

History of communication

Prehistoric era: beginnings of human language

-3600 BC: beginnings of writing

15th century: printing

19th century: telephone, radio broadcasting,
photography, cinema

20th century: television broadcasting, computing,
networking, Internet, mobile communication

19th / 20th century → major sociological changes
(spread of urbanisation & public use of technological
inventions)

Acceleration of inventions

At least 500,000 yrs between invention of language and invention of writing

At least 5,000 yrs betw writing and invention of printing

400 yrs betw printing and invention of telephone (Bell, 1876), radio (Marconi, 1896), cinema (Lumière Bros, 1894)

50 yrs later, beginnings of television broadcasting (1940's)

30 yrs later, micro-computing & Internet (1970's)

10 yrs later, mobile communication (1980's)

Today, convergence of technology, social networks, apps, IoT, AR...

CMC

End 1970's – Home Personal Computers (Mac, IBM PC, Intel-Microsoft)

1980's - Videotex online services (Minitel, Prestel)

End 1960's - ARPANET → military DoD

Usenet - research centres / university network

1971 – Ray Tomlinson – e-mail

1973 – FTP + TCP/IP (Vint Cerf & Robert Kahn)

1983 – separation into MILNET



Apple II - 1977



Minitel -1982

Development of Internet

1991 – Hypertext - World Wide Web → Tim Berners Lee (CERN)

1993 – Mosaic web browser – Marc Andreessen

Search engines (Archie 1990, Lycos 1993, Yahoo & Altavista 1995, Google 1998)



Open Source Software (1998)

Forums, newsgroups, blogs, wikis, social networks

3.6 b people online – 49.2% of world population with 900% growth between 2000 and 2016 (Internet World Stats, June 2016)

INTERNET USAGE STATISTICS

The Internet Big Picture

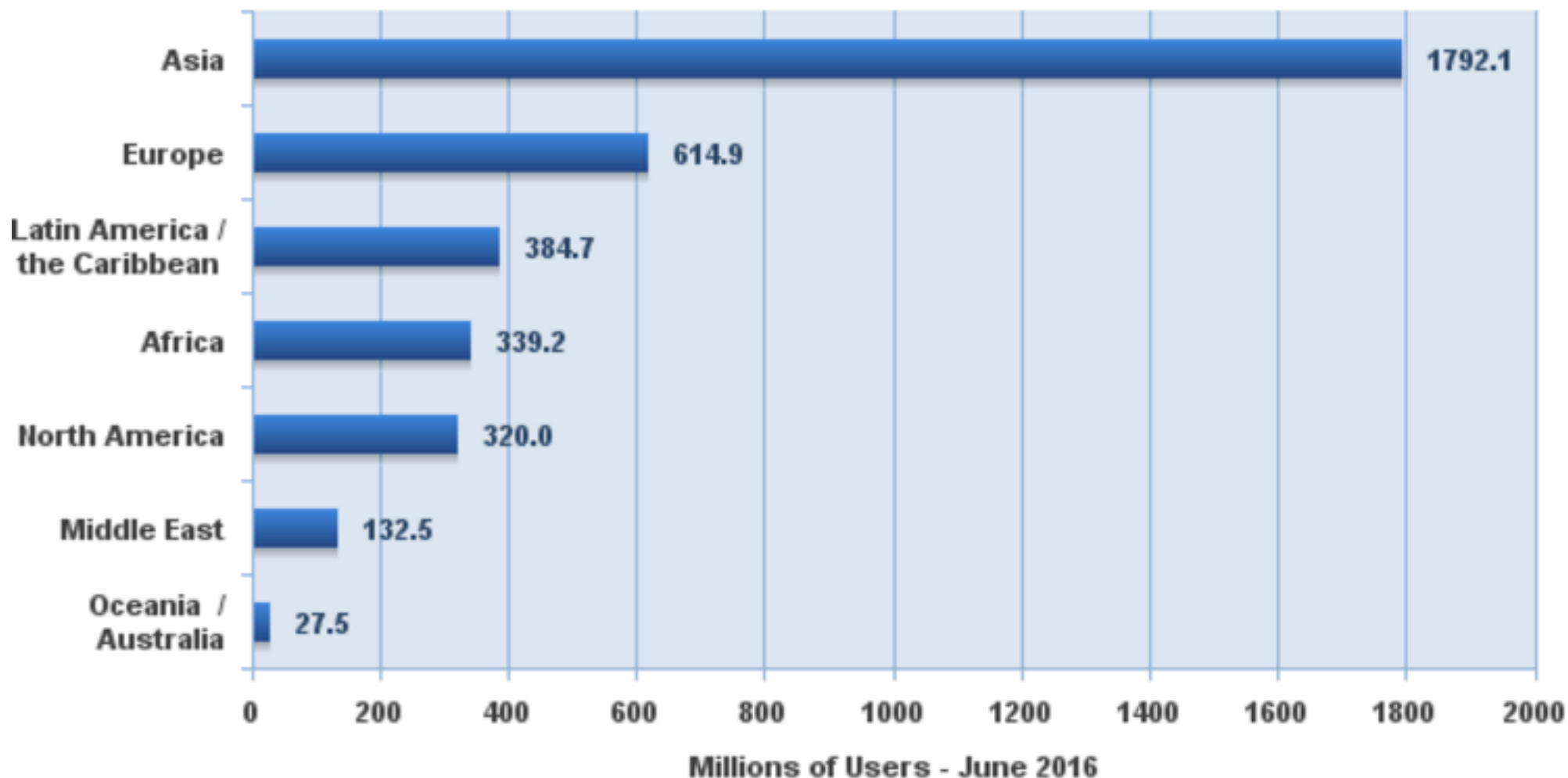
World Internet Users and 2016 Population Stats

WORLD INTERNET USAGE AND POPULATION STATISTICS JUNE 30, 2016 - Update

World Regions	Population (2016 Est.)	Population % of World	Internet Users 30 June 2016	Penetration (% Population)	Growth 2000-2016	Users % of Table
Africa	1,185,529,578	16.2 %	339,283,342	28.6 %	7,415.6%	9.4 %
Asia	4,052,652,889	55.2 %	1,792,163,654	44.2 %	1,467.9%	49.6 %
Europe	832,073,224	11.3 %	614,979,903	73.9 %	485.2%	17.0 %
Latin America / Caribbean	626,054,392	8.5 %	384,751,302	61.5 %	2,029.4%	10.7 %
Middle East	246,700,900	3.4 %	132,589,765	53.7 %	3,936.5%	3.7 %
North America	359,492,293	4.9 %	320,067,193	89.0 %	196.1%	8.9 %
Oceania / Australia	37,590,704	0.5 %	27,540,654	73.3 %	261.4%	0.8 %
WORLD TOTAL	7,340,093,980	100.0 %	3,611,375,813	49.2 %	900.4%	100.0 %

NOTES: (1) Internet Usage and World Population Statistics updated as of June 30, 2016. (2) CLICK on each world region name for detailed regional usage information. (3) Demographic (Population) numbers are based on data from the [US Census Bureau](#), [Eurostats](#) and from local census agencies. (4) Internet usage information comes from data published by [Nielsen Online](#), by the [International Telecommunications Union](#), by [GfK](#), by local ICT Regulators and other reliable sources. (5) For definitions, disclaimers, navigation help and methodology, please refer to the [Site Surfing Guide](#). (6) Information in this site may be cited, giving the due credit and placing a link to www.internetworldstats.com. Copyright © 2001 - 2016, Miniwatts Marketing Group. All rights reserved worldwide.

Internet Users in the World by Geographic Regions - June 2016

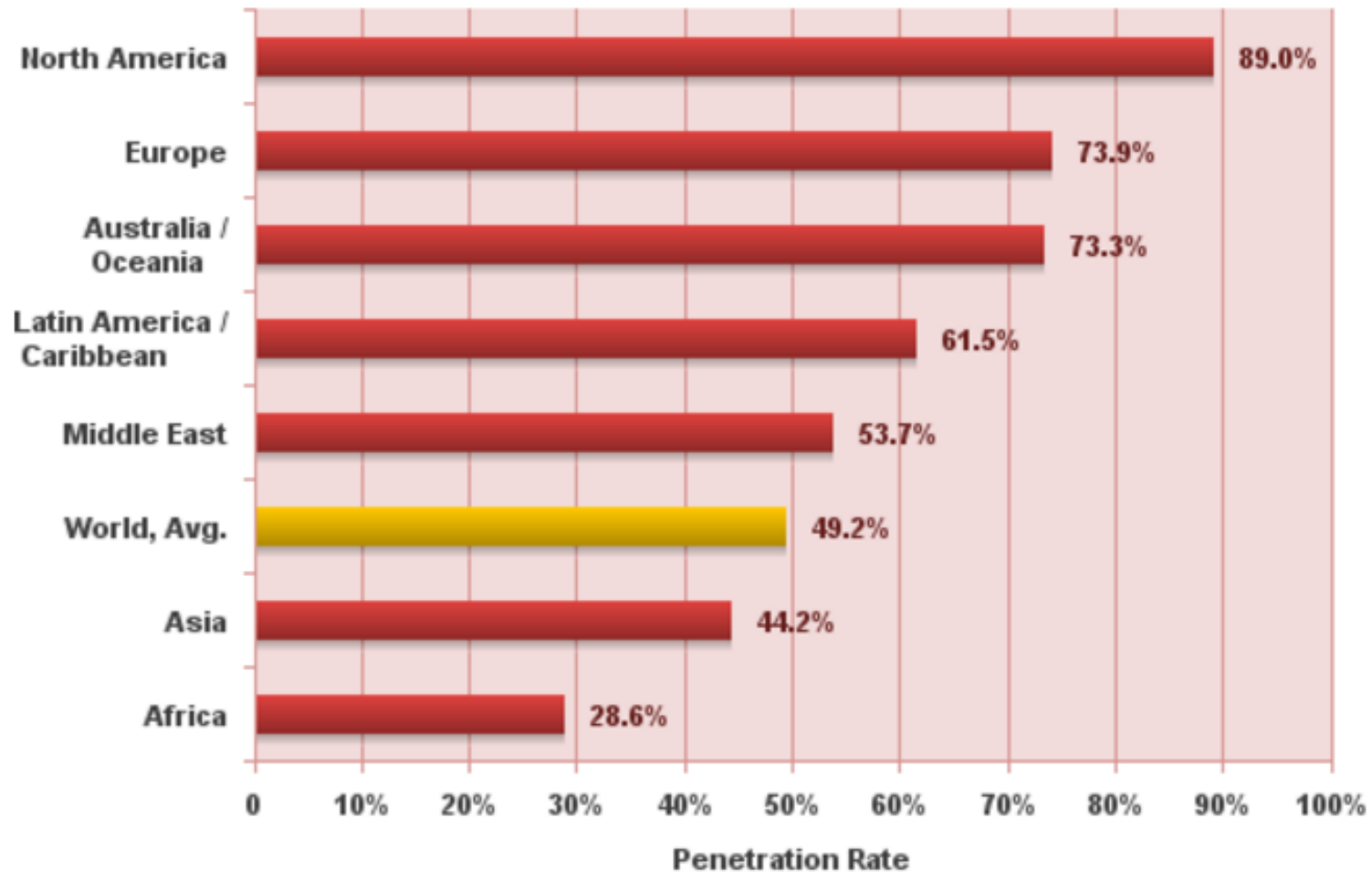


Source: Internet World Stats - www.internetworldstats.com/stats.htm

Basis: 3,611,375,813 Internet users estimated for June 30, 2016

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Internet World Penetration Rates by Geographic Regions - June 2016



Source: Internet World Stats - www.internetworldstats.com/stats.htm
Penetration Rates are based on a world population of 7,340,093,980
and 3,611,375,813 estimated Internet users on June 30, 2016.
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Internet

The Internet is the global system of interconnected computer networks that use the Internet protocol suite (TCP/IP) to link billions of devices worldwide. It is a network of networks that consists of millions of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies.

The Internet carries an extensive range of information resources and services, such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), electronic mail, telephony, and peer-to-peer networks for file sharing.

Wikipedia

ICANN, W3C, WSIS

ICANN - Internet Corporation for Assigned Names and Numbers - coordinates assignment of unique identifiers, including domain names, IP addresses... --> globally unified namespace

W3C – World Wide Web Consortium

WSIS - Nov 2005 - Tunis, established the Internet Governance Forum (IGF) to discuss Internet-related issues.

Language

English prevalent - 26.3% of Web visitors

Chinese – 20.8%

Spanish – 7.7%

Arabic – 4.7%

Portuguese – 4.3%

Japanese – 3.2%

(Internet World Stats, June 2016).

Mauritius

803,896 Internet users - 60% of the population

580,000 Facebook users on Nov 15/15, 43.3%
penetration rate.

(Internet World Stats, June 2016)

66.6 internet subscriptions per 100 inhabitants

(Stats Mauritius)

Mobile communication

1970's – first tests for cellular mobile phone
(Motorola vs ATT Bell)

1980's – spread of mobile networks (analogue)

1990's – 2G – digital networks - (1991 -1st GSM
network in Finland)

2000's – 3G (e.g. UMTS) – higher data speed

2010's – 4G (WiMax, LTE)



Dr. Martin Cooper of Motorola, made the first US analogue mobile phone call on a larger prototype model in 1973.



Legend:

1. NEC Cellstar 500 series (Early 1990s)
2. Nokia 2110 series (1994)
3. Nokia 5120 (1998)
4. Kyocera 2135 (2002)
5. Audiovox CDM8300 (2002)
6. Samsung SCH-A650 (2004)

Mauritius

Emtel = pioneer (1989)

Cellplus - 1996

30.1 fixed telephone lines per 100 inhabitants

139.5 mobile subscriptions per 100 inhabitants

(Stats Mauritius, 2015)