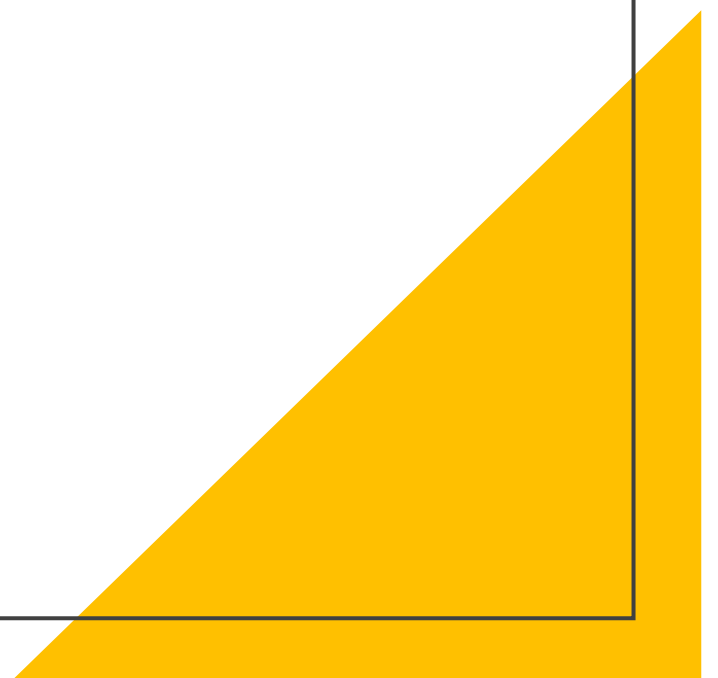


Web Browser – History, Concepts, Market

A presentation to the seminar paper of Alwin Krycha-Weilinger



Content

- History and Development of Web Browser
 - WorldWideWeb
 - Mosaic
 - Netscape Navigator
 - Internet Explorer
 - Browser Wars
 - Mozilla Firefox
 - Opera
 - Safari
 - Google Chrome
 - Microsoft Edge
- Browser Market and Trends



History and Development of Web Browser



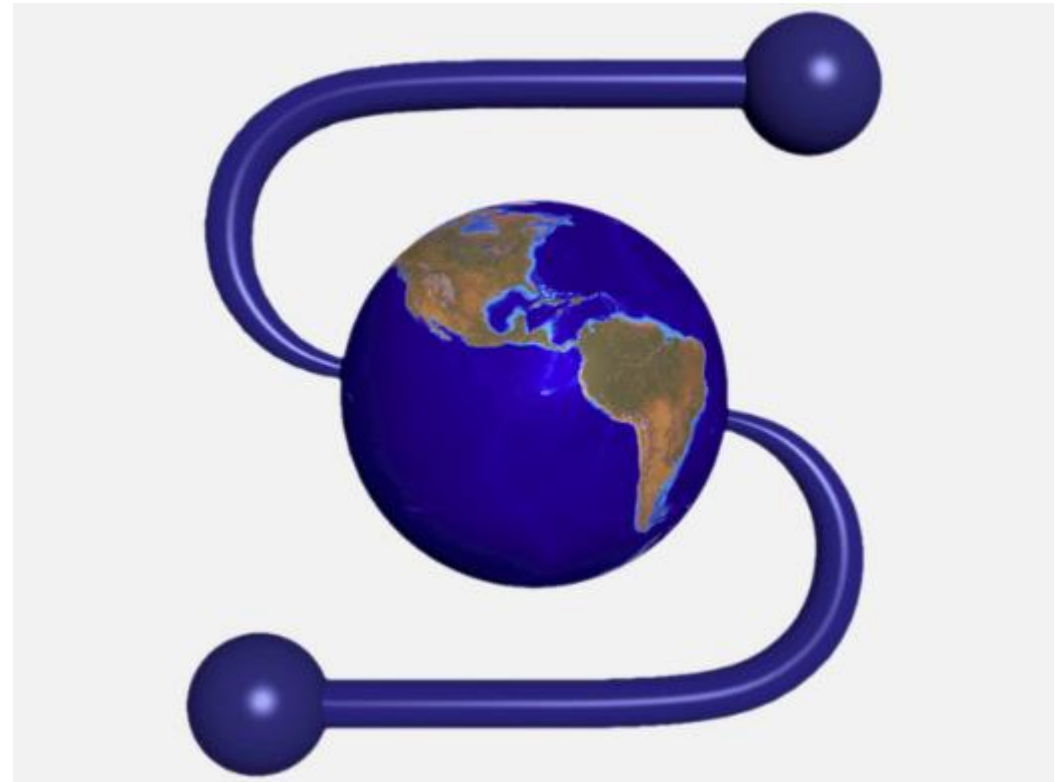
WorldWideWeb / Nexus

- Developed in 1990 by Tim Berners-Lee at Cern
- First web browser ever
- Only text based
- HTML, URL, HTTP
- Used for Information Exchange



Mosaic

- Developed in 1993 by a team of computer scientists at the University of Illinois
- First browser with Graphical User Interface
- Innovated bookmarking, browser history and clickable hyperlinks
- First browser to support images on webpages



Netscape Navigator

- Developed in 1994
- Direct successor to Mosaic
- Introduction of Javascript and Cookies
- First browser to support HTTPS-protocol
- Plug-in support



Internet Explorer

- Developed by Microsoft in 1995
- Default browser for Windows
- Innovated Document Object Model (DOM) and Asynchronous Javascript and XML (AJAX)
- Made CSS famous



1995-2006



1995-2006



1996-2006



1997-2006



2001-2006



2005-2006



2006-2011



2011-2012



2012-2015

Browser Wars

- Between 1990s and early 2000s
- Period of intense competition between Internet Explorer and Netscape Navigator
- Unethical practices by Microsoft
 - Default browser on Windows
 - Threatening of smaller businesses
 - Contract with Apple for macOS
- Antitrust lawsuit in 1998



Mozilla Firefox

- Developed by Mozilla in 2004
- Direct successor to Netscape Navigator
- Open-source and non-profit
- Innovated browser extensions
- High reputation for its security



Opera

- Developed in 1994
- Initially launched as corporate software
- Invented the tabbed-browsing functionality
- Stayed under the radar for most users
- Innovations like speed dial and Opera Turbo



Safari

- Developed by Apple in 2003
- Created after the contract with Microsoft expired
- Tight integration with Apple's ecosystem
- Inventor of the private browsing functionality



Google Chrome

- Developed by Google in 2008
- Open-source code base (Chromium)
- Inventor of Omnibox and sandboxing technology
- Current browser market leader



Microsoft Edge

- Developed by Microsoft in 2015
- Replaced Internet Explorer
- Early version flopped
- 2020 – new Chromium based version
- Innovative features like price comparison tool or AI writing assistant





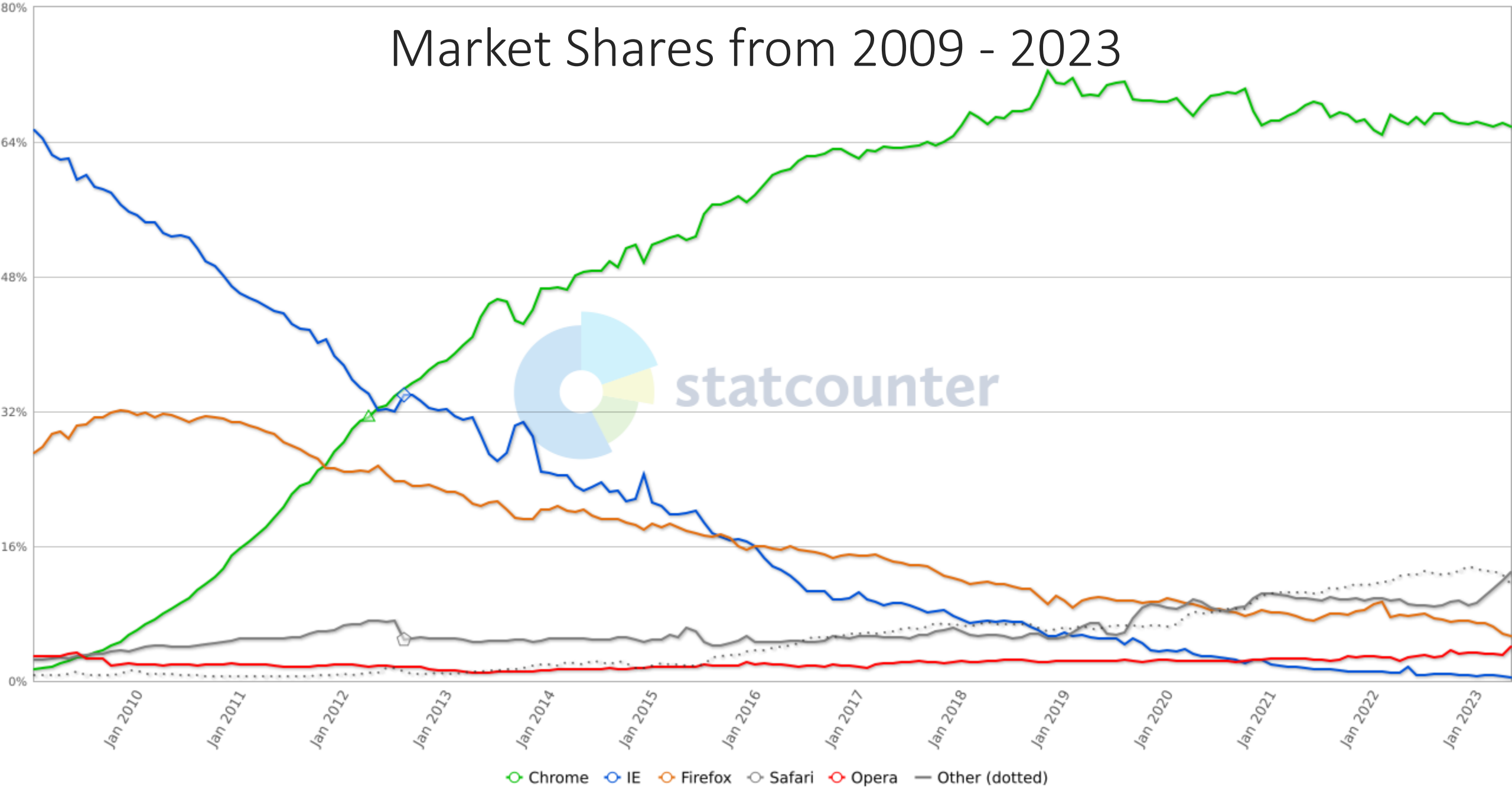
Browser Market and Trends



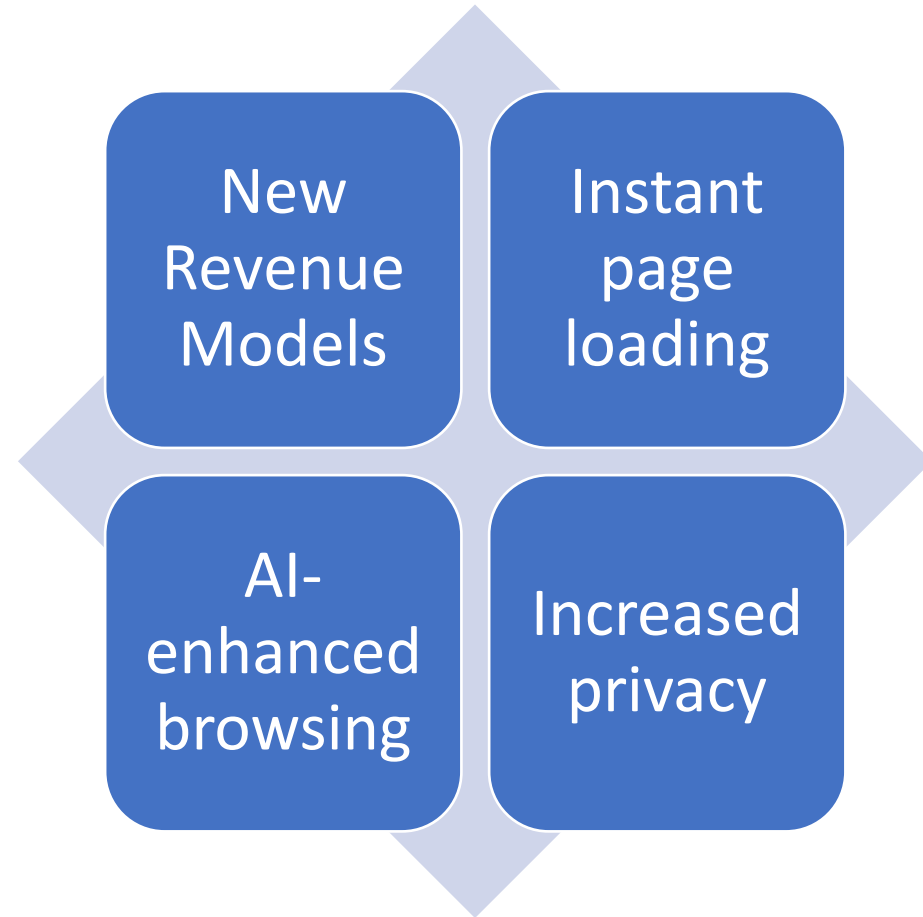
Peak Market Shares of each Web Browser as of May, 2023

- WorldWideWeb/Nexus **100%**
- Internet Explorer < **95%**
- Mosaic < **95%**
- Netscape Navigator < **90%**
- Google Chrome < **72%**
- Mozilla Firefox < **32%**
- Microsoft Edge < **11%**
- Opera < **4%**

Market Shares from 2009 - 2023



Trends for Web Browser



Thank you for your
attention

