

# What is Web Design? – Part 1

History & Geography

Design for web content

weebly

eCommerce by Square

Get Started

Turn your idea into a website or online store

Create a high-quality website or online store with tools that help it come to life.

WebsiteOnline Store

FRESH BLOOMS

Tons of professional themes

WIX

FeaturesExploreSubscriptionsTemplatesWix PartnersSupportLanguages

Sign In

Create a Website You're Proud Of

Discover the platform that gives you the freedom to create, design, manage and develop your web presence exactly the way you want.

Get Started

WIX

Page States

TPHONES

Unparalleled Listening Experience

CART

END-PRO QTY: 1 \$199.00

END-ACE QTY: 1 \$199.00

Nicolas

SQUARESPACE

TOURTEMPLATESSUPPORTLOG INGET STARTED

CREATE YOUR WEBSITE

The Leader in Website Design

Stand out online with a professional website, online store, or portfolio. With Squarespace, you can turn any idea into a reality.

GET STARTED

INDIA ZAHM

MUSIC TOUR SHOP ABOUT CONTACT

'VELVET' OUT NOW

LISTEN

MrSite

020 3014 1446 HelpSign In

HomeDomainsWebsitesHostingSecurityMarketingWorkspace

Build your future better

Build yourself a better website with Mr Site

START BUILDING YOUR WEBSITE NOW

# ...so, what is this module about?

- It's not about finding quick solutions
- It's not about learning to use software (although you may need to do that)
- It is about understanding the mechanics of web design at a fundamental level
- It is about learning how to create webpages and websites to a high standard (professional)
- It is about becoming a *designer* and a *developer*

Changing your mindset

**Creator**



**Consumer**

What is the Web?  
(what is the Internet?)

An analogy...



Road infrastructure = Servers and cables

Highway Code = TCP/IP

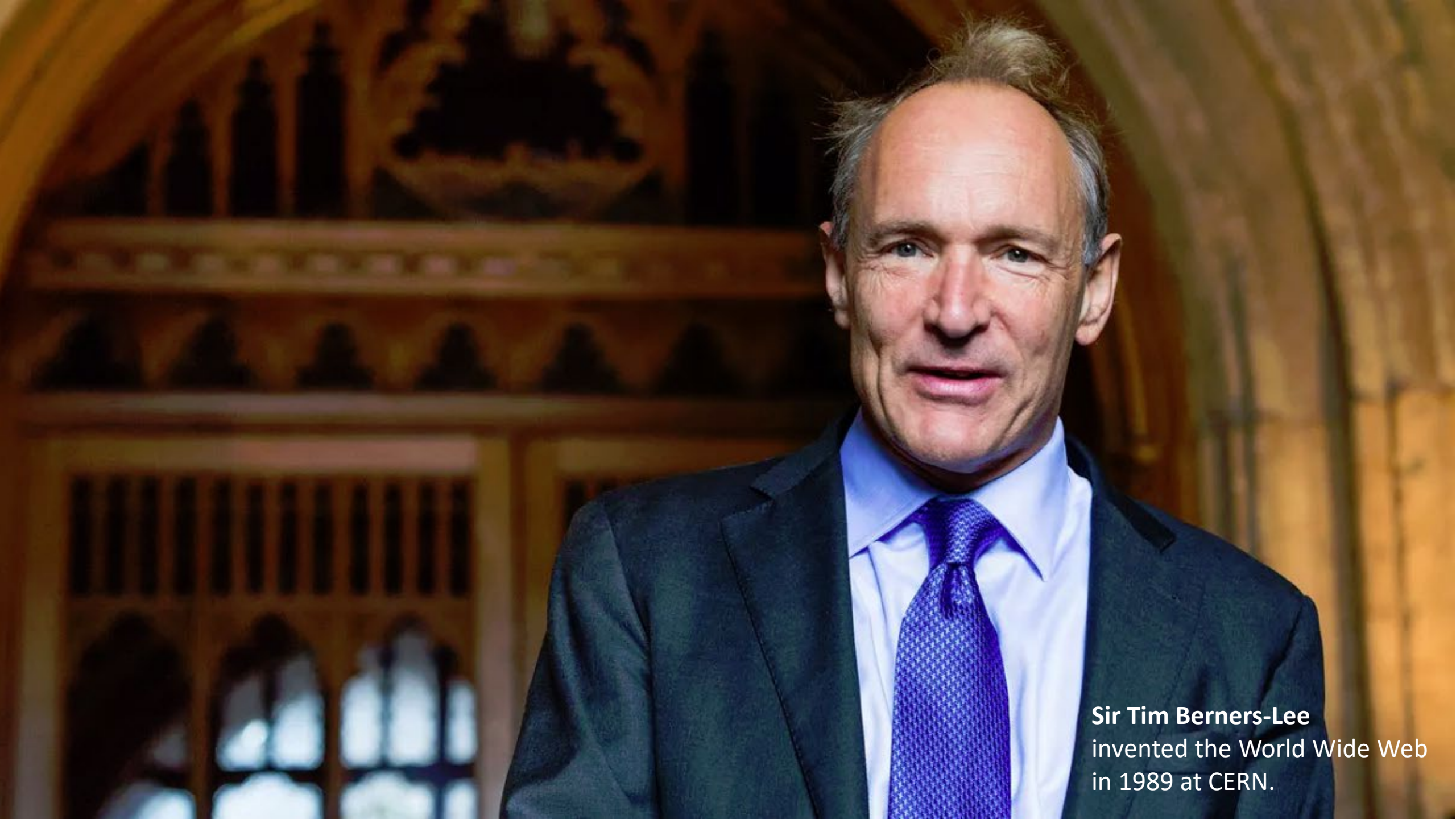
Transmission Control Protocol/Internet Protocol

Truck = HTTPS

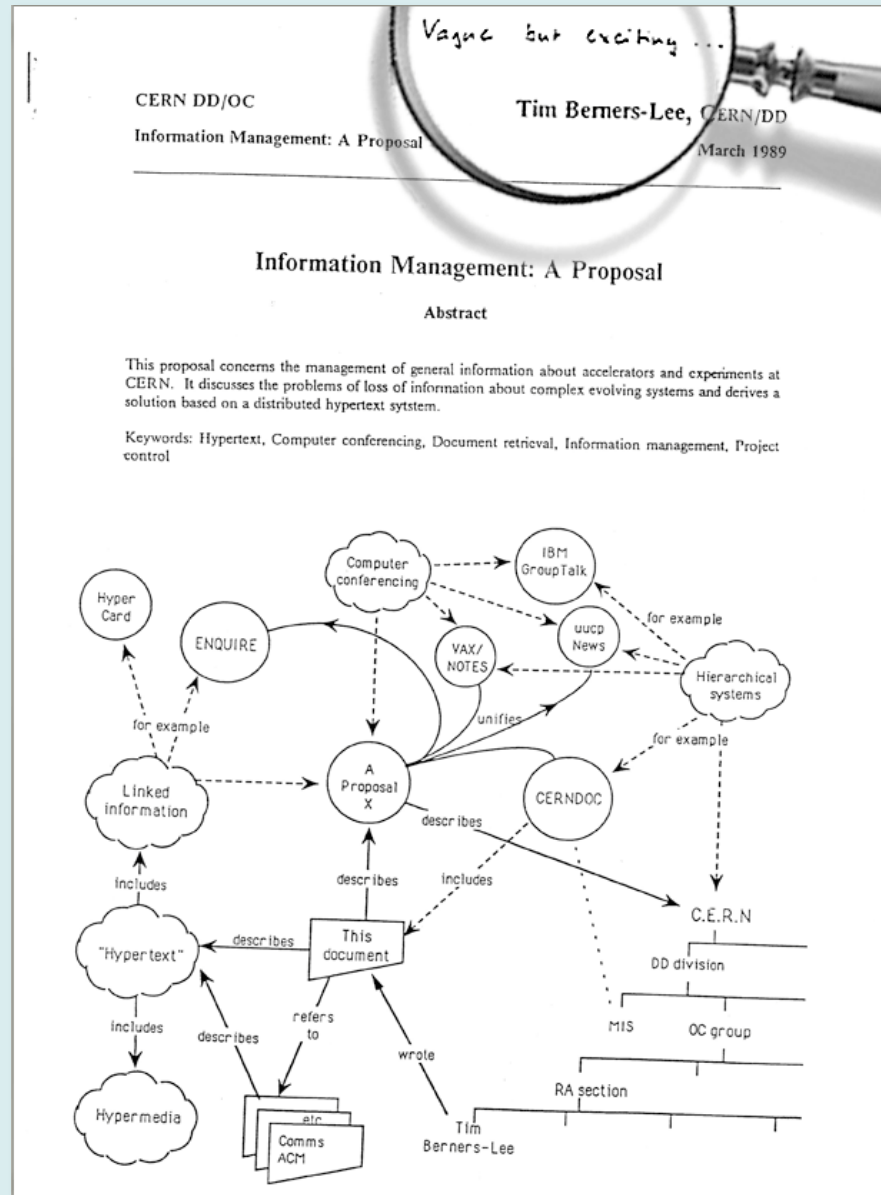
Hypertext Transfer Protocol Secure

Cargo = Web content





**Sir Tim Berners-Lee**  
invented the World Wide Web  
in 1989 at CERN.



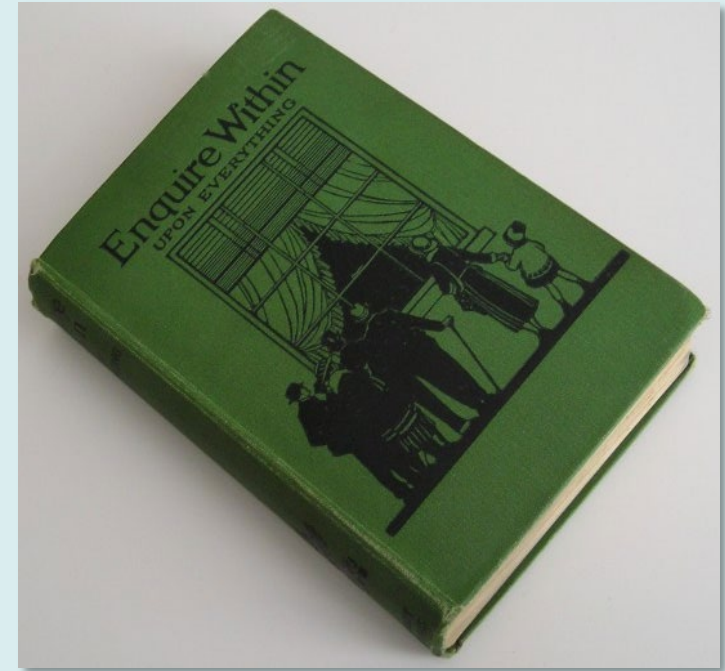
# “Vague but exciting”

In March 1989, Tim Berners-Lee submitted a proposal for an information management system to his boss, Mike Sendall. ‘Vague, but exciting’, were the words that Sendall wrote on the proposal, allowing Berners-Lee to continue.



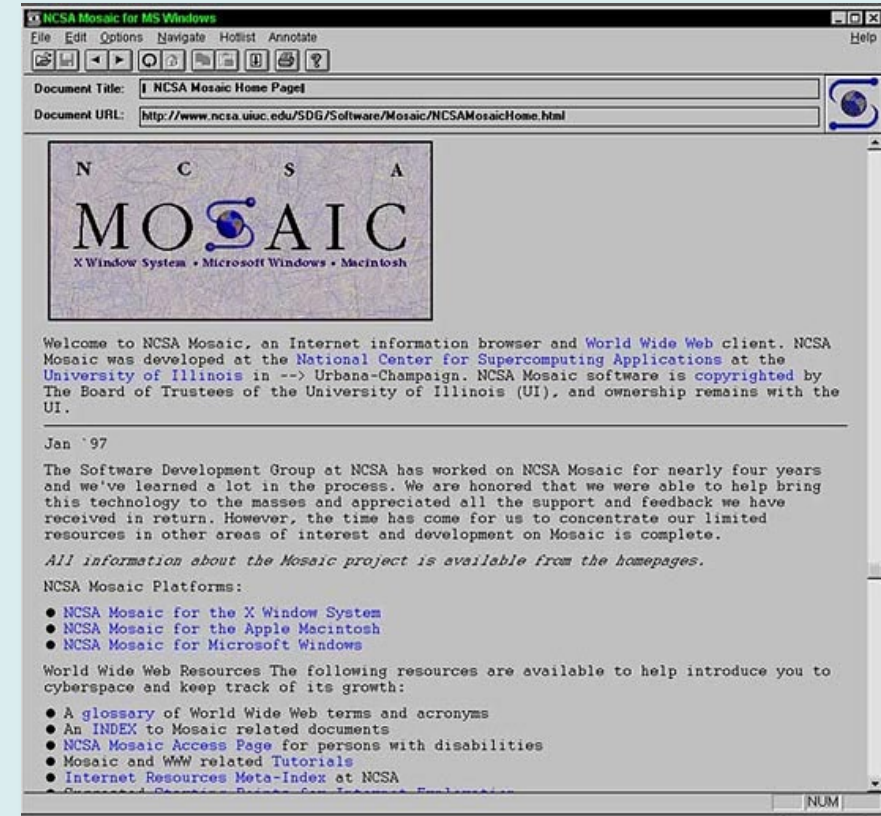
# Origins of the Web

- 1980 – Tim Berners-Lee began building an information system at CERN in Switzerland and called it ENQUIRE.
- 1989 – Vague but exciting
- 1990 – TB-L and Robert Cailliau publish “proposal for the World Wide Web”. By year end, TB-L has all tools necessary, including the first browser.



# The public Web

- **1991** – WWW debuts as a public service on the internet.
- **1993** – On 30<sup>th</sup> April, WWW becomes a free service.
- **1993** – The Mosaic graphical browser released and web begins to gain critical mass.



See: [http://en.wikipedia.org/wiki/World\\_wide\\_web](http://en.wikipedia.org/wiki/World_wide_web) for more detail

[20 years of a free, open web](#)

[Mosaic browser](#)

# The first web page

## World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#) , [Policy](#) , November's [W3 news](#) , [Frequently Asked Questions](#) .

### [What's out there?](#)

Pointers to the world's online information, [subjects](#) , [W3 servers](#), etc.

### [Help](#)

on the browser you are using

### [Software Products](#)

A list of W3 project components and their current state. (e.g. [Line Mode](#) ,X11 [Viola](#) , [NeXTStep](#) , [Servers](#) , [Tools](#) , [Mail robot](#) , [Library](#) )

### [Technical](#)

Details of protocols, formats, program internals etc

### [Bibliography](#)

Paper documentation on W3 and references.

### [People](#)

A list of some people involved in the project.

### [History](#)

A summary of the history of the project.

### [How can I help ?](#)

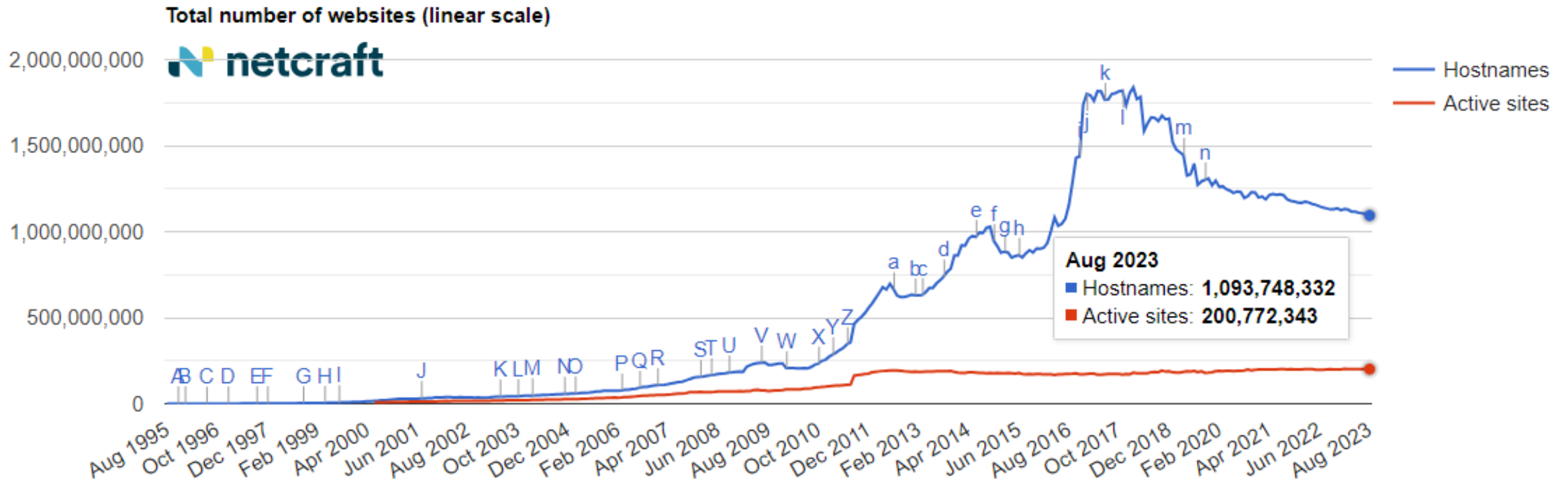
If you would like to support the web..

### [Getting code](#)

Getting the code by [anonymous FTP](#) , etc.

Tim Berners-Lee created the first webpage in 1989. It was built using a markup language he invented called HTML (HyperText Markup Language). All webpages are built using HTML and the backwards-compatibility of the web that Berners-Lee designed means that the first webpage can be viewed in any modern web browser.

# Growth of the Web



Total number of websites in August 2023 = **200,772,343**





London 2012  
opening ceremony



# Internet Usage, Sept 2006

| WORLD INTERNET USAGE AND POPULATION STATISTICS   |                            |                          |                                |                                 |                        |                              |
|--|----------------------------|--------------------------|--------------------------------|---------------------------------|------------------------|------------------------------|
| World Regions  | Population<br>( 2006 Est.) | Population<br>% of World | Internet Usage,<br>Latest Data | % Population<br>( Penetration ) | Usage<br>% of<br>World | Usage<br>Growth<br>2000-2006 |
| <a href="#">Africa</a>   | 915,210,928                | 14.1 %                   | 32,765,700                     | 3.6 %                           | 3.0 %                  | 625.8 %                      |
| <a href="#">Asia</a>   | 3,667,774,066              | 56.4 %                   | 394,872,213                    | 10.8 %                          | 36.4 %                 | 245.5 %                      |
| <a href="#">Europe</a>   | 807,289,020                | 12.4 %                   | 308,712,903                    | 38.2 %                          | 28.4 %                 | 193.7 %                      |
| <a href="#">Middle East</a>  | 190,084,161                | 2.9 %                    | 19,028,400                     | 10.0 %                          | 1.8 %                  | 479.3 %                      |
| <a href="#">North America</a>  | 331,473,276                | 5.1 %                    | 229,138,706                    | 69.1 %                          | 21.1 %                 | 112.0 %                      |
| <a href="#">Latin America/Caribbean</a>  | 553,908,632                | 8.5 %                    | 83,368,209                     | 15.1 %                          | 7.7 %                  | 361.4 %                      |
| <a href="#">Oceania / Australia</a>  | 33,956,977                 | 0.5 %                    | 18,364,772                     | 54.1 %                          | 1.7 %                  | 141.0 %                      |
| <b>WORLD TOTAL</b>   | 6,499,697,060              | 100.0 %                  | 1,086,250,903                  | 16.7 %                          | 100.0 %                | 200.9 %                      |
| <p>NOTES: (1) Internet Usage and World Population Statistics were updated for Sept. 18, 2006. (2) CLICK on each world region for detailed regional information. (3) Demographic (Population) numbers are based on data contained in the <a href="#">world-gazetteer</a> website. (4) Internet usage information comes from data published by Nielsen//NetRatings, by the <a href="#">International Telecommunications Union</a>, by local NICs, and other other reliable sources. (5) For definitions, disclaimer, and navigation help, see the <a href="#">Site Surfing Guide</a>. (6) Information from this site may be cited, giving due credit and establishing an active link back to <a href="#">www.internetworldstats.com</a>. © Copyright 2006, Miniwatts Marketing Group. All rights reserved worldwide.</p> |                            |                          |                                |                                 |                        |                              |

# Internet Usage, June 2012

| <b>WORLD INTERNET USAGE AND POPULATION STATISTICS</b><br><b>June 30, 2012</b> |                                    |   |                                       |                                       |                             |                             |
|---|------------------------------------|---|---------------------------------------|---------------------------------------|-----------------------------|-----------------------------|
| <b>World Regions</b>  | <b>Population<br/>( 2012 Est.)</b> | <b>Internet Users<br/>Dec. 31, 2000</b> | <b>Internet Users<br/>Latest Data</b> | <b>Penetration<br/>(% Population)</b> | <b>Growth<br/>2000-2012</b> | <b>Users %<br/>of Table</b> |
| <a href="#"><u>Africa</u></a>   | 1,073,380,925                      | 4,514,400                               | 167,335,676                           | 15.6 %                                | 3,606.7 %                   | 7.0 %                       |
| <a href="#"><u>Asia</u></a>   | 3,922,066,987                      | 114,304,000                             | 1,076,681,059                         | 27.5 %                                | 841.9 %                     | 44.8 %                      |
| <a href="#"><u>Europe</u></a>   | 820,918,446                        | 105,096,093                             | 518,512,109                           | 63.2 %                                | 393.4 %                     | 21.5 %                      |
| <a href="#"><u>Middle East</u></a>  | 223,608,203                        | 3,284,800                               | 90,000,455                            | 40.2 %                                | 2,639.9 %                   | 3.7 %                       |
| <a href="#"><u>North America</u></a>  | 348,280,154                        | 108,096,800                             | 273,785,413                           | 78.6 %                                | 153.3 %                     | 11.4 %                      |
| <a href="#"><u>Latin America /<br/>Caribbean</u></a>                          | 593,688,638                        | 18,068,919                              | 254,915,745                           | 42.9 %                                | 1,310.8 %                   | 10.6 %                      |
| <a href="#"><u>Oceania / Australia</u></a>                                    | 35,903,569                         | 7,620,480                               | 24,287,919                            | 67.6 %                                | 218.7 %                     | 1.0 %                       |
| <a href="#"><u>WORLD TOTAL</u></a>  | 7,017,846,922                      | 360,985,492                             | 2,405,518,376                         | 34.3 %                                | 566.4 %                     | 100.0 %                     |

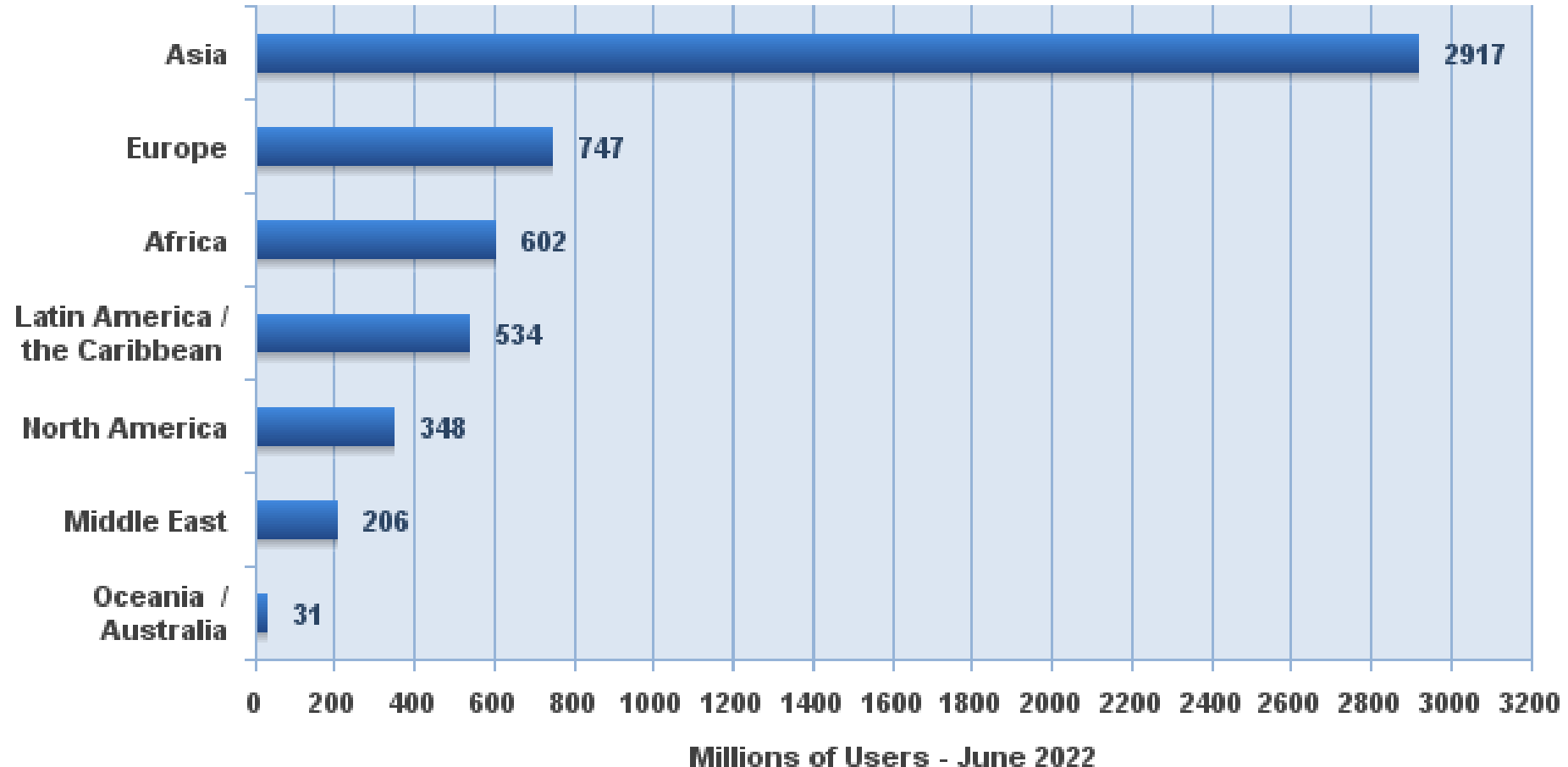
# Internet Usage, June 2018

| <b>WORLD INTERNET USAGE AND POPULATION STATISTICS<br/>JUNE 30, 2018 - Update</b>  |                                    |                                  |  |                                      |                             |                             |
|---|------------------------------------|----------------------------------|--|--------------------------------------|-----------------------------|-----------------------------|
| <b>World Regions</b>  | <b>Population<br/>( 2018 Est.)</b> | <b>Population<br/>% of World</b> | <b>Internet Users<br/>30 June 2018</b> | <b>Penetration<br/>Rate (% Pop.)</b> | <b>Growth<br/>2000-2018</b> | <b>Internet<br/>Users %</b> |
| <a href="#"><u>Africa</u></a>   | 1,287,914,329                      | 16.9 %                           | 464,923,169                            | 36.1 %                               | 10,199 %                    | 11.0 %                      |
| <a href="#"><u>Asia</u></a>   | 4,207,588,157                      | 55.1 %                           | 2,062,197,366                          | 49.0 %                               | 1,704 %                     | 49.0 %                      |
| <a href="#"><u>Europe</u></a>   | 827,650,849                        | 10.8 %                           | 705,064,923                            | 85.2 %                               | 570 %                       | 16.8 %                      |
| <a href="#"><u>Latin America / Caribbean</u></a>  | 652,047,996                        | 8.5 %                            | 438,248,446                            | 67.2 %                               | 2,325 %                     | 10.4 %                      |
| <a href="#"><u>Middle East</u></a>  | 254,438,981                        | 3.3 %                            | 164,037,259                            | 64.5 %                               | 4,894 %                     | 3.9 %                       |
| <a href="#"><u>North America</u></a>  | 363,844,662                        | 4.8 %                            | 345,660,847                            | 95.0 %                               | 219 %                       | 8.2 %                       |
| <a href="#"><u>Oceania / Australia</u></a>  | 41,273,454                         | 0.6 %                            | 28,439,277                             | 68.9 %                               | 273 %                       | 0.7 %                       |
| <a href="#"><u>WORLD TOTAL</u></a>  | 7,634,758,428                      | 100.0 %                          | 4,208,571,287                          | 55.1 %                               | 1,066 %                     | 100.0 %                     |
| NOTES: (1) Internet Usage and World Population Statistics estimates in June 30, 2018. (2) CLICK on each world region name for detailed regional usage information. (3) Demographic (Population) numbers are based on data from the <a href="#"><u>United Nations Population Division</u></a> . (4) Internet usage information comes from data published by <a href="#"><u>Nielsen Online</u></a> , by the <a href="#"><u>International Telecommunications Union</u></a> , by <a href="#"><u>GfK</u></a> , by local ICT Regulators and other reliable sources. (5) For definitions, navigation help and disclaimers, please refer to the <a href="#"><u>Website Surfing Guide</u></a> . (6) The information from this website may be cited, giving the due credit and placing a link back to <a href="http://www.internetworldstats.com"><u>www.internetworldstats.com</u></a> . Copyright © 2018, Miniwatts Marketing Group. All rights reserved worldwide. |                                    |                                  |  |                                      |                             |                             |

# Internet Usage, June 2022

| <b>WORLD INTERNET USAGE AND POPULATION STATISTICS</b><br><b>2022 Year Estimates</b>  |                            |                          |                                |                              |                     |                     |
|--|----------------------------|--------------------------|--------------------------------|------------------------------|---------------------|---------------------|
| World Regions  | Population<br>( 2022 Est.) | Population<br>% of World | Internet Users<br>30 June 2022 | Penetration<br>Rate (% Pop.) | Growth<br>2000-2022 | Internet<br>World % |
| <a href="#">Africa</a>   | 1,394,588,547              | 17.6 %                   | 652,865,628                    | 46.8 %                       | 14,362 %            | 11.9 %              |
| <a href="#">Asia</a>   | 4,352,169,960              | 54.9 %                   | 2,934,186,678                  | 67.4 %                       | 2,467 %             | 53.6 %              |
| <a href="#">Europe</a>   | 837,472,045                | 10.6 %                   | 750,045,495                    | 89.6 %                       | 614 %               | 13.7 %              |
| <a href="#">Latin America / Carib.</a>   | 664,099,841                | 8.4 %                    | 543,396,621                    | 81.8 %                       | 2,907 %             | 9.9 %               |
| <a href="#">North America</a>  | 374,226,482                | 4.7 %                    | 349,572,583                    | 93.4 %                       | 223 %               | 6.4 %               |
| <a href="#">Middle East</a>  | 268,302,801                | 3.4 %                    | 211,796,760                    | 78.9 %                       | 6,378 %             | 3.9 %               |
| <a href="#">Oceania / Australia</a>  | 43,602,955                 | 0.5 %                    | 31,191,971                     | 71.5 %                       | 309 %               | 0.6 %               |
| <a href="#">WORLD TOTAL</a>  | 7,934,462,631              | 100.0 %                  | 5,473,055,736                  | 69.0 %                       | 1,416 %             | 100.0 %             |
| NOTES: (1) Internet Usage and World Population Statistics estimates are for July 31, 2022. (2) CLICK on each world region name for detailed regional usage information. (3) Demographic (Population) numbers are based on data from the <a href="#">United Nations Population Division</a> . (4) Internet usage information comes from data published by <a href="#">Nielsen Online</a> , by the <a href="#">International Telecommunications Union</a> , by <a href="#">GfK</a> , by local ICT Regulators and other reliable sources. (5) For definitions, navigation help and disclaimers, please refer to the <a href="#">Website Surfing Guide</a> . (6) The information from this website may be cited, giving the due credit to <a href="#">www.internetworldstats.com</a> . Copyright © 2022, Miniwatts Marketing Group. All rights reserved worldwide. |                            |                          |                                |                              |                     |                     |

# Internet Users in the World by Geographic Regions - 2022



Source: Internet World Stats - [www.internetworldstats.com/stats.htm](http://www.internetworldstats.com/stats.htm)

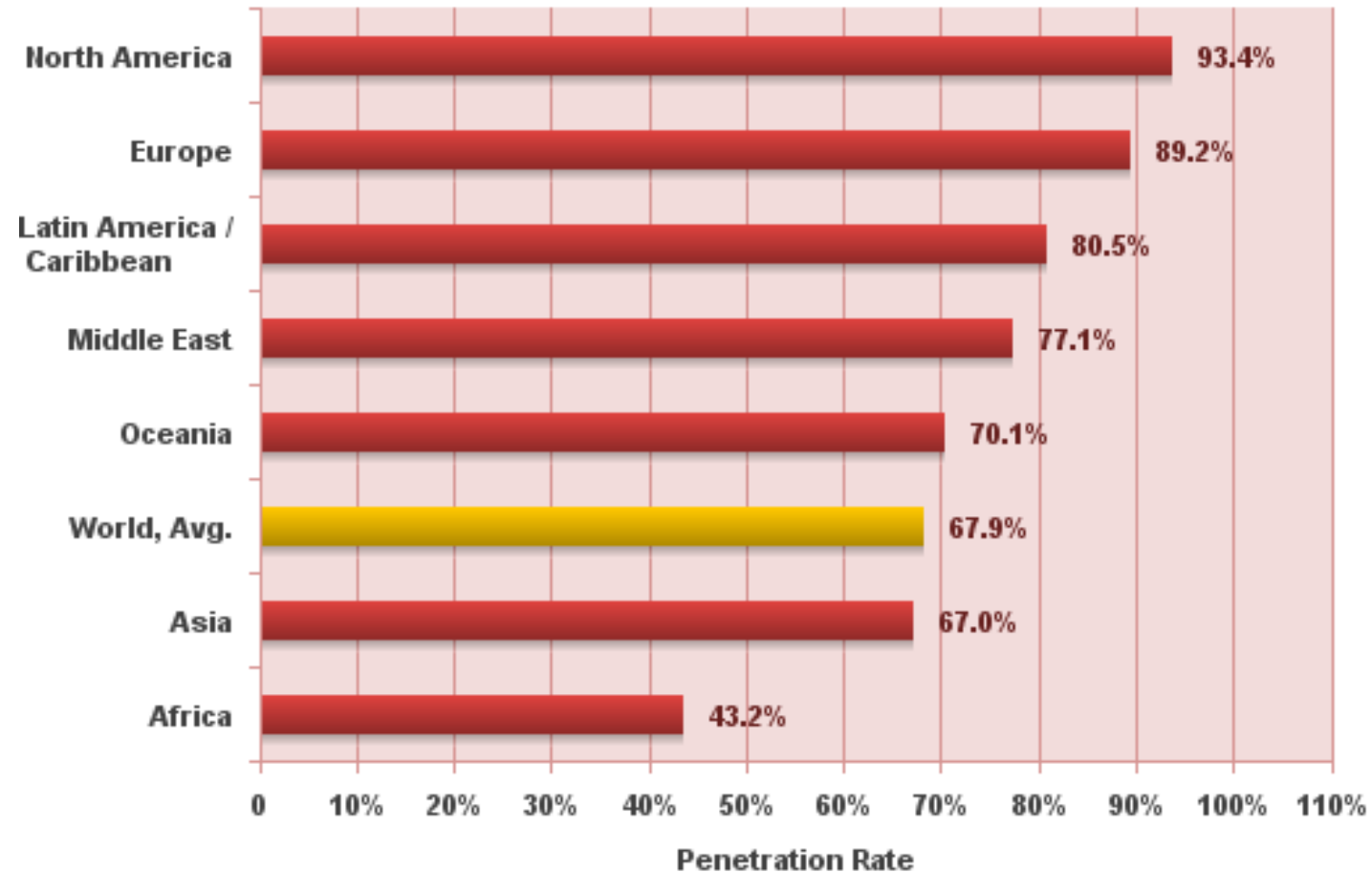
Basis: 5,385,798,406 Internet users estimated in June 30, 2022

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<http://www.internetworldstats.com/stats.htm> (27.09.22)



## Internet World Penetration Rates by Geographic Regions - 2022



Source: Internet World Stats - [www.internetworldstats.com/stats.htm](http://www.internetworldstats.com/stats.htm)  
Penetration Rates are based on a world population of 7,932,791,734  
and 5,385,798,406 estimated Internet users in June 30, 2022.  
Copyright © 2022, Miniwatts Marketing Group


Who coordinates Web technologies?

# Web Standards

- World Wide Web Consortium ([www.w3.org](http://www.w3.org))  
founded in October 1994
- Set up by Tim Berners-Lee
- Maintains Web “Standards”
- URI ([Universal Resource Identifiers](#))
- HTTP ([HyperText Transport Protocol](#))
- HTML ([HyperText Markup Language](#))
- Other “languages”  
CSS ([Cascading Style Sheets](#))  
XML ([eXtensible Markup Language](#))

<http://www.w3.org> (04.10.06)

The screenshot displays the W3C website interface. At the top, there's a navigation bar with links for STANDARDS, PARTICIPATE, MEMBERSHIP, and ABOUT W3C. Below this, a sidebar on the left lists various web technologies and standards like Web Design and Applications, Web Architecture, Semantic Web, XML Technology, Web of Services, Web of Devices, and Browsers and Authoring Tools. The main content area features several news items, including a W3C Webinar on Distributed Multimodal Interaction, a Last Call for TriG, and a DOMMatrix interface draft. There are also sections for COMMUNITY AND BUSINESS GROUPS, WORKING GROUPS, and EVENTS. The footer contains navigation links, contact information, and W3C updates.



Views: [desktop](#) [mobile](#) [print](#)

W3C By Region Go

STANDARDS PARTICIPATE MEMBERSHIP ABOUT W3C

Google

Skip

TECHNICAL REPORTS

By date

By group

WEB AND INDUSTRY

Automotive

Digital Publishing

Mobile Web

TV and Broadcasting

Web Payments

Web of Data

WEB FOR ALL

Accessibility

Internationalization

W3C A to Z

COMMUNITY AND BUSINESS GROUPS

Current Groups

Proposed Groups

WORKING GROUPS

Specifications by group

▾ Authoring Tool Accessibility Guidelines (ATAG) 2.0 is a W3C Recommendation

24 September 2015 | [Archive](#)

The [Authoring Tool Accessibility Guidelines Working Group](#) has published a W3C Recommendation of [Authoring Tool Accessibility Guidelines \(ATAG\) 2.0](#). ATAG 2.0 provides guidelines for designing web content authoring tools that are both more accessible to authors with disabilities; and are designed to enable, support, and promote the production of more accessible web content by all authors. [Implementing ATAG 2.0](#) has been published as a Working Group Note.

▸ Frame Timing Draft Published

24 September 2015 | [Archive](#)

▸ Call for Review: HTML Canvas 2D Context Proposed Recommendation Published



24 September 2015 | [Archive](#)

▸ Web Workers Draft Published

24 September 2015 | [Archive](#)

▸ One Draft and One Note Published by the Web Performance WG

22 September 2015 | [Archive](#)

[More news...](#)  

TALKS AND APPEARANCES

2015

8 OCT

Cooperation driving innovative standards

EVENTS

2015

1 OCT 3 OCT

Paris Web  
Montrouge, France

The World Wide Web Consortium (W3C) is an international community that develops open [standards](#) to ensure the long-term growth of the Web. Read about the [W3C mission](#).

W3C BLOG

TPAC 2016 dates and location announced

28 September 2015 by [Coralie Mercier](#)

More Accessible Web Authoring with ATAG 2.0

24 September 2015 by [Jeanne F Spellman](#)

TPE to CR: Advancing the conversation about Web tracking preferences

20 August 2015 by [Wendy Seltzer](#)

JOBS

Open position for a Web Standards Technology Expert

VALIDATORS, MORE SOFTWARE

More validators: [Unicorn](#), [HTML](#), [CSS](#)

[W3C cheatsheet](#)

[More Open Source Software](#)

WEB STANDARDS FOR THE

<http://www.w3.org> (29.09.15)

```
<end class="slideshow" />
```