

Size and Shape

Tour of the World Wide Web – Session 1

Duke OLLI Fall 2023

David Shamlan

'Tech readiness,' which is tied to people's confident and independent use of devices, varies by age

% of U.S. adults who ...

26%

say they **usually need someone else** to set up a new computer, smartphone or other electronic device for them or show them how to use it

10%

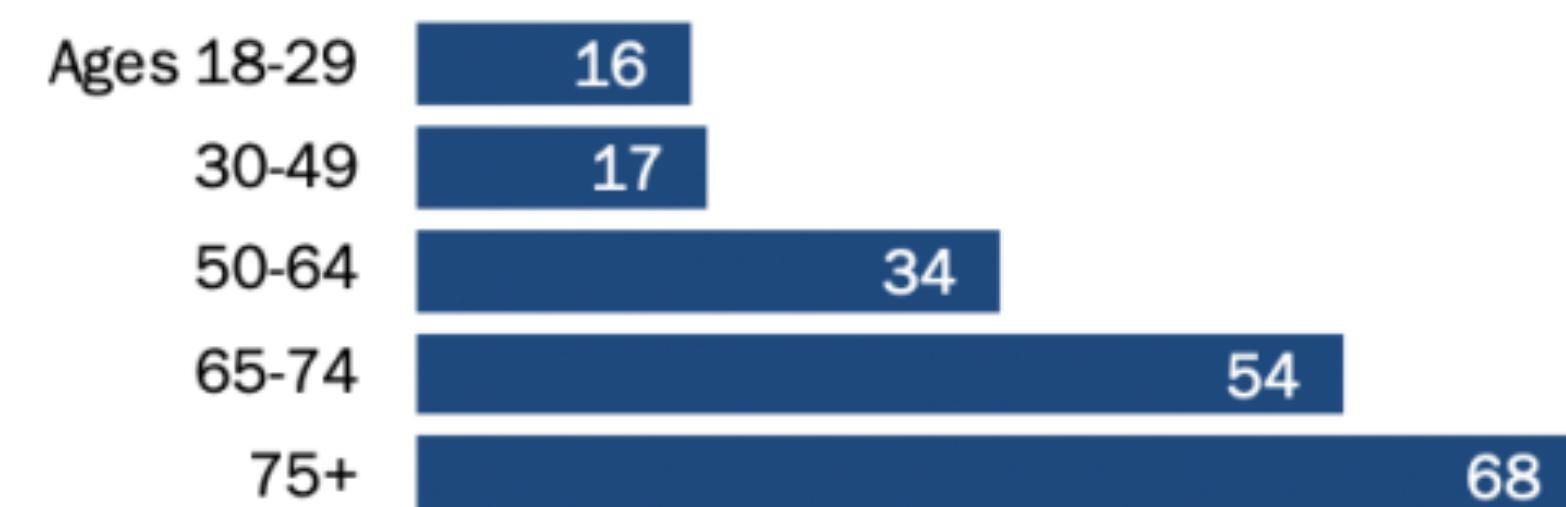
say they are **not at all** or **only a little confident** using computers, smartphones or other electronic devices to do things they need to do online

30%

say one (25%) or both (5%) of these things

These adults are considered to have
"lower tech readiness"

*% of U.S. adults who have "lower tech readiness"**



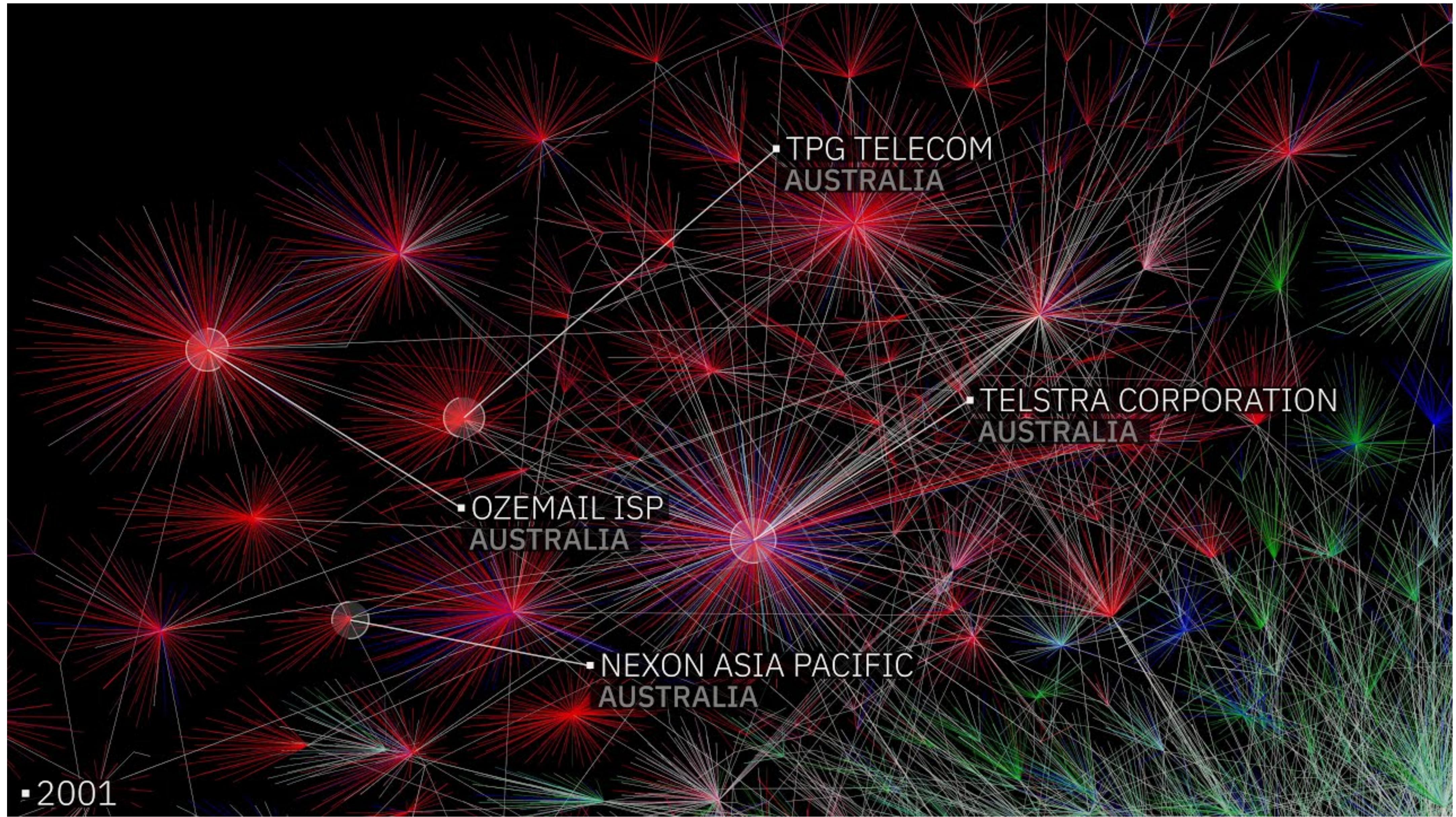
*Those with lower tech readiness say they are either not at all or only a little confident using their computers, smartphones or other electronic devices to do the things they need to do online, or they usually need someone else to set up or show them how to use a new computer, smartphone or other electronic device when they get it.
Note: Those who did not give an answer or who gave other responses are not shown.

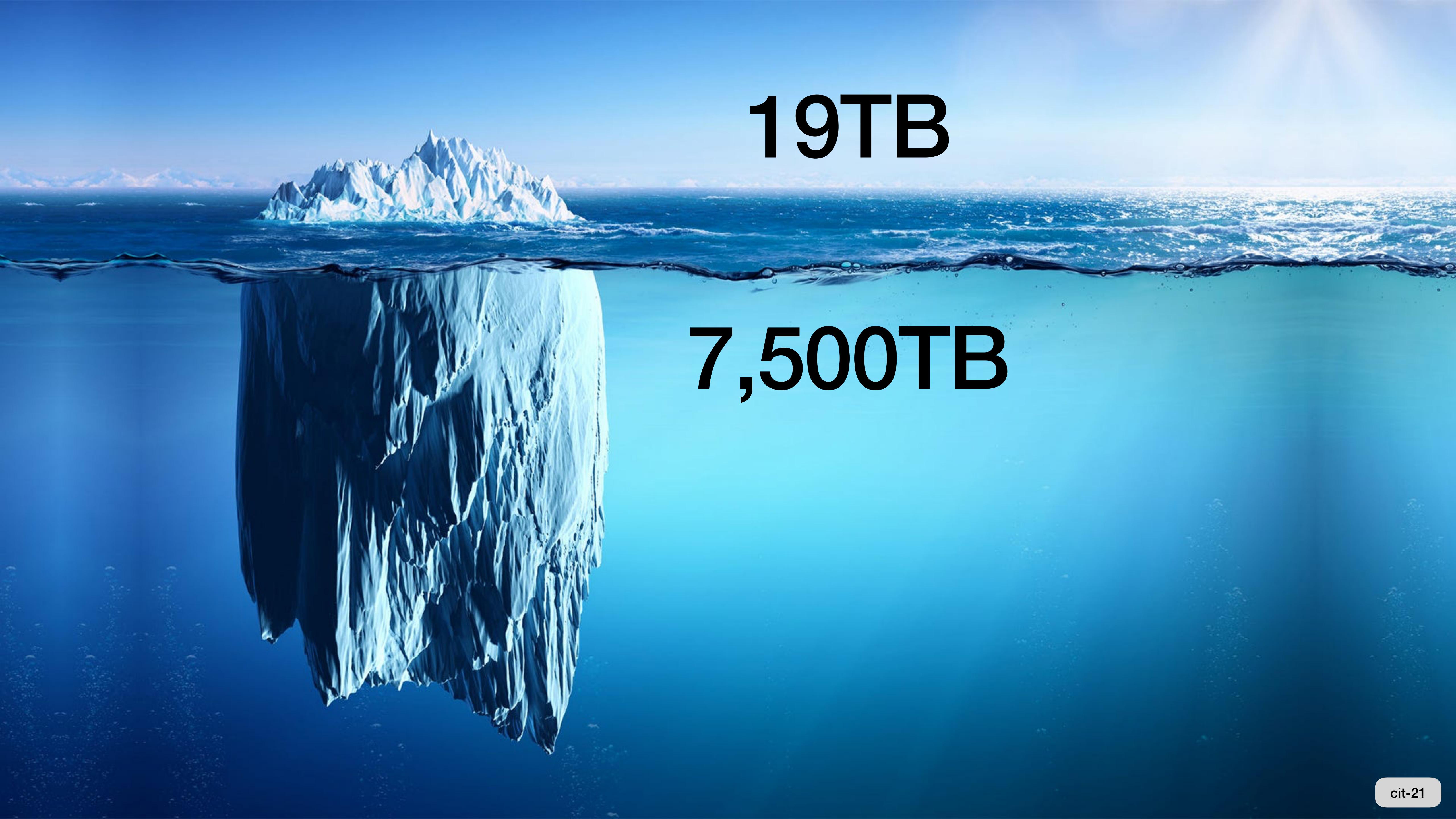
Source: Survey of U.S. adults conducted April 12-18, 2021.
"The Internet and the Pandemic"





2 billion websites



A photograph of a massive iceberg floating in the ocean. The visible portion above the water's surface is relatively small compared to the vast, submerged portion below, which represents the metaphorical "tip of the iceberg" of data storage.

19TB

7,500TB

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OVERVIEW OF INTERNET USE

ESSENTIAL INDICATORS OF INTERNET ADOPTION AND USE



GLOBAL OVERVIEW

TOTAL
INTERNET
USERS



5.16
BILLION

K
KEPIOS

INTERNET USERS AS
A PERCENTAGE OF
TOTAL POPULATION



64.4%
YOY: +1.1% (+70 BPS)

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YEAR-ON-YEAR CHANGE
IN THE TOTAL NUMBER
OF INTERNET USERS



+1.9%
+98 MILLION

PERCENTAGE OF THE
TOTAL FEMALE POPULATION
THAT USES THE INTERNET



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61.6%
YOY: +1.4% (+87 BPS)

PERCENTAGE OF THE
TOTAL MALE POPULATION
THAT USES THE INTERNET



67.2%
YOY: +0.8% (+53 BPS)

AVERAGE DAILY TIME
SPENT USING THE INTERNET
BY EACH INTERNET USER



GWI.

6H 37M
YOY: -4.8% (-20M)

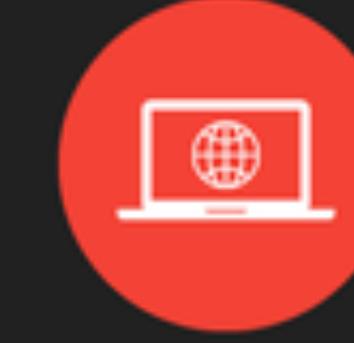
PERCENTAGE OF USERS
ACCESSING THE INTERNET
VIA MOBILE DEVICES



92.3%
YOY: +0.2% (+20 BPS)

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PERCENTAGE OF USERS
ACCESSING THE INTERNET
VIA COMPUTERS AND TABLETS



65.6%
YOY: -7.9% (-560 BPS)

PERCENTAGE OF THE
TOTAL URBAN POPULATION
THAT USES THE INTERNET



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78.3%

PERCENTAGE OF THE
TOTAL RURAL POPULATION
THAT USES THE INTERNET



45.8%

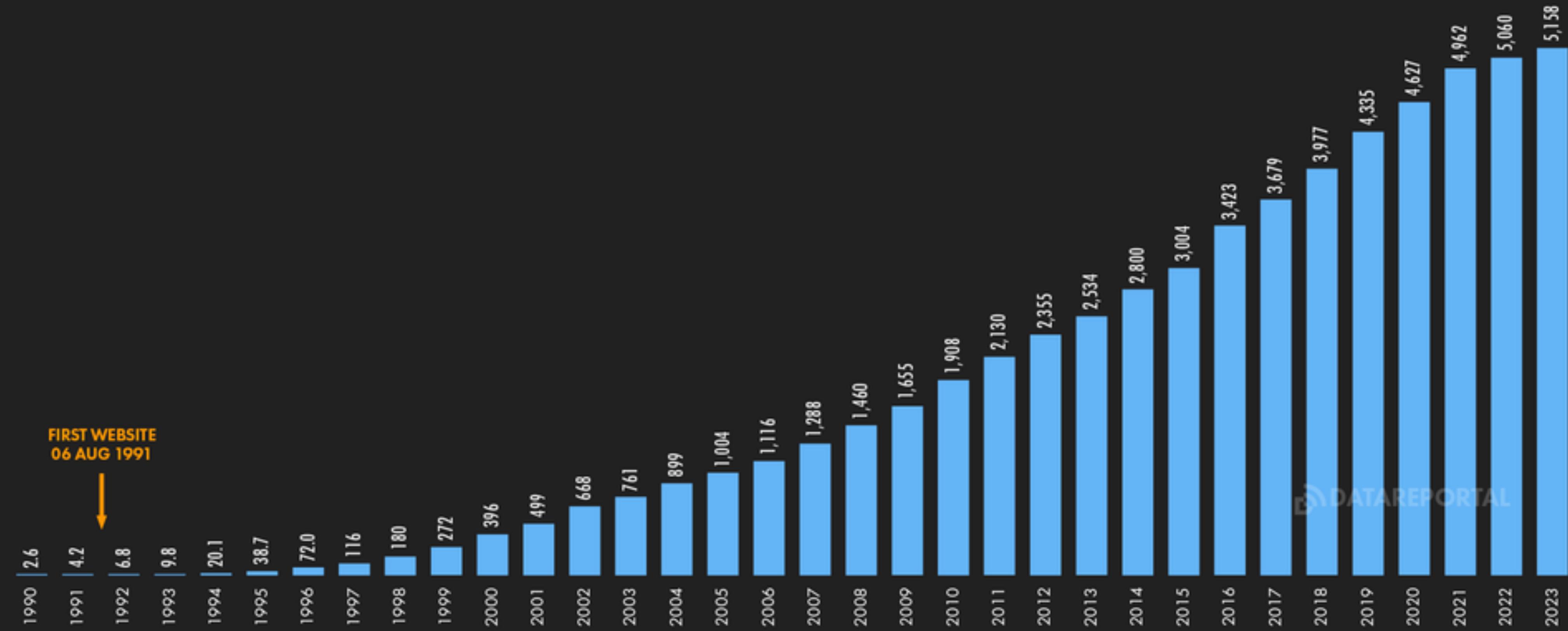
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INTERNET USERS: TIMELINE

NUMBER OF INTERNET USERS BY YEAR (IN MILLIONS)



GLOBAL OVERVIEW



FIRST WEBSITE
06 AUG 1991

DATAREPORTAL

30

SOURCES: KEPiOS ANALYSIS; ITU; GSMA INTELLIGENCE; EUROSTAT; WORLD BANK; GOOGLE'S ADVERTISING RESOURCES; CIA WORLD FACTBOOK; CNNIC; APII; KANTAR & IAMAI; LOCAL GOVERNMENT AUTHORITIES; UNITED NATIONS. **NOTES:** THE TIME REQUIRED TO COLLECT, PROCESS, AND REPORT INTERNET USER RESEARCH DATA MAY MEAN THAT USER FIGURES AND GROWTH TRENDS FOR RECENT PERIODS UNDER-REPRESENT ACTUAL VALUES. SEE [NOTES ON DATA](#) FOR FURTHER DETAILS. **COMPARABILITY:** SOURCE AND BASE CHANGES. FIGURES MAY NOT MATCH OR CORRELATE WITH FIGURES PUBLISHED IN PREVIOUS REPORTS. ALL FIGURES USE THE LATEST AVAILABLE DATA, BUT SOME SOURCE DATA MAY NOT HAVE BEEN UPDATED IN THE PAST YEAR. SEE [NOTES ON DATA](#) FOR DETAILS.

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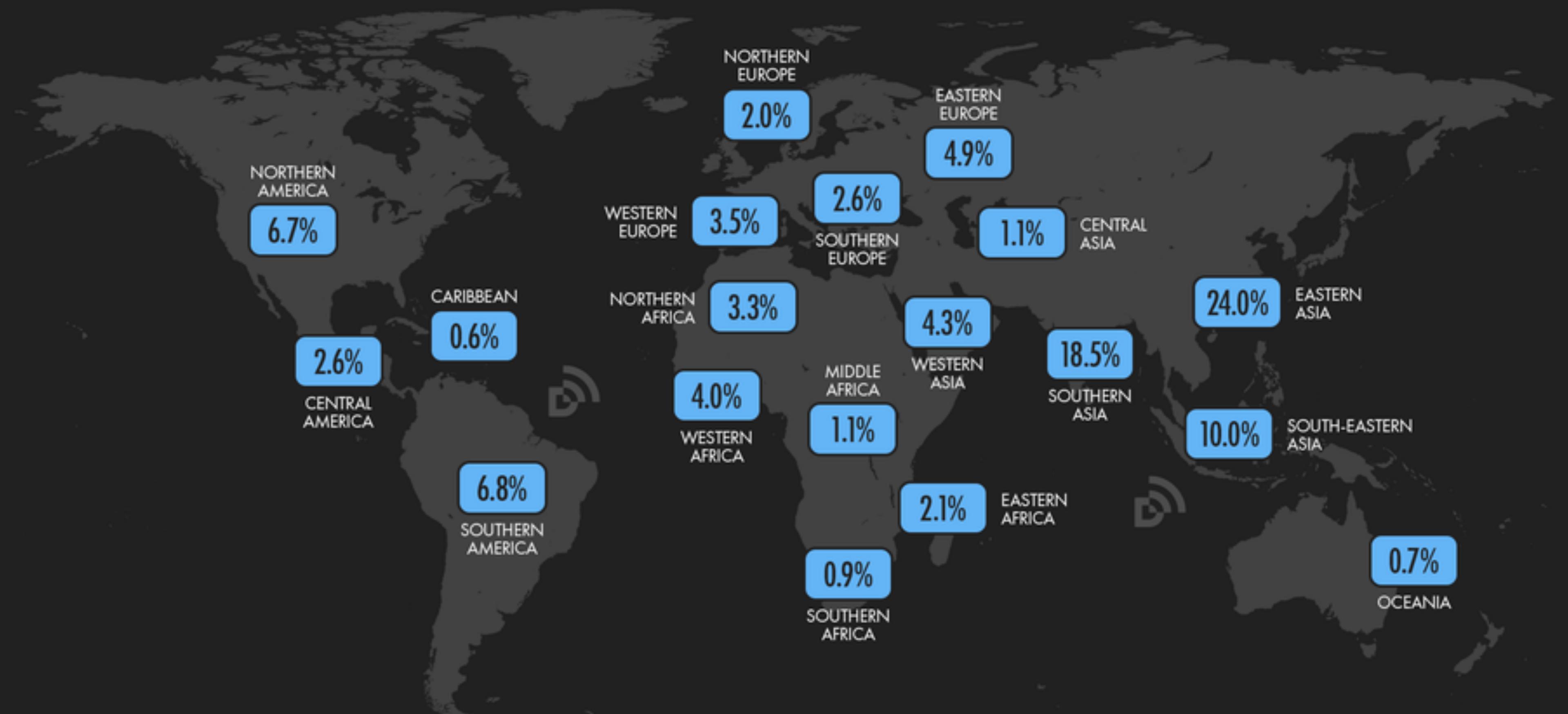
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SHARE OF GLOBAL INTERNET USERS

INTERNET USERS AS A PERCENTAGE OF TOTAL GLOBAL INTERNET USERS



GLOBAL OVERVIEW



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SOURCES: KEPiOS ANALYSIS; ITU; GSMA INTELLIGENCE; EUROSTAT; WORLD BANK; GOOGLE'S ADVERTISING RESOURCES; CIA WORLD FACTBOOK; CNNIC; APJI; KANTAR & IAMAI; LOCAL GOVERNMENT AUTHORITIES; UNITED NATIONS. **NOTES:** FIGURES MAY NOT SUM TO 100% DUE TO ROUNDING. REGIONS BASED ON THE UNITED NATIONS GEOSCHEME. **COMPARABILITY:** SOURCE AND BASE CHANGES. ALL FIGURES USE THE LATEST AVAILABLE DATA, BUT SOME SOURCE DATA MAY NOT HAVE BEEN UPDATED IN THE PAST YEAR. SEE [NOTES ON DATA](#) FOR DETAILS.

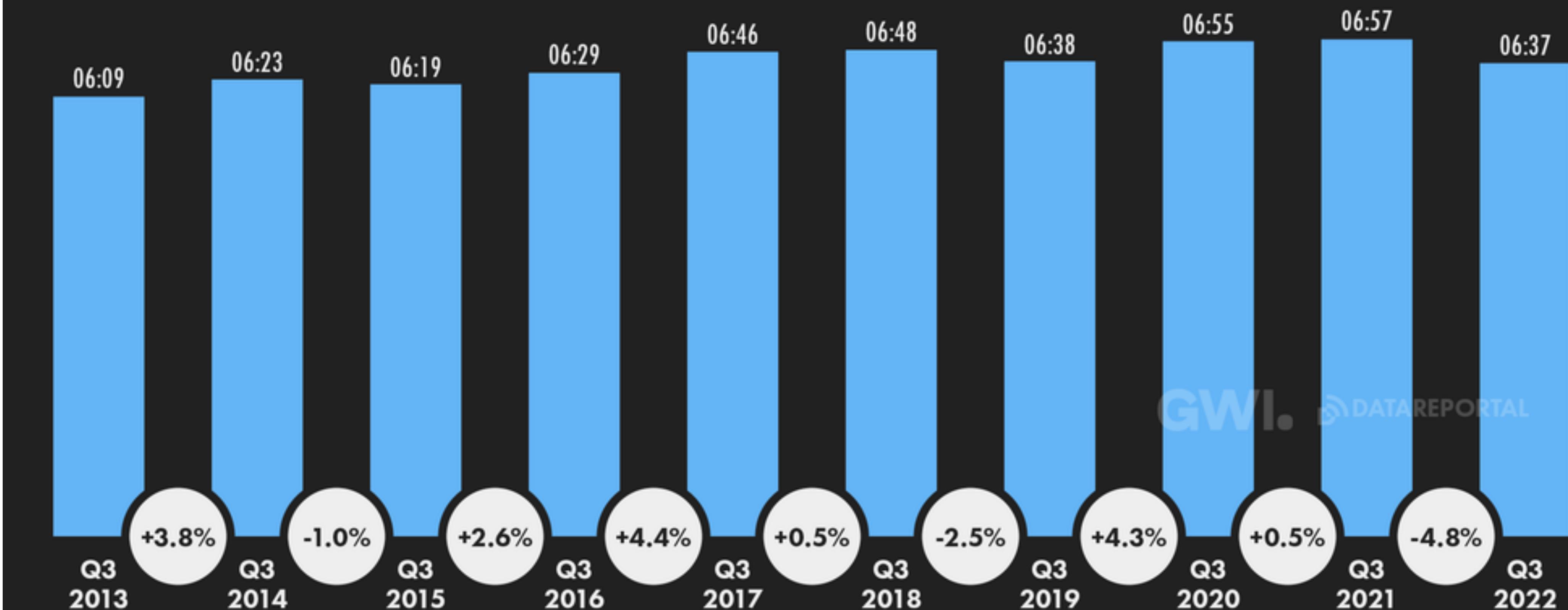
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DAILY TIME SPENT USING THE INTERNET (YOY)

THE AVERAGE AMOUNT OF TIME (IN HOURS AND MINUTES) THAT INTERNET USERS AGED 16 TO 64 SPEND USING THE INTERNET EACH DAY



GLOBAL OVERVIEW



40

SOURCE: GWI (Q3 2013 TO Q3 2022). FIGURES REPRESENT THE FINDINGS OF A BROAD GLOBAL SURVEY OF INTERNET USERS AGED 16 TO 64. SEE [GWI.COM](#) FOR FULL DETAILS.

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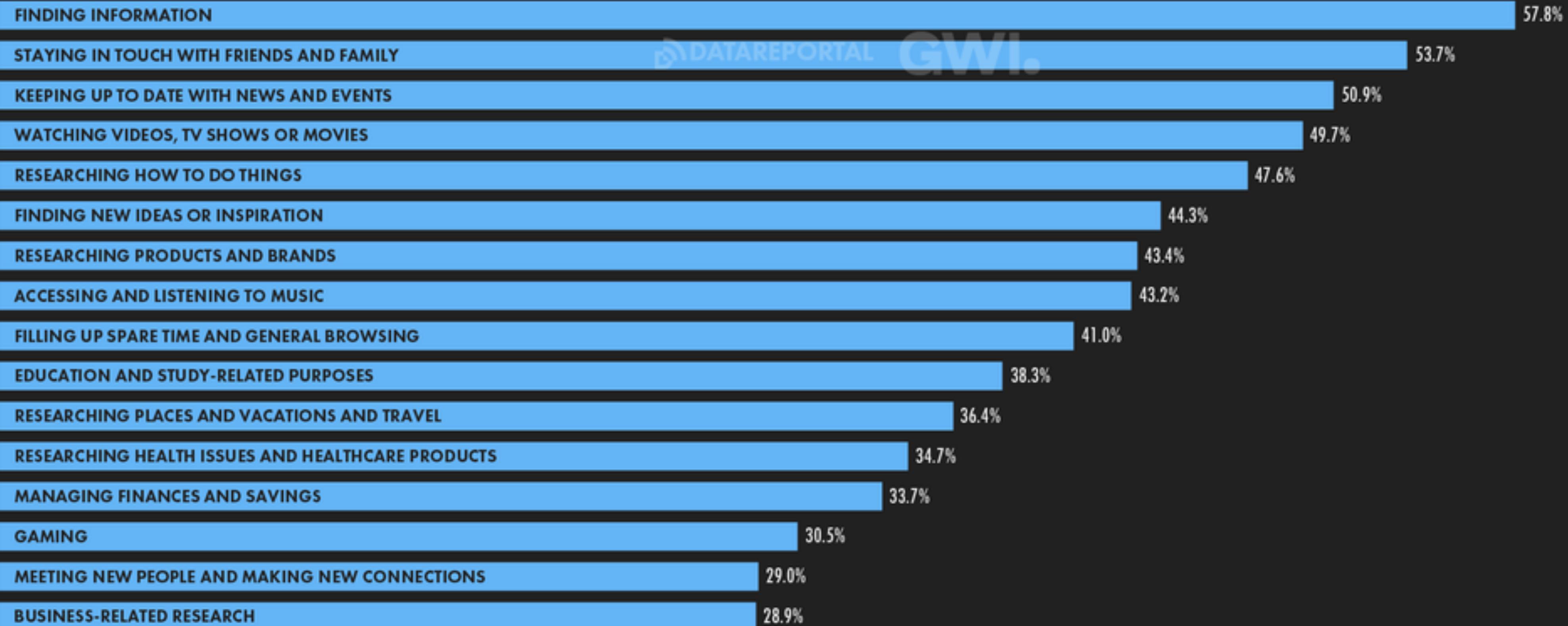
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MAIN REASONS FOR USING THE INTERNET

PRIMARY REASONS WHY INTERNET USERS AGED 16 TO 64 USE THE INTERNET



GLOBAL OVERVIEW



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SOURCE: GWI (Q3 2022). FIGURES REPRESENT THE FINDINGS OF A BROAD GLOBAL SURVEY OF INTERNET USERS AGED 16 TO 64. SEE [GWI.COM](#) FOR FULL DETAILS.

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TOP WEBSITES: SEMRUSH RANKING

SEMRUSH'S RANKING OF THE MOST VISITED WEBSITES, BASED ON WEBSITE TRAFFIC BETWEEN 01 SEPTEMBER AND 30 NOVEMBER 2022



GLOBAL OVERVIEW

#	WEBSITE	TOTAL VISITS (MONTHLY AVE.)	UNIQUE VISITORS (MONTHLY AVE.)	AVERAGE TIME PER VISIT	AVERAGE PAGES PER VISIT	#	WEBSITE	TOTAL VISITS (MONTHLY AVE.)	UNIQUE VISITORS (MONTHLY AVE.)	AVERAGE TIME PER VISIT	AVERAGE PAGES PER VISIT
01	GOOGLE.COM	88.4 B	8.13 B	21M 51S	3.6	11	YAHOO.COM	3.34 B	614 M	17M 36S	3.2
02	YOUTUBE.COM	74.8 B	5.85 B	36M 04S	6.1	12	SPANKBANG.COM	3.02 B	743 M	13M 25S	7.7
03	FACEBOOK.COM	10.7 B	2.48 B	22M 43S	3.0	13	AMAZON.COM	2.70 B	898 M	13M 01S	5.8
04	PORNHUB.COM	10.2 B	2.14 B	10M 35S	6.9	14	FANDOM.COM	2.65 B	803 M	13M 16S	3.1
05	XVIDEOS.COM	8.77 B	1.79 B	12M 10S	7.3	15	XHAMSTER.COM	2.62 B	756 M	14M 06S	6.1
06	TWITTER.COM	8.18 B	2.10 B	21M 55S	1.8	16	YANDEX.RU	2.59 B	314 M	17M 22S	2.6
07	WIKIPEDIA.ORG	6.67 B	1.97 B	11M 09S	2.1	17	WEATHER.COM	2.54 B	1.14 B	7M 56S	1.5
08	REDDIT.COM	4.82 B	1.25 B	17M 53S	3.0	18	TIKTOK.COM	2.18 B	995 M	9M 37S	2.0
09	INSTAGRAM.COM	4.46 B	1.57 B	17M 27S	2.2	19	YAHOO.CO.JP	1.95 B	208 M	21M 53S	5.4
10	XNXX.COM	3.74 B	991 M	10M 55S	7.0	20	LIVEDOOR.JP	1.70 B	107 M	19M 10S	5.0

SOURCE: SEMRUSH. FIGURES REPRESENT TRAFFIC VALUES FOR THE PERIOD BETWEEN 01 SEPTEMBER AND 30 NOVEMBER 2022. NOTE: VALUES IN THE "UNIQUE VISITORS" COLUMN REPRESENT THE NUMBER OF DISTINCT 'IDENTITIES' ACCESSING EACH SITE, BUT MAY NOT REPRESENT UNIQUE INDIVIDUALS, AS SOME PEOPLE MAY USE MULTIPLE DEVICES OR BROWSERS. FIGURES ENDING IN "B" REPRESENT BILLIONS; FIGURES ENDING IN "M" REPRESENT MILLIONS. TIME SHOWN IN MINUTES AND SECONDS. ADVISORY: SOME WEBSITES FEATURED IN THIS RANKING MAY CONTAIN ADULT CONTENT. PLEASE USE CAUTION WHEN VISITING UNKNOWN DOMAINS. COMPARABILITY: SOURCE METHODOLOGY CHANGES. VALUES ARE NOT COMPARABLE WITH PREVIOUS REPORTS.

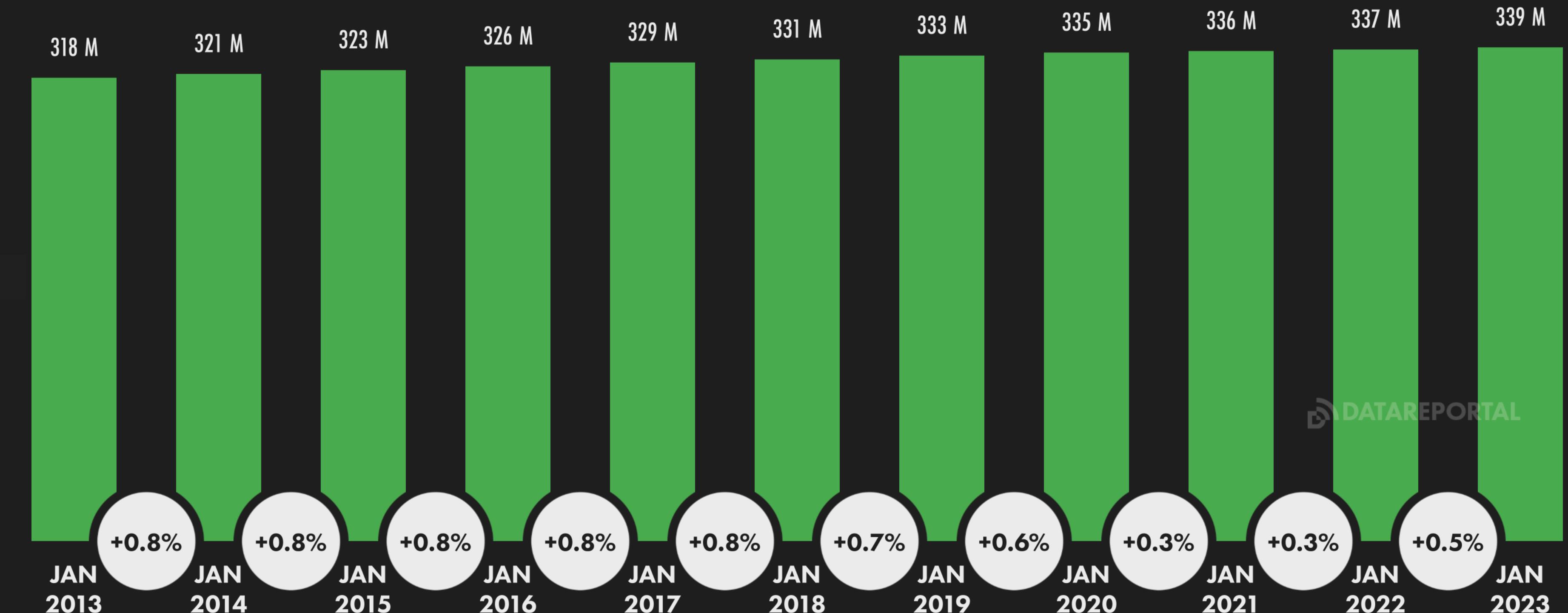
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POPULATION OVER TIME

TOTAL POPULATION AND YEAR-ON-YEAR CHANGE



THE UNITED STATES
OF AMERICA



23

SOURCES: UNITED NATIONS; U.S. CENSUS BUREAU; LOCAL GOVERNMENT AUTHORITIES; KEPIOS ANALYSIS. **NOTE:** WHERE LETTERS ARE SHOWN NEXT TO FIGURES ABOVE BARS, "K" DENOTES THOUSANDS (E.G. "123 K" = 123,000), "M" DENOTES MILLIONS (E.G. "1.23 M" = 1,230,000), AND "B" DENOTES BILLIONS (E.G. "1.23 B" = 1,230,000,000). WHERE NO LETTER IS PRESENT, VALUES ARE SHOWN AS IS.
COMPARABILITY: SOURCE CHANGES AND BASE REVISIONS. FIGURES MAY NOT CORRELATE WITH VALUES PUBLISHED IN OUR PREVIOUS REPORTS.

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Tour of the World Wide Web



Welcome! This is the website for the *Tour of the World Wide Web* course offered in Duke OLLI's Fall 2023 term.

On this website you will find the course [syllabus](#), details about each course session, and resources students may use to supplement their classroom learning experience through additional independent study of the topics covered in the course. Click the hamburger icon (≡) in the upper right hand corner of your browser window to access links to the session pages; use the home icon (⌂) in the upper left hand corner of your browser window to return to this page.

Course Description

The World Wide Web is a vast and diverse space. Since its inception in the early 1990s, it has grown to include an estimated 2 billion websites containing 7,500 terabytes of information. Today, approximately 5 billion people spend about 6 1/2 hours accessing the web daily. We routinely use the web to communicate, collaborate, access information, shop, manage our finances and entertain ourselves. This course is designed to enhance students' understanding of technologies enabling the web in ways that help us better navigate it. We will review the history of the web and key ideologies that influence its design. With this framework in hand, we will explore the web in more depth, covering social media, cryptocurrency, artificial intelligence, cybersecurity and the dark web. While this lecture-based course will explore some case studies, students can expect to participate in lively discussions about the web's social and cultural impacts.