

The Dramatic History of the Web Browser



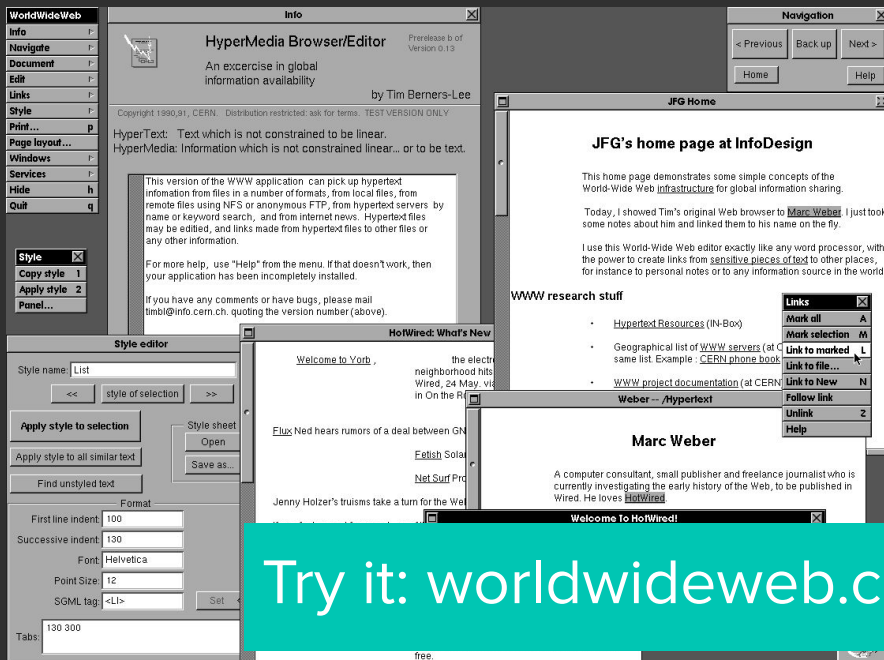
Andy Carter

andy-carter.com | [@drmonkeyninja](https://twitter.com/drmonkeyninja)

dotNet Sheffield - Feb 2020

1990

Tim Berners-Lee invents the World Wide Web and creates the **WorldWideWeb** browser.



Beginnings

Try it: worldwideweb.cern.ch

1993

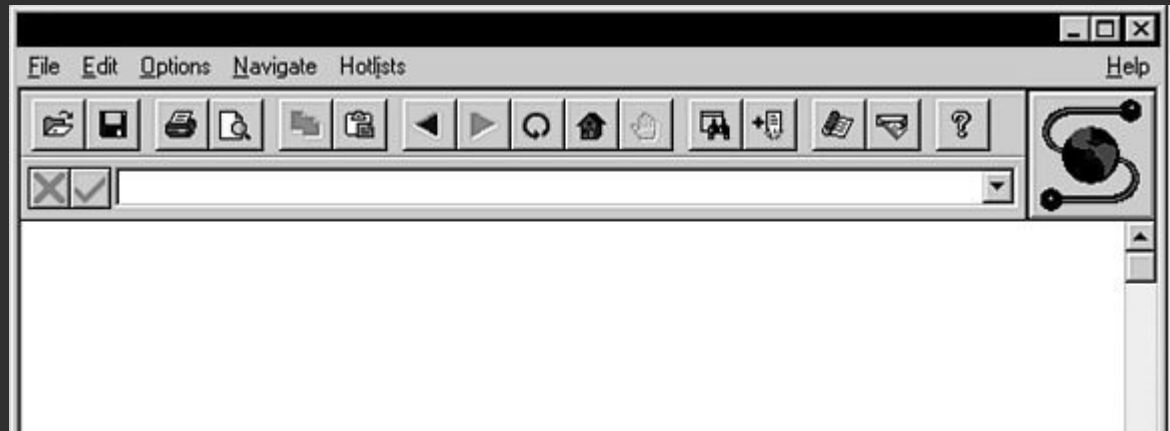


Beginnings

National Center for Supercomputing Applications (NCSA) release **Mosaic**.

Mosaic introduces ability to embed images in a web page.

It works across multiple platforms.



1994

The Mosaic Communications Corporation founded by Jim Clark and Marc Andreessen.

Beginnings

1994



Beginnings

The Mosaic Communications Corporation founded by Jim Clark and Marc Andreessen.

The company had to be renamed and became Netscape Communications Corporation.

Netscape Navigator released.

It overtook Mosaic as the most popular browser.

1995

Spyglass license codebase based on Mosaic.

Beginnings

1995

Spyglass license codebase based on Mosaic.

Microsoft release **Internet Explorer**.

IE made freely available to all Windows users.

Mac and UNIX versions follow in 1996.

Beginnings

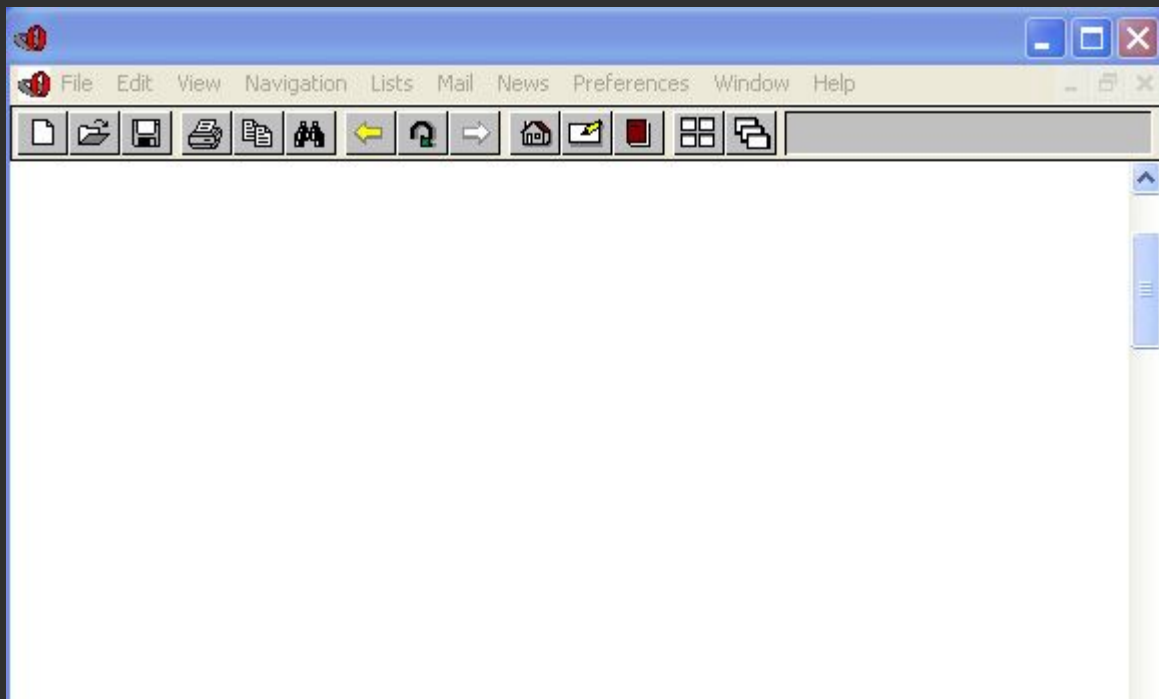
1996



Beginnings

Opera released as trialware.

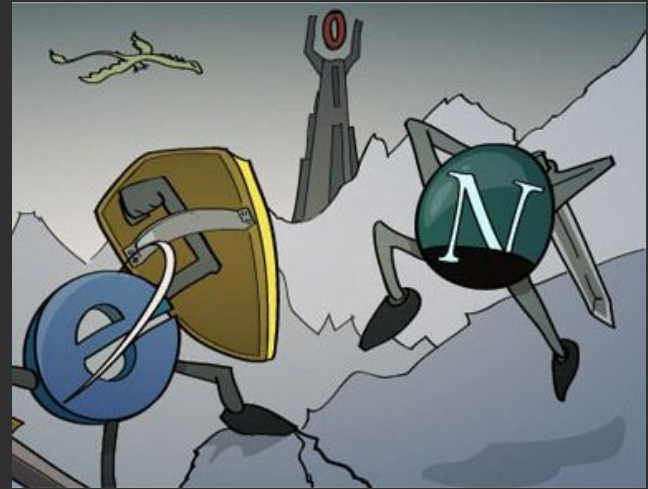
Opera / опера / オペラ / Opéra



The Browser War

1996 4 in 5 use Netscape.

Microsoft moves to change this.



Works best in...

Netscape gives us `<blink>` while IE introduces `<marquee>`.

IE adds CSS support, while Netscape develop JSSS.

1997

October

Internet Explorer 4 released.

“From the IE team... We Love You”

The Browser War

1997

October



The Browser War

Netscape 72, Microsoft 18

1997

Spyglass threaten Microsoft with a contractual audit.

Microsoft are only paying the minimum quarterly fee to Spyglass.

Microsoft switch to Trident as part of Internet Explorer 4 and give Spyglass \$8M.

The Browser War

Explorer becomes faster and more stable than Navigator.

Microsoft start bundling Explorer with Windows.

1998 United States v. Microsoft Corporation lawsuit.

2001

9 in 10 browsers now Internet Explorer.

The Browser War

2001

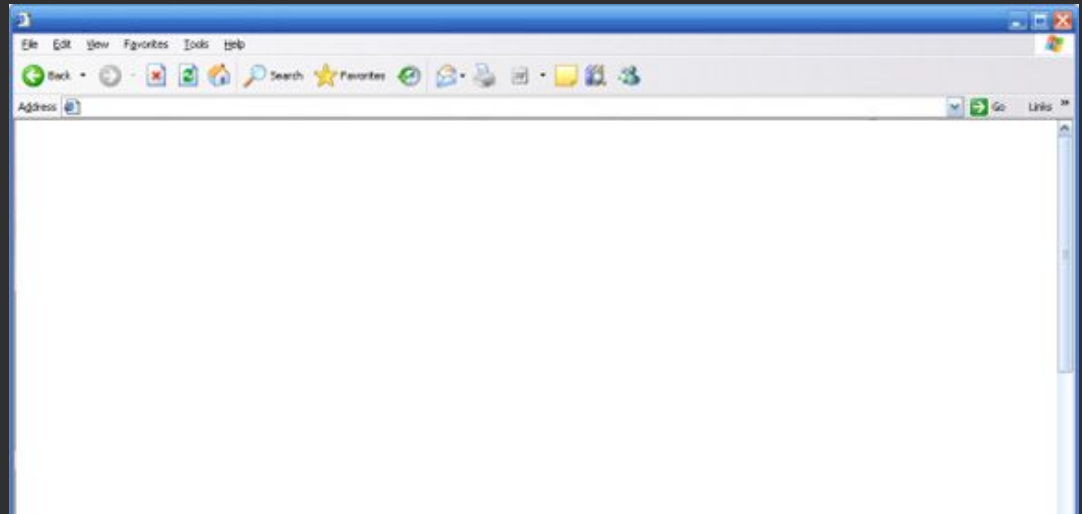


The Browser War

9 in 10 browsers now Internet Explorer.

Microsoft release **Internet Explorer 6**.

IE would go on to dominate for years and stifle innovation.



End of an Era

Netscape lost the war to Microsoft.

AOL bought Netscape in 1998 and ended development of the browser 10 years later.

Netscape gave us many things including: JavaScript, animated GIFs and Cookies.

New Beginnings

In 1998 Netscape
open-source much of their
code.

Mozilla is founded.

Start of the open web
ecosystem.

2000



New Beginnings

KDE release **Konqueror** for Linux.

Konqueror uses the open-source KHTML rendering engine.

More standards compliant than Navigator and Internet Explorer.



2003

Apple release Safari and WebKit.

WebKit is a fork of KHTML.



New Beginnings

Apple Amazon eBay Yahoo! News

HELPSCREEN CATEGORIES
Home
.NET
Bugs & Fixes
Digital Music
Games
Hardware
Linux
Mac
Networking
Novice
Office Apps
Office XP
Other
Processors
The Internet
Virus
Windows 2000
Windows 9x
Windows XP

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How HelpScreen Works
Disclaimer
IDG Online Contacts

Welcome to PC World
http://www.pcworld.idg.com.au/

Microsoft lets governments review windows code 16/01/2003 11:15:59
Microsoft Corp. will give governments and international organizations access to the programming code underlying several versions of its Windows operating system to allay security concerns, the company announced Tuesday.

- MIT: Discarded drives yield private info
- Windows offers educators flat-rate deal

Print Edition

PC World February 2003
In the February 2003 issue of PC World, available now: Cheap champs – Great PC accessories for next to nothing; Faster for free – Slick tips and tools to get more from your megahertz; Server buying guide; Full exposure – Top 10 digital cameras; Web and You – World class sites: focus on education; Best Buys reviews of PCs and Notebooks.

PLUS on the CDs:
Free full version – Uninstaller 2000 Version 2 SE; Free full version – CAD Standard Lite 3.57; Free Utilities and Diagnostic software; Antispam toolkit; 20 free and complete e-books; Summer video special, part 2. br>

[NEW Best Buys section – Sweet Spot. Click here for more details](#)

.Net

Windows CE update set for mid-2003 release
SUMNER LEMON
The next update to Microsoft Corp.'s Windows CE .Net OS (operating system), which has been given the code name McKendric, will ship before the middle of 2003 and include several new features, a company executive said at the Microsoft Embedded DevCon 2003 conference being held in Taiwan.

Microsoft continues Windows Server name game 10/01/2003 09:48:58
SES gets Unique site solution 09/01/2003 09:47:06
Microsoft rolls out ISA Server Feature Pack 1 08/01/2003 11:41:11
Microsoft updates Windows Media Player 09/01/2003 08:18:43

Quickpoll
Does PC security concern you?
 Yes - I run a personal firewall
 Yes - but I haven't done anything about it!
 No
Vote Here
View Results

Search
Stories from ... the last month
That are ... of any type
Limit results to ... 10
With the keyword(s)
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PC World Minibooks
The PC World Mac OSX Minibook is now available!
This Minibook will help you get your head around key concepts involved in using OS X as well as discovering the benefits of its Unix core. This full-colour, 128-page book includes step-by-step instructions, guides and special tips to help you learn at your own pace. A CD with over 600MB of software is also included.
Click Here to buy it online.
International orders are welcome

The Next Browser War?



2004



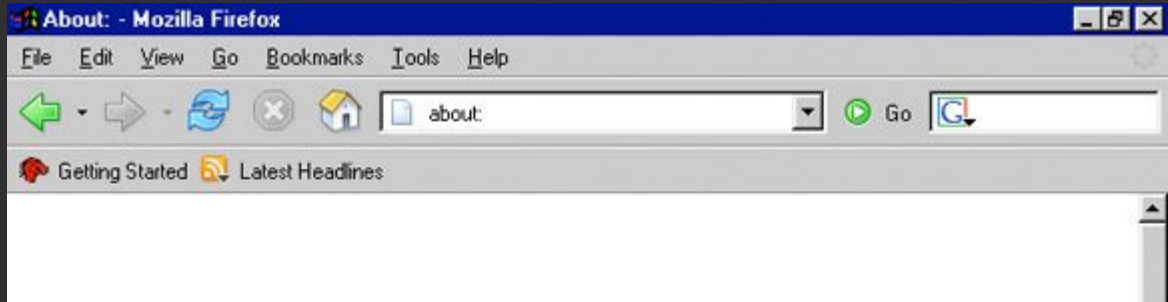
The Next
Browser War?

Mozilla release **Firefox**.

Spread Firefox.

100 million downloads in the first year.

Firefox popularised tabbed browsing
and gave us developer tools thanks to
Firebug.



2006

About 85% of people still using Internet Explorer. Firefox accounts for about 10%.

The Next
Browser War?

2006

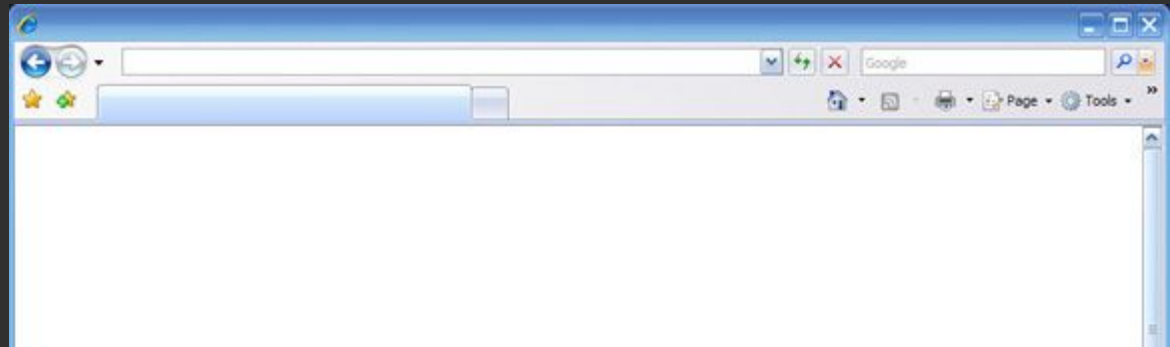


The Next
Browser War?

About 85% of people still using Internet Explorer. Firefox accounts for about 10%.

Microsoft release **Internet Explorer 7**.

Introduces features common to rivals like tabs and search.



2006



The Next
Browser War?

Google release **Chrome**.

Google CEO Eric Schmidt was originally opposed to a Google browser.

Sergey Brin and Larry Page hire some Mozilla developers.

“It was so good that it essentially forced me to change my mind” - Schmidt.

2006



The Next Browser War?

Google Chrome
Behind the Open Source Browser Project

Today, most of what we use the web for on a day-to-day basis aren't just web pages, they're applications.

Brian Rakowski, Product Manager

People are watching and uploading videos, chatting with each other, playing web-based games... All these things that didn't exist when the first browsers were created.

Azula88: ROFL
DctHrbl: LOL
Trg: OMFG

Wouldn't it be great, then, to start from scratch --

-- and design something based on the needs of today's web applications and today's users?

2008

1

Comic strip description: The comic is set within a Google Chrome browser window. Brian Rakowski, Product Manager, is shown in a speech bubble discussing the shift from web pages to web applications. Pam Greene, Software Engineer, is shown in a speech bubble discussing the need for browsers to support modern web-based activities like video and chat. The comic ends with a question about starting from scratch and designing for modern users, with a timeline marker for 2008.

AS EXCITED AS WE ARE ABOUT BUILDING GOOGLE CHROME, IT'S IMPORTANT TO HELP ALL BROWSERS BECOME MORE POWERFUL --

-- TO KEEP EVOLVING WITH THE WEB AND CONTINUING TO BUILD A SOLID FOUNDATION FOR MODERN WEB APPLICATIONS.

USER
SAND BOX

WEBKIT

PROCESS

PROCESS

PROCESS

PROCESS

PROCESS

WE OWE A GREAT DEBT TO OTHER OPEN SOURCE BROWSER PROJECTS -- ESPECIALLY, MOZILLA AND WEBKIT.

THIS IS OUR CONTRIBUTION, AND WE HOPE PEOPLE WILL TAKE SOME OF THESE IDEAS, TOO; CHALLENGE THEM, BUILD ON THEM, AND KEEP MOVING THE WEB FORWARD.

38

Diagram description: This diagram illustrates the browser architecture and development process. It shows a user interacting with a browser window containing WebKit. The browser is connected to a network and various processes. A central figure is surrounded by gears, representing the contribution of open-source projects like Mozilla and WebKit. The diagram emphasizes the importance of building a solid foundation for modern web applications.

2006



The Next Browser War?

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PEOPLE ARE WATCHING AND UPLOADING VIDEOS, CHATTING WITH EACH OTHER, PLAYING WEB-BASED GAMES... ALL THESE THINGS THAT DIDN'T EXIST WHEN THE FIRST BROWSERS WERE CREATED.

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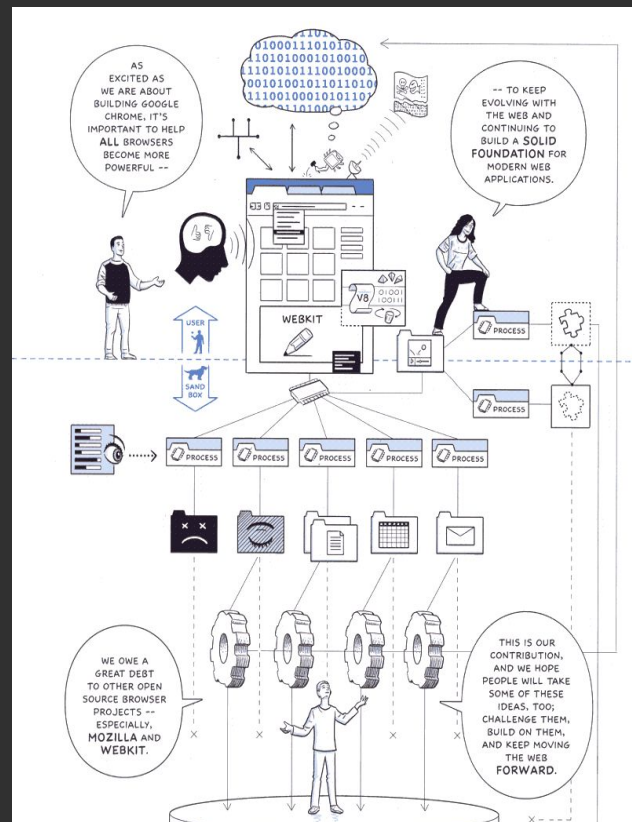
WOULDN'T IT BE GREAT, THEN, TO START FROM SCRATCH --

-- AND DESIGN SOMETHING BASED ON THE NEEDS OF TODAY'S WEB APPLICATIONS AND TODAY'S USERS?

Pam Greene, Software Engineer

2008

This panel shows a Google Chrome browser window with a navigation bar and a chat window. Brian Rakowski, Product Manager, is speaking about the shift from web pages to web applications. Pam Greene, Software Engineer, is discussing the need for a browser that can handle modern web-based activities like video uploading and chat. A timeline at the bottom indicates the year 2008.



Google release Chromium

Blink

By 2013...

35% Google Chrome

23% Internet Explorer

17% Firefox

11% Safari

gs.statcounter.com

2013

Google Chrome/Chromium forks WebKit as Blink.

We start to see other new browsers developed on Chromium, including: **Brave** (2016), **Samsung Internet** (2013) and **Vivaldi** (2015).

Blink

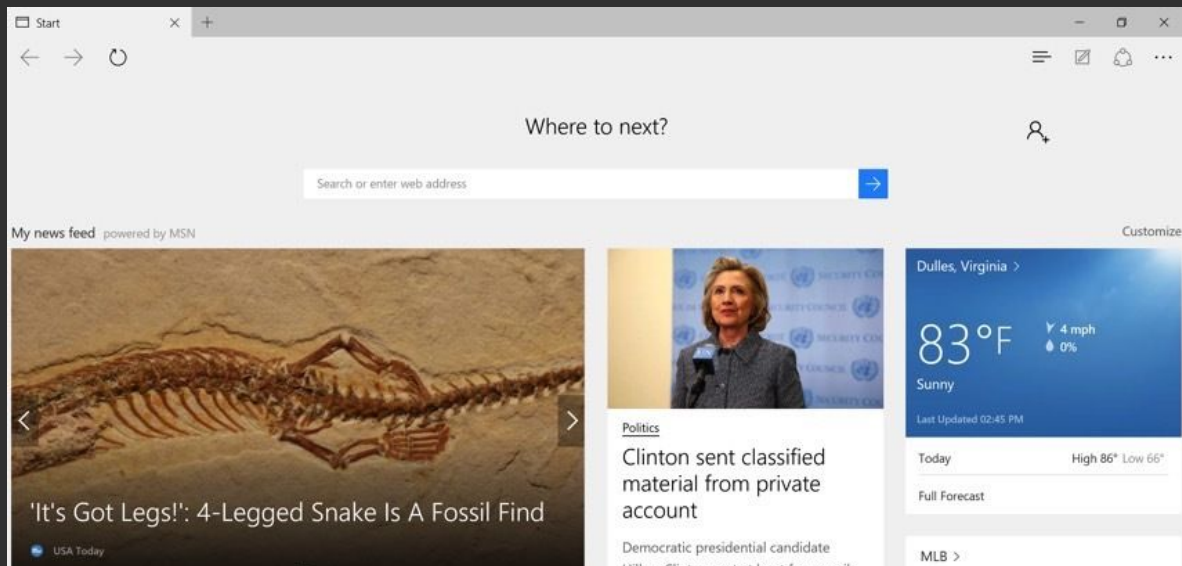
2015



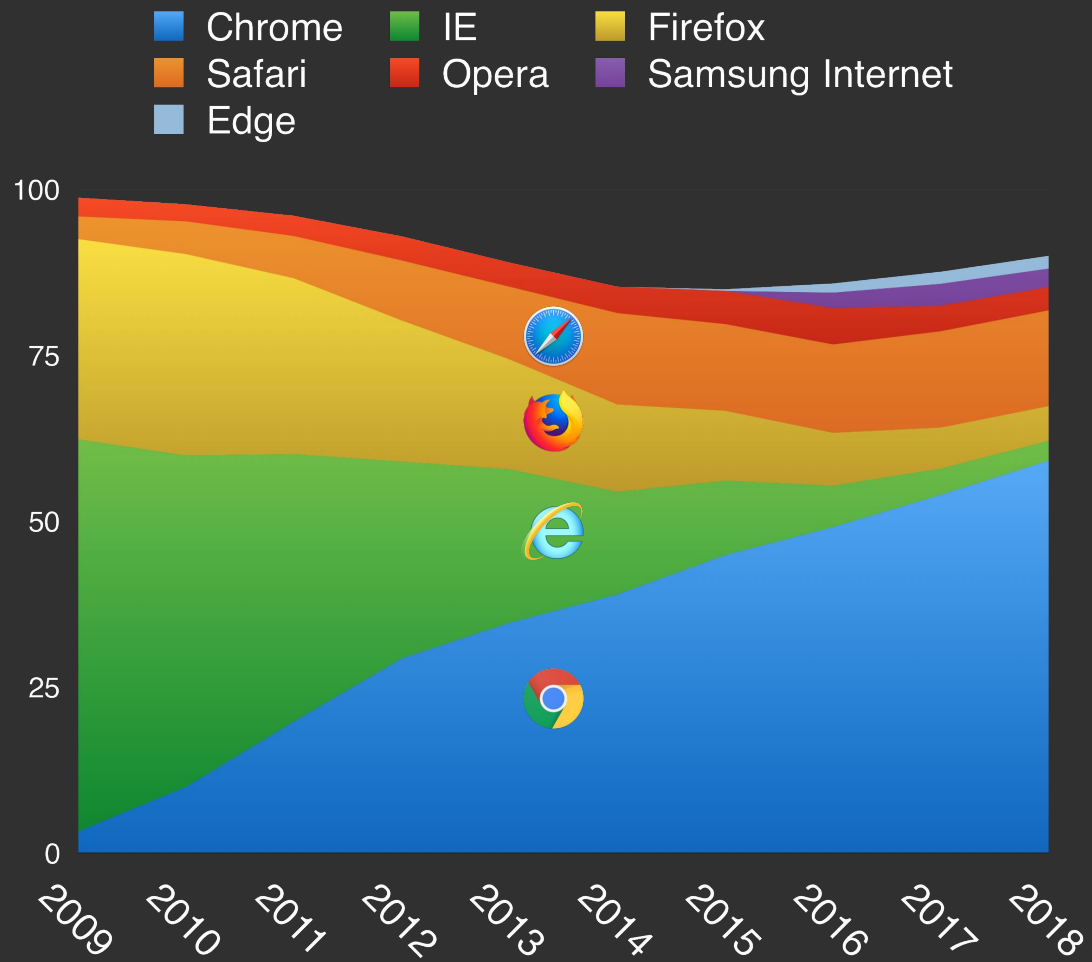
Blink

Microsoft release **Edge**.

Edge uses EdgeHTML, a fork of the Trident rendering engine.



Blink



2020



Blink

2018 Microsoft announce they are building a new **Edge** browser using Chromium.

It was officially released on January 15th 2020 for Windows and MacOS.

2020



Blink

2018 Microsoft announce they are building a new **Edge** browser using Chromium.

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2020 marks the 30th anniversary of the first web browser, **WorldWideWeb**.

The Future

History has a tendency to repeat itself.

Google Chrome's market share may now have peaked. Chromium browsers remain dominant.

Privacy is becoming a growing concern for web users, many are now looking for alternatives to Google.

The Future



THIS IS A

Private Window

Brave doesn't remember what you do in a Private Window. Sites you visit won't show up in your history, and cookies vanish when you're done. Private Windows don't make you completely anonymous online, though. [Learn more](#)

“Nevertheless, we believe that having multiple rendering engines—similar to having multiple browsers—will spur innovation and over time improve the health of the entire open web ecosystem.”

Adam Barth, Chromium Software Engineer

<https://blog.chromium.org/2013/04/blink-rendering-engine-for-chromium.html>

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