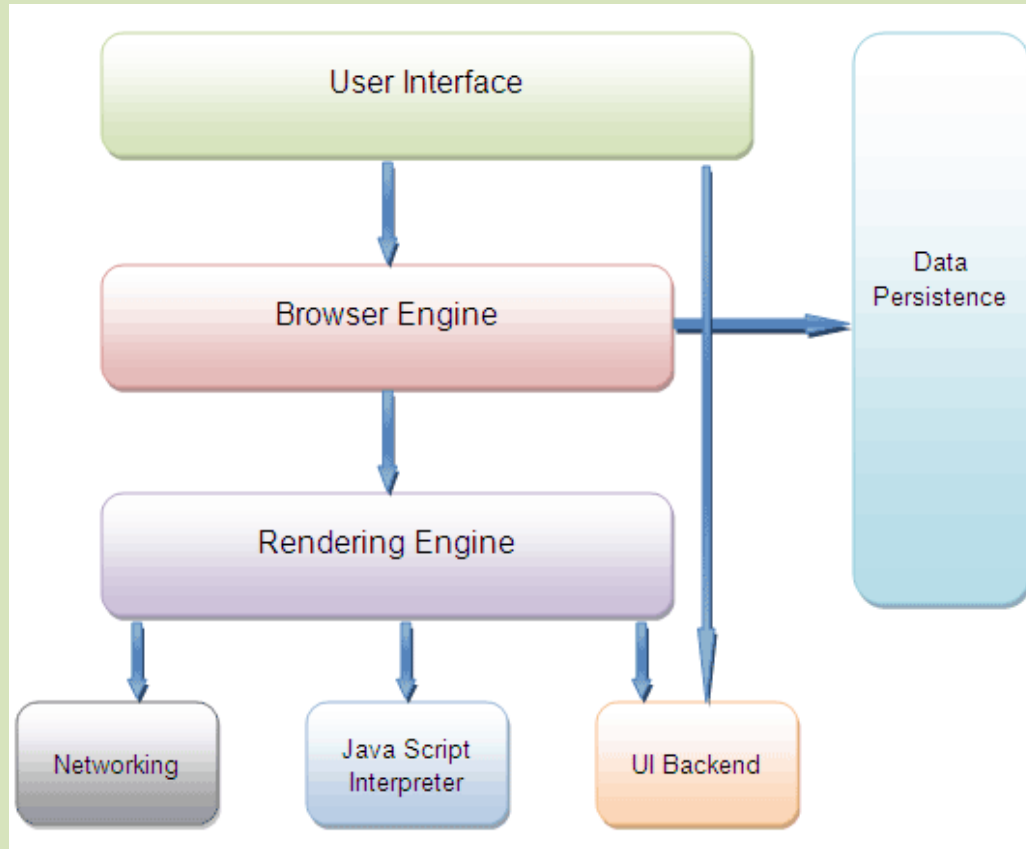
Which Browser, and why does it matter

- **Browsers interpret websites, show them to you, and allow you to interact with them.**
 - **Compatibility**
 - **Load Times**
 - **Security**
 - **User Interface**
 - **Configurability**

Browser Engines

- **Two main browser engines – Each has browsers based on their engines**
 - **Firefox/Gecko**
 - **Mozilla Firefox**
 - **Waterfox**
 - **LibreWolf**
 - **Ghostery**
 - **Tor**
 - **Chromium/Blink/WebKit**
 - **Microsoft Edge**
 - **Google Chrome**
 - **Brave**
 - **Opera**
 - **Vivaldi**
 - **Arc**
 - **WebKit2**
 - **Safari**
 - **DuckDuckGo**

How does it work



Rendering Engine –

typically WebKit (Apple) or Blink (Chromium) or Gecko (Firefox)

User Interface is the main difference between Browsers

Data Persistence = cookies

Decisions, decisions

Browser	Engine	Open Source	Ram	Ads	Telemetry	Extensions	Platforms
Firefox	Firefox	Y	8	0	Optional	10	WML/AI
LibreWolf	Firefox	Y	8	8	N	10	WML
Brave	Chromium	Y	4	8	Y	9	WML/AI
Ghostery	Chromium	Y	8	8	?	10	WML/AI
Chrome	Chromium	N	4	0	Y	10	WML/AI
Edge	Chromium	N	2	4	Y	10	WML/AI
Opera	Chromium	N	8	8	Y	5	WML/AI
Vivaldi	Chromium	N	8	4	Y	10	WML/AI
DuckDuckGo	Chromium/ Webkit	Partial	10	4	N	10	WM/AI
Thorium	Chromium	Y	6	0	Y	10	WML/A
Arc	Chromium	N	8	8	Y	10	WM/I
Safari	WebKit/ Proprietary	N	10	0	Y	7	M/I

Higher is better for Ram and Extensions

N is preferred for Telemetry

W (Windows) M (Mac) L (Linux) A (Android) I (iPhone)

NOTE: Ghostery has an ad-blocking extension for most other browsers

Using Browsers

- **You can install multiple browsers.**
 - **Install, check it out, and remove it if you don't like it.**
- **Typically a good idea to have a “Firefox”-ish browser and a “Chrome”-ish browser, plus OS built-in browser.**
 - **e.g. Brave and Ghostery (my favorites), as well as the OS built-in browser (Safari or Edge)**
 - **This allows you to switch browsers if a website has compatibility issues with one of them.**
- **Using multiple browsers is why a password manager is better than the browsers built-in password feature.**
- **Keeping bookmarks in sync is the biggest headache with multiple browsers.**
 - **Most browsers can import from other browsers bookmarks.**
- **Configure your home page and search engine**

Using Browsers

- **Use extension sparingly – Password manager and ad blockers are probably the only two.**
- **Shopping extensions are privacy nightmares.**
- **Keep your browser UP TO DATE!**
- **Use Private Web Browser to keep browser from saving information about websites.**

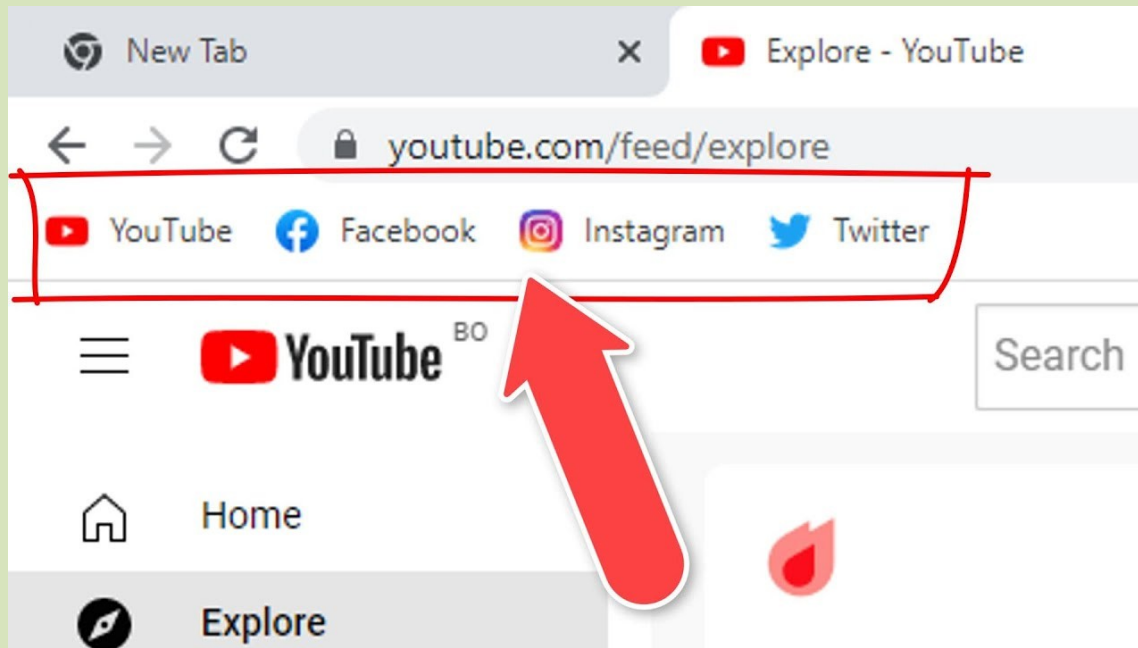
Configuring Browsers - Security

- **Trusted Sites**
- **Restricted Sites**
- **Javascript**
 - **Disable except for sites you trust that need it**
- **Java**
- **Plugins**

Configuring Browsers

- **“Sync” feature – disable.**
- **Phishing and malware protection – Enable!**
- **Instant search – turn it off**
- **Popup windows – disallow them!**
- **Cookies**
 - **Typically want “Block 3rd-party cookies & data”**
- **Location**
 - **Don’t allow sites to track my location (more important for laptops and phones)**
- **Password and forms – disable.**
 - **Use your password manager instead**
- **Use a private search engine**
 - **DuckDuckGo, Brave, Ghostery**

Bookmark bars



- **Bookmark bars are a convenient way to get to your favorite websites**

More Information

- **Browser download sites to download browser**
- **Google the browser and choose the result with a URL with the browser name in it.**
 - **Arc.net, brave.com, thorium.rocks, librewolf.net, ghostery.com, vivaldi.com, duckduckgo.com**
 - **Mozilla.com/en-US/firefox (Mozilla is the org that owns firefox)**
- **Compare two browsers by searching “A” vs “B”**
- **Spreadsheet of features (techy)**
 - **<https://docs.google.com/spreadsheets/d/1JqygIRJXzxaj8OcQw9jHabxFUdsv9iWJXMPXcL7On0M/edit?gid=1628450822#gid=1628450822>**