

where did you go today?

on web and tracking

Outline

- WWW
- Browsers
- Cookies
- Tracking & Profiling
- Browser Fingerprinting
- Privacy Extensions

World Wide Web

- Invented in 1991 at CERN, Switzerland
- WWW \approx HTML + HTTP
 - **HTML**: HyperText Markup Language
 - Web pages are written in HTML
 - Hypertext means **beyond text**
 - Text + Sound + Image + Links + Submission Forms etc.
 - **HTTP**: Hypertext Transfer Protocol
 - Regulates the access and distribution of web pages

Web
made it possible to
display,
text,
image and
links
together in the same
page:

multi
media

The image shows a screenshot of the National Center for Supercomputing Applications (NCSA) website as viewed in the Mosaic web browser. The browser window title is "National Center for Supercomputing Applications at the Universit - NCSA Mosaic". The address bar shows "http://www.ncsa.uiuc.edu". The website layout includes a navigation menu with links for "ABOUT", "PROJECTS", "USER INFO", and "NEWS". A search bar is located below the menu. The main content area features a large banner for "WAR through the pages" with the text "NCSA aids a collaborative effort to preserve and digitize Spanish Civil War history." and a "read more" link. Below the banner is a section for "NSF" (National Science Foundation) with the headline "National Science Board endorses NCSA petascale proposal" and a "Read more" link. The bottom of the page contains a "SUBSCRIBE TO NCSA NEWS" section with an "RSS feed" link and a "Monthly newsletter" link, and an "UPCOMING EVENTS" section with a "Full calendar of upcoming events" link. The browser's status bar at the bottom shows the date and time: "Sun 21.09.2007 9:41:59".

Internet was there before Web

- BBS (1978)
- USENET (1979)
- FTP (1971)
- E-mail (1971)
- Gopher (1991)

...



Internet before Web: Gopher

Home Gopher server: gopherproject.org

THE GOPHER PROJECT

Welcome to GOPHER! Gopher is a slim, powerful, and fast way to present information in a hierarchical catalog online. Gopher actually predates the Web -- although most web browsers make excellent gopher browsers too.

Good places to start are the "Why Gopher?" and "Using Gopher" areas!

- > [12] *** GOPHER TURNS 10 / GOPHER 3.0 (FurryTerror) RELEASED ***
- [13] *** GOPHER TURNS 10 ..R 3.0 (FurryTerror) RELEASED *** [html] <HTML>
- [14] A Brief Introduction to Gopherspace
- [15] Clients, Servers, and Downloads/
- [16] Home Gopher at UMN (a good place to browse)/
- [17] Home Gopher at UMN [alternate]/
- [18] Mailing List
- [19] Mailing List Archives/
- [20] Major Gopher Servers/
- [21] Screenshots/



www.tranquileye.com



http://sixrevisions.com/web_design/popular-search-engines-in-the-90s-then-and-now/

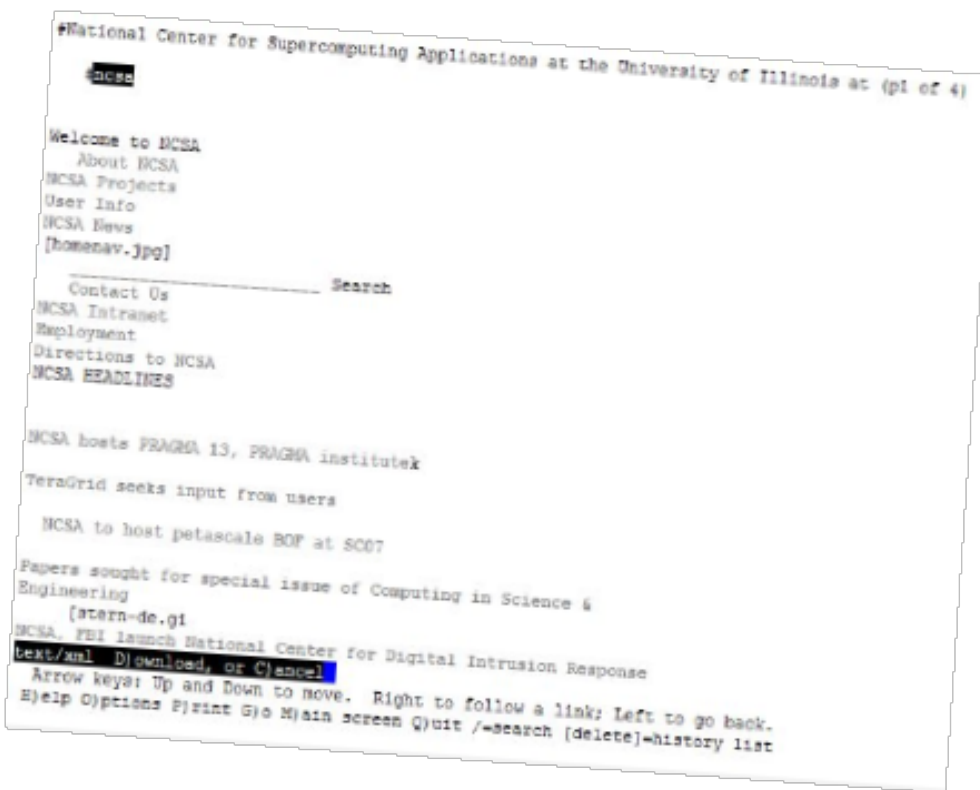
Web Browsers

- used to access, retrieve and display web pages
- gateway to Web



Mozilla
Firefox

Old Browsers



Lynx (text based)



Mosaic (first browser with a GUI)

Modern Browsers



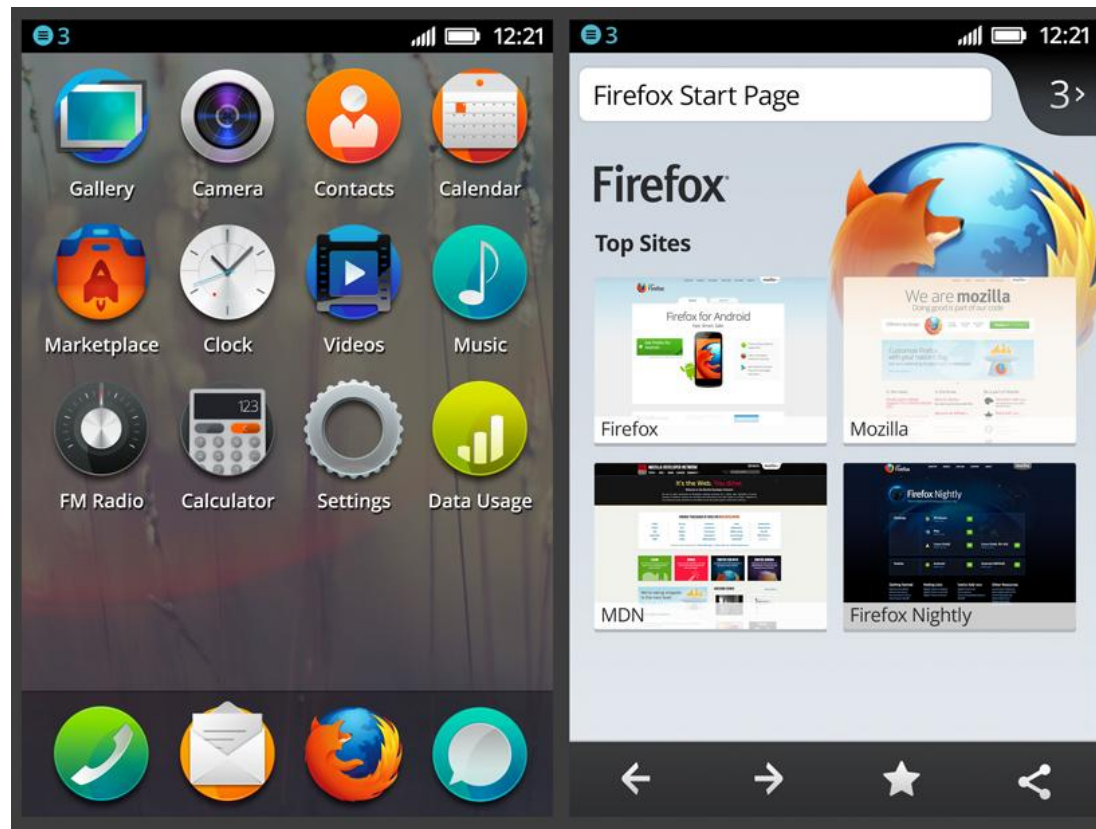
Google Chrome



Internet Explorer

Browser as platform

- RIA (Google Docs, MS Office Web apps)
- Moving apps to Web
- Moving OS to Web (FirefoxOS, ChromeOS)



Browsers, cookies and tracking

- Developer Tools
- Cookies
- Scripts
- <http://netograph.com/>

How Target Figured Out A Teen Girl Was Pregnant Before Her Father Did

English: Logo of Target, US-based retail chain



308 comments, 167 called-out

[+ Comment Now](#) [+ Follow Comments](#)

Every time you go shopping, you share intimate details about your consumption patterns with retailers. And many of those retailers are studying those details to figure out what you like, what you need, and which coupons are most likely to make you happy. [Target](#), for example, has figured out how to data-mine its way into your womb, to figure out whether you have a baby on the way long before you need to start buying diapers.

Charles Duhigg outlines in the [New York Times](#)



TARGET

Fingerprinting

- [Panoptlick](#)
- [BrowserSpy](#)
-

Privacy Extensions

- Ghostery
- Adblock
- NoScript
- TOR browser