



Digital Skills

*Current Issues in Research
of Media and Audiences*

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Who are these people?

Štěpán

PhD student

Convergent audiences and the distribution of audiovisual content

Research specialist

Department of Media Studies and Journalism

Project manager/ Account Manager

MEDIAN, s.r.o.



Who are these people?

Natálie

Research specialist

Interdisciplinary Research Team on Internet and Society (IRTIS)

PhD student

Digital skills of children and adolescents

Founder

Internet Governance Forum (IGF) Czech Republic

Youth Envoy

International Telecommunication Union, United Nation

+ Ambassador for **Brave Movement** (ECLAG); **ICANN** Fellow & EURALO, **ISOC** and **WHO** member



Ending Child Sexual Abuse Online



Generation Connect



IGF Internet Governance Forum
CZECH REPUBLIC



Join us online!



ICT penetration policy

1977 - Apple II

1981 - IBM PC

1993 - WWW goes public



Haves vs. have-nots (NTIA, 1995)
Demographic predictors

Access!

The digital divide

Digital divide



01

I. level

Access to digital technology

World perspective

2.9 billion people remain offline

-> 96% of whom live in developing countries

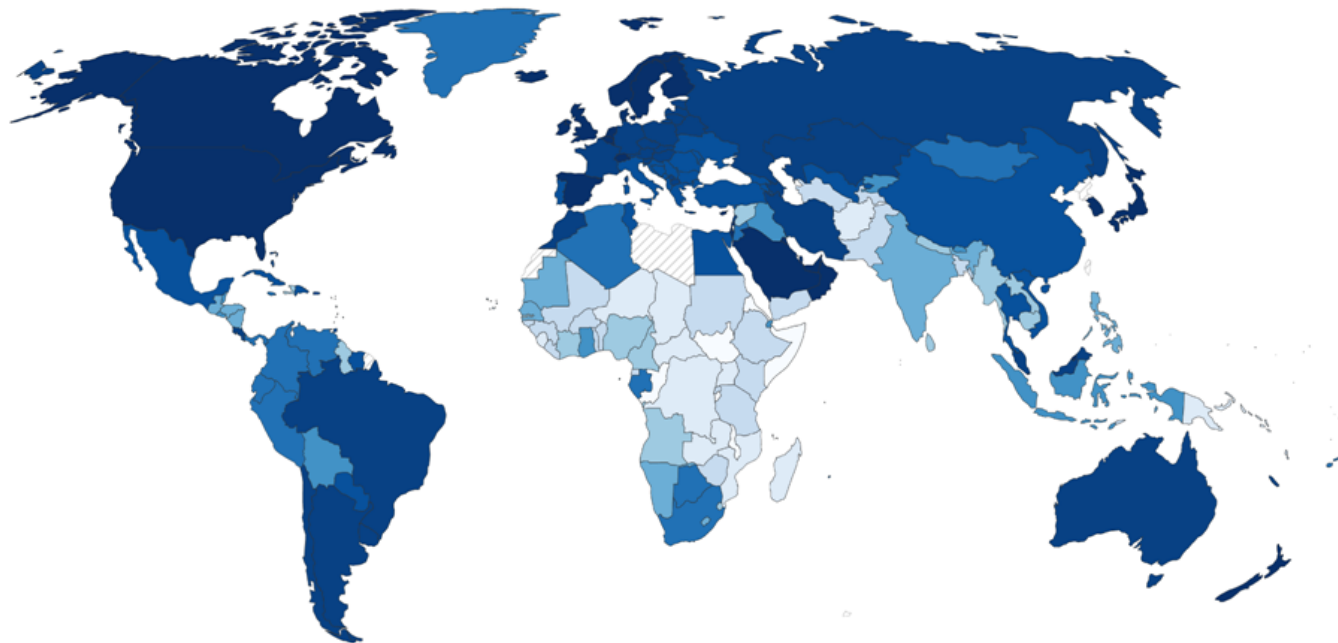
Those who remain unconnected face multiple barriers, including a lack of access:

approx 390 million people are not even covered by a mobile broadband signal



Share of the population using the internet, 2020

Share of individuals who have used the Internet from any location in the last 3 months.



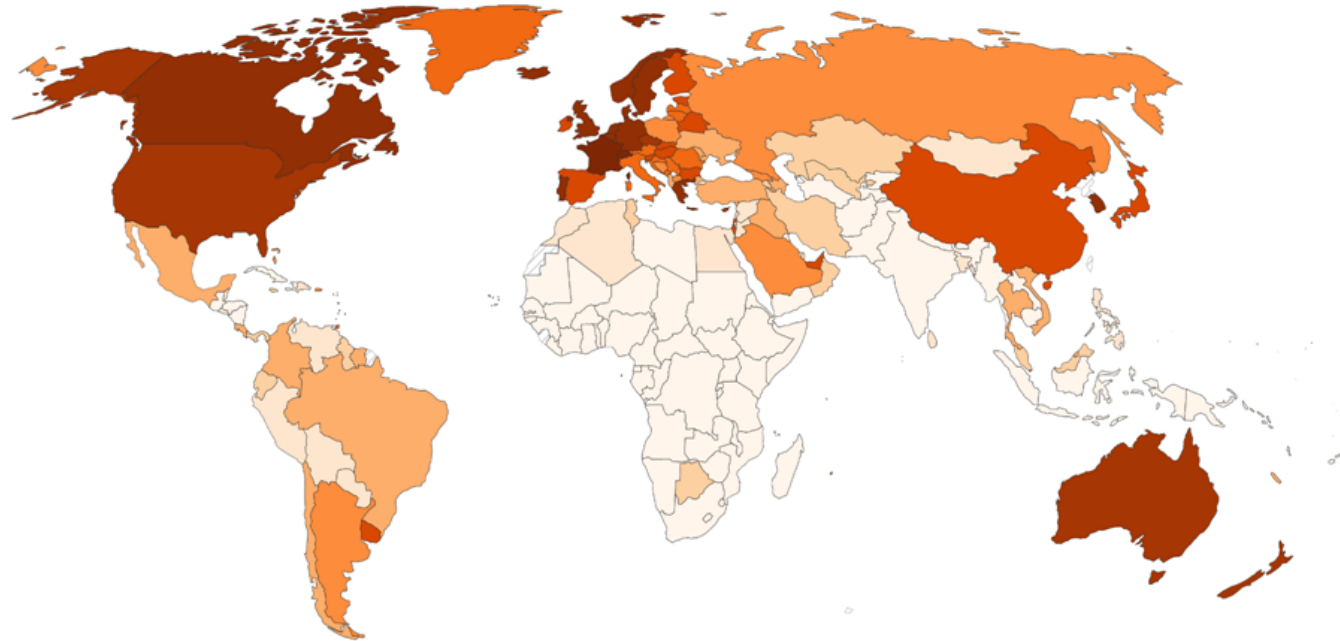
Source: International Telecommunication Union (via World Bank)

OurWorldInData.org/technology-adoption/ • CC BY

Note: Internet usage includes computers, mobile phones, personal digital assistants, games machines, digital TVs, etc.

Broadband subscriptions per 100 people, 2020

Broadband subscriptions refer to fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 kbit/s.



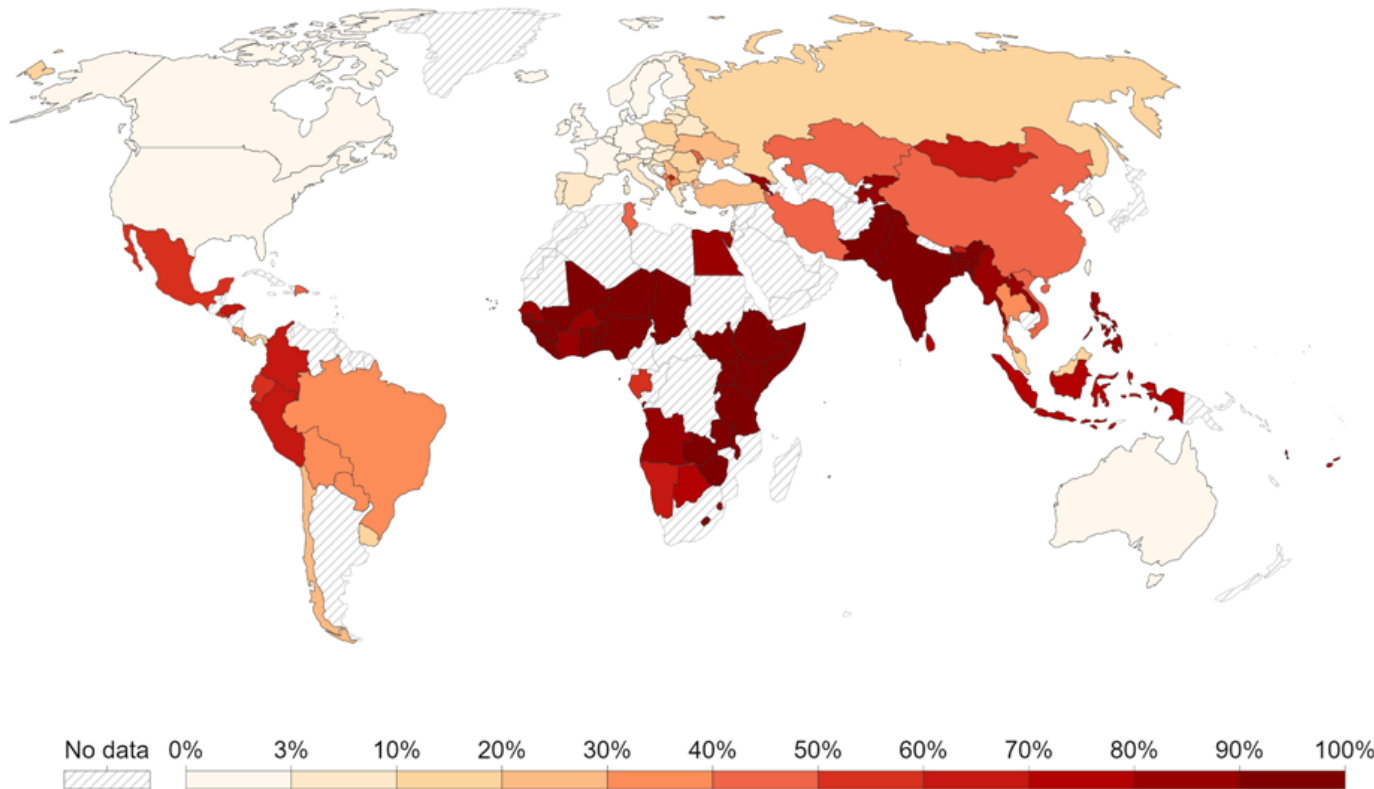
Source: International Telecommunication Union (via World Bank)

Note: For more details on the definition see the sources tab.

OurWorldInData.org/internet/ • CC BY

Poverty: Share of population living on less than \$10 a day, 2020

This data is adjusted for inflation and for differences in the cost of living between countries.



Source: World Bank Poverty and Inequality Platform

Note: This data is measured in international-\$ at 2017 prices. It relates to disposable income or expenditure per capita (exact definitions vary).

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For everyone?

Local infrastructure

Job types

Urban / rural

Working from anywhere is not a technical problem anymore, thanks to digitally enabled remote work, but it remains an economic-institutional one.

(Braesemann et al. 2022)



Gender

globally, 62% of men are using the Internet compared with 57% of women

women remain digitally marginalized in many of the world's poorest countries

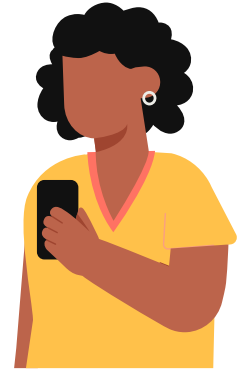
(ITU, 2021)

Gender digital divide

62%



57%



Age

=> generational gap

71 % of the world's population aged 15-24 is using the Internet, compared with 57 % of all other age groups

71 %

57 %



On the global scale, in 2020, young people were 1.24 times more likely to connect than the rest of the population

Digital divide(s)



01

I. level

Access to digital technology

02

II. level

Gaps in skills and usage

03

III. level

Differences in outcomes

What are digital skills?

Digital Skills

The ability to use information and communication technologies in a way that helps achieve useful and quality results in everyday life

increase the benefits of using ICTs

reduce the potential risks of using ICTs



(Helsper et al., 2020; ITU, 2018)

How do we use them?



Communication

Content Creation

Leisure

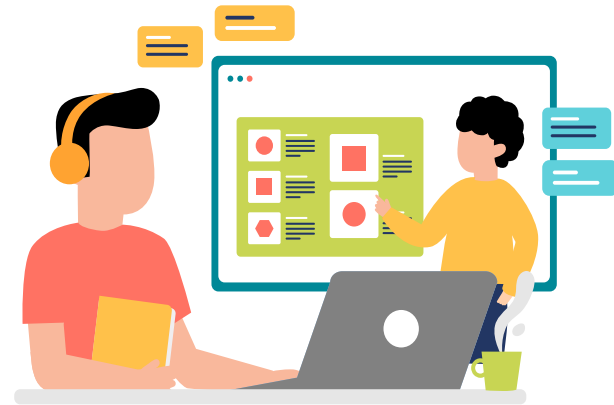
Work/Education

Digital skills in our lives

Changes - in education, shopping, leisure...

Often necessary for performing basic tasks

Would it be possible to study at Masaryk University without having basic digital skills?



Digital Immigrants

born before the widespread adoption of digital technology



Digital Natives

born after the widespread adoption of digital technology

Not all children born today are digital natives by default!

...and what about Covid?



A **digital divide** was exposed during the pandemic with **60%** of adults lacking the digital skills required to work, learn and access critical services online.



**What can we do about
this?**

The role of significant others in establishing user practices

Networked individualism

Easing of traditional formal ties

Internet, mobile devices



Social capital

Bridging vs. bonding ties

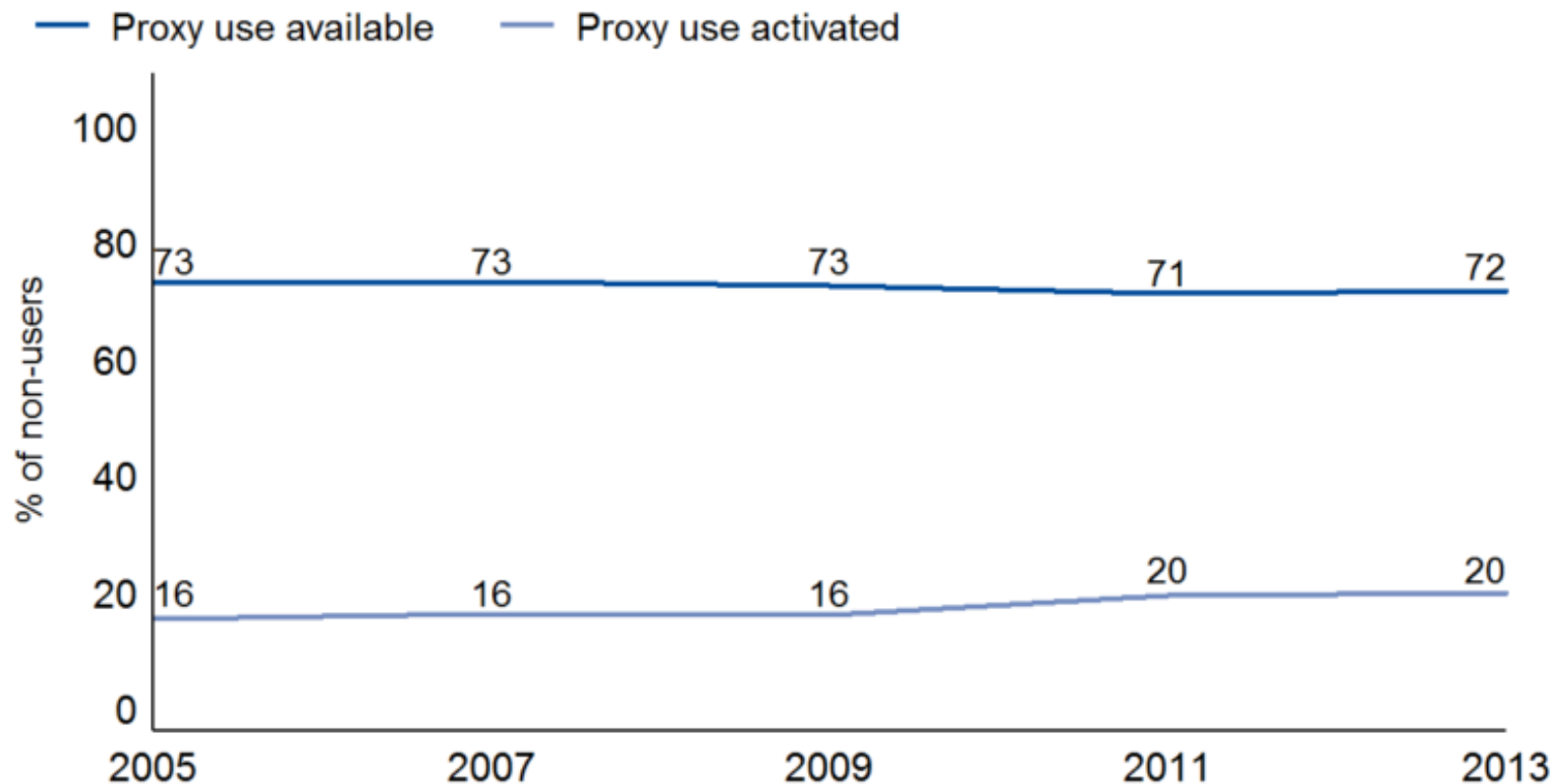


Social homophily

The consequence of the unequal distribution of skills and of the different use of support sources is an unequal distribution of the benefits the Internet has to offer.

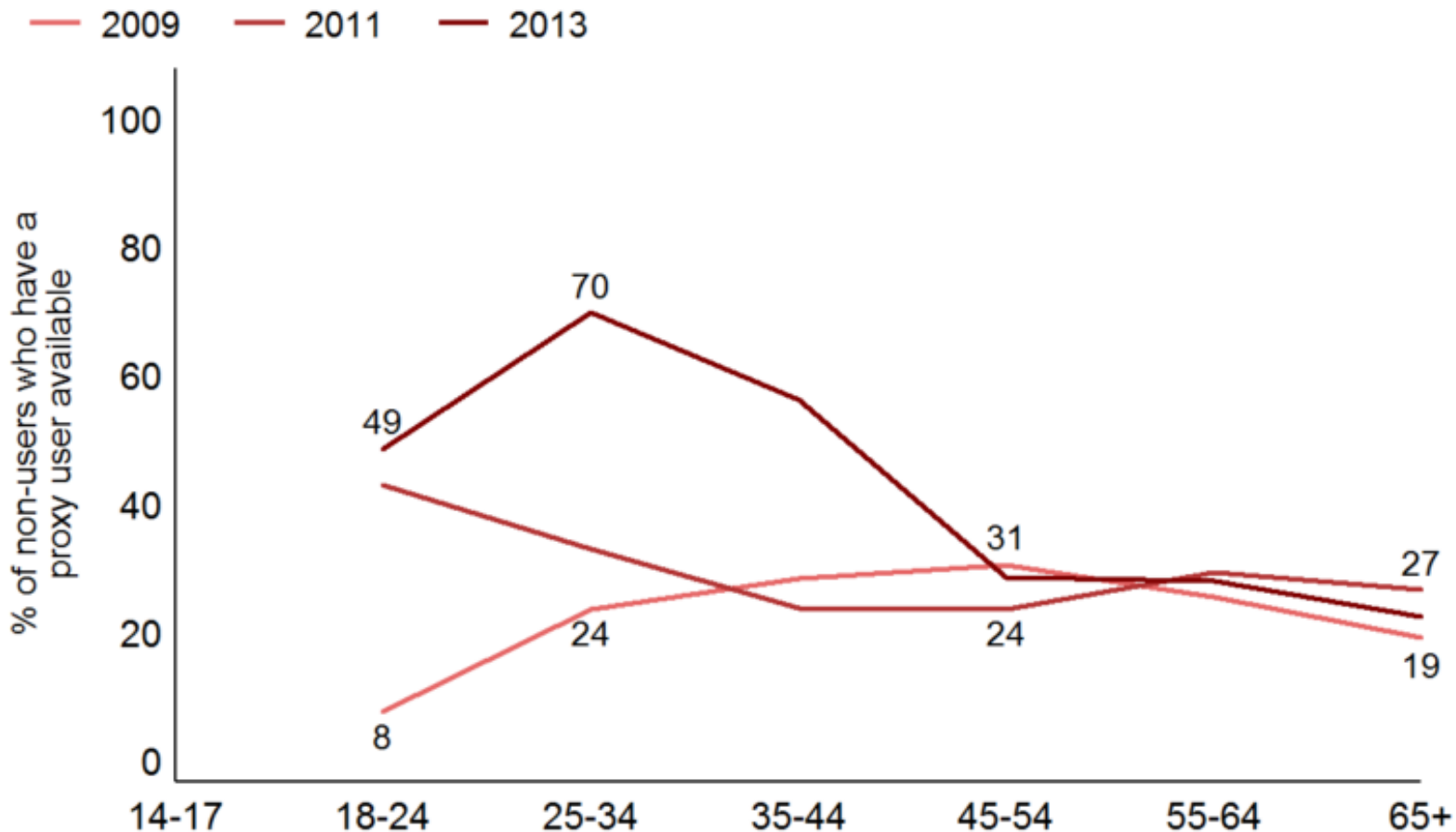
(van Deursen, Courtois, and van Dijk 2014)

Availability and Activation of Proxy Internet Use by Year



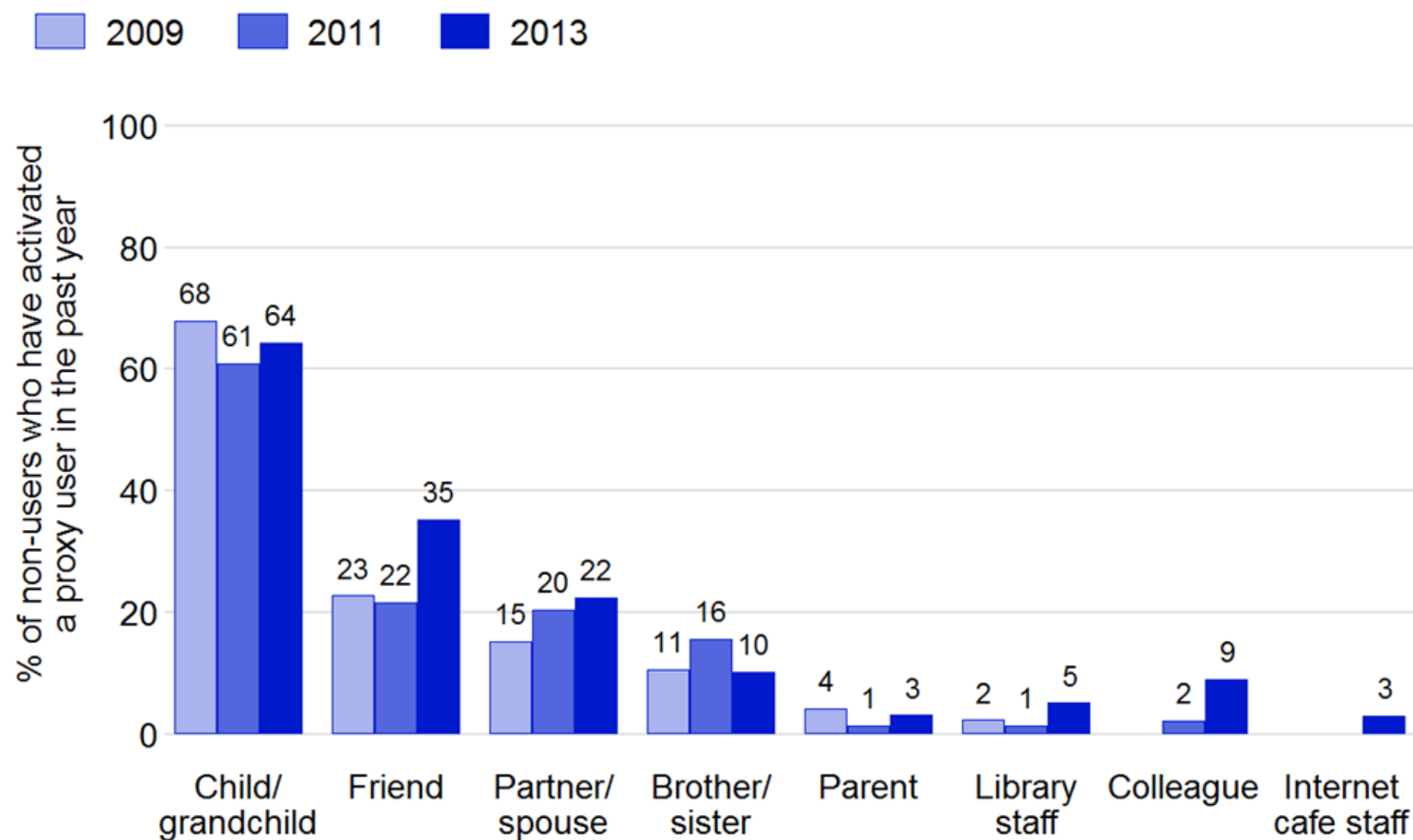
Non-users. OxIS 2005 N=709; 2007 N=649; 2009 N=471; 2011 N=466; 2013 N=483

Proxy Use Activation by Age



Non-users. OxIS 2009 N=471; 2011 N=466; 2013 N=483

Activated Proxy Internet Users by Year

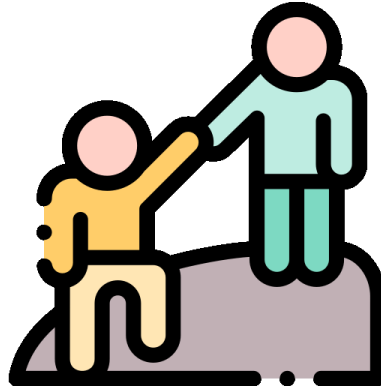


Non-users. OxIS 2009 N=471; 2011 N=466; 2013 N=483

Forms of help

Warm experts

Proxy users



**Are digital skills always
beneficial?**

Double-edged weapon?

CATFISHING

JOB OFFERS

MUSIC

COMMUNICATION

NEWS

ANONYMITY

LEAKED INFO

CAT VIDEOS

PORN

MOVIES

E-SHOPS

CYBERBULLYING

DARK WEB

BETTING

WEATHER FORECAST

Double-edged weapon?

Most children exposed to porn by age 12, study says

By CNN Newsroom staff

Published: Jan. 10, 2023 at 4:34 PM SEČ

My kids spent £600 on their iPads without my knowledge

Mum's warning to parents after her daughter was groomed

An Australian mum has shared the threat her daughter received after being groomed by an online perpetrator.
Warning: Confronting

Jessica Wang

🕒 2 min read February 20, 2023 - 11:43AM NCA NewsWire

Mother reveals 8-year-old ordered AK-47 from dark web, says he started hacking at a young age

An 8-year-old boy's secret involvement in cybercrime, including purchasing an AK-47 on the dark web, sheds light on the need for parental vigilance and education about online activities for children. This shocking story serves as a reminder of the importance of guiding and protecting our youth in the digital world.

▶ Listen to Story

🗉 Share



More skilled people
use more online
opportunities

More skilled people
use more online
opportunities

Those who spend
more time online,
encounter more risks



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higher levels of digital skills are associated with more exposure to risky and potentially harmful online content

(Donoso et al., 2020)



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specific digital skills might in turn act as protective factors against risks

(van Deursen, 2020;
van Deursen & Helsper, 2017)



Content filtering

Firewall and Antivirus

Password Management

Secure Communication

Phishing Awareness

Software Updates



.... and many more

Harm or not?

Exposure to risky content \neq harm will follow



Harm or not?



Harm or not?



Vulnerabilities and digital skills



How do **digital skills** develop, evolve, and affect **children and young people in vulnerable situations**? Our four studies explore this question.



Digital divide(s)



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III. level

Differences in outcomes

04

IV. level

Differences in treatment

Bias in, bias out

Design, affordances

Algorithm as an objective impartial fact

Knowledge – database – treatment



Take-home message(s)



Digital skills are important for efficient functioning in today's society

Not all digital natives are digital-savvy!

There are several forms of digital inequality, at several levels
(age, gender, country, ...)

To overcome the digital divide, others can help us (...but!)

Digital skills are not solely helpful - they can also lead us to risks

Inequalities should be addressed on both individual and societal levels

**Thank you for your
attention!**



Let's stay in touch!



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