



# 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:

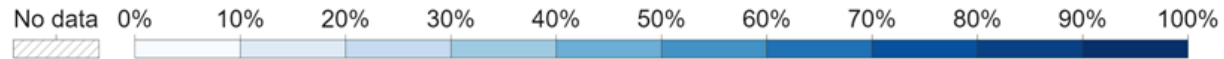
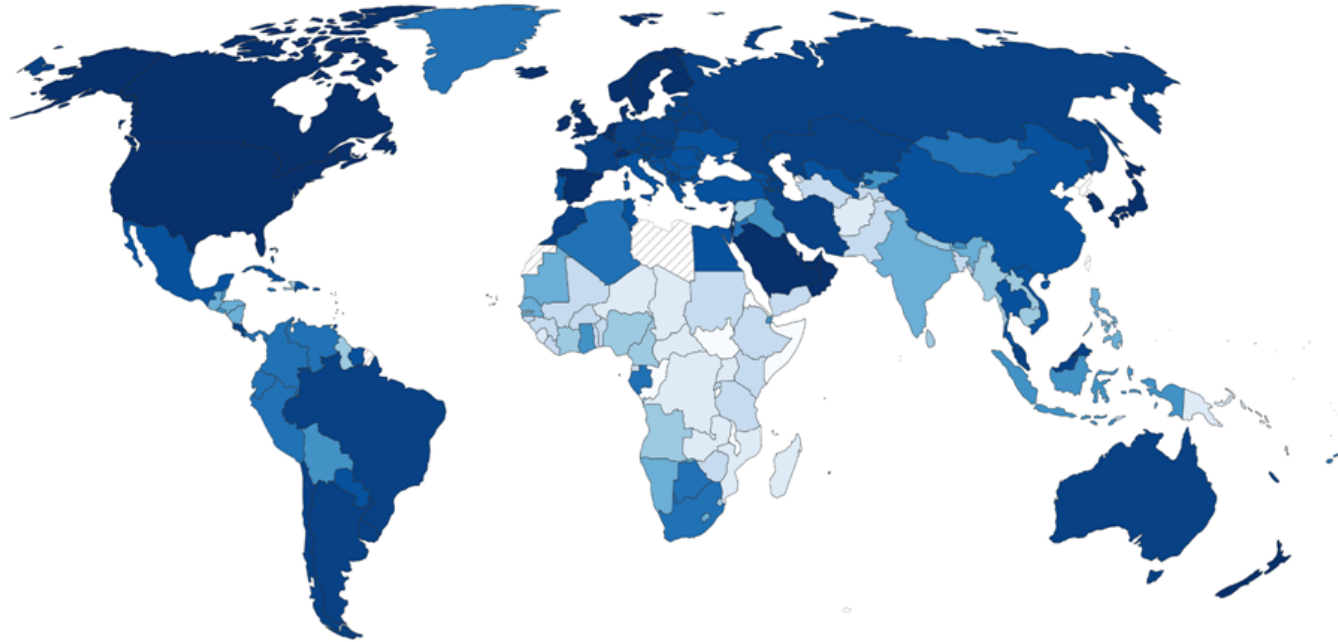
approx 390 million people are not even covered by a mobile broadband signal





# Share of the population using the internet, 2020

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



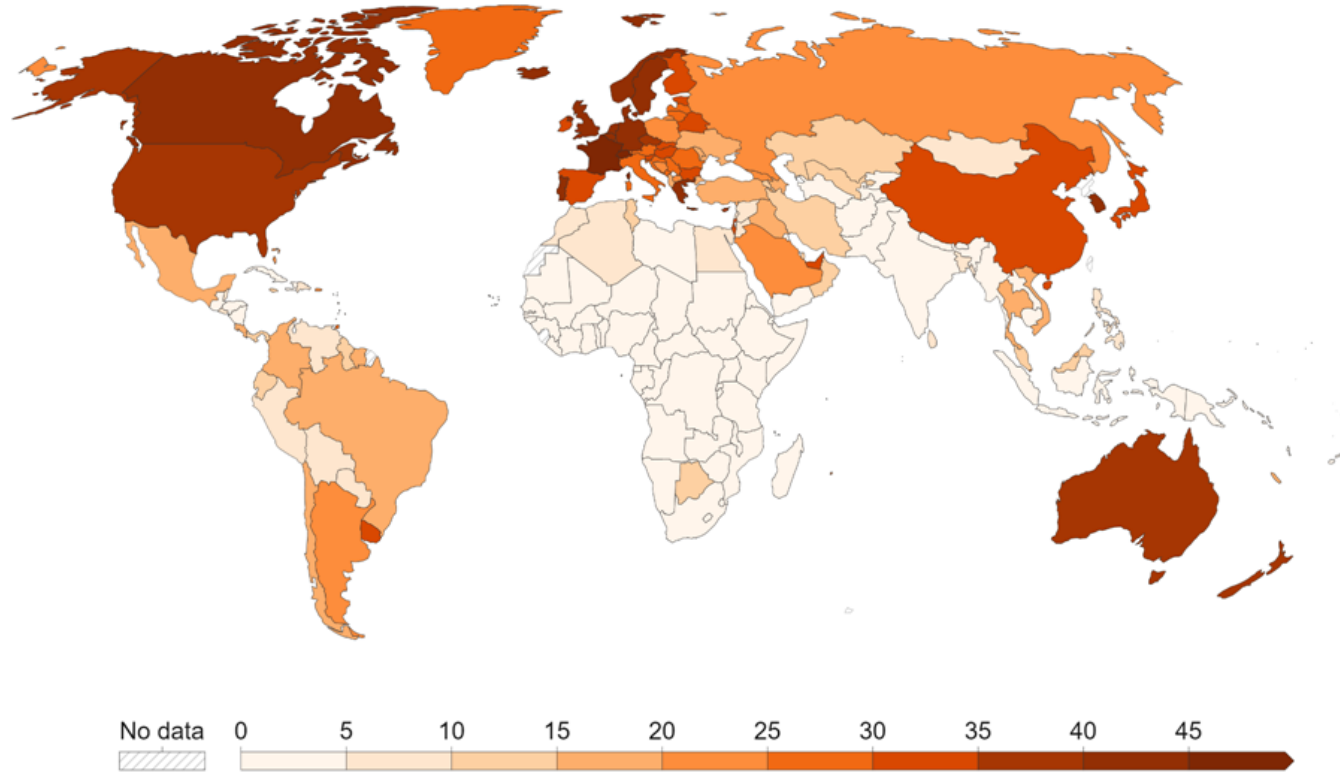
Source: International Telecommunication Union (via World Bank)

[OurWorldInData.org/technology-adoption/](https://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.

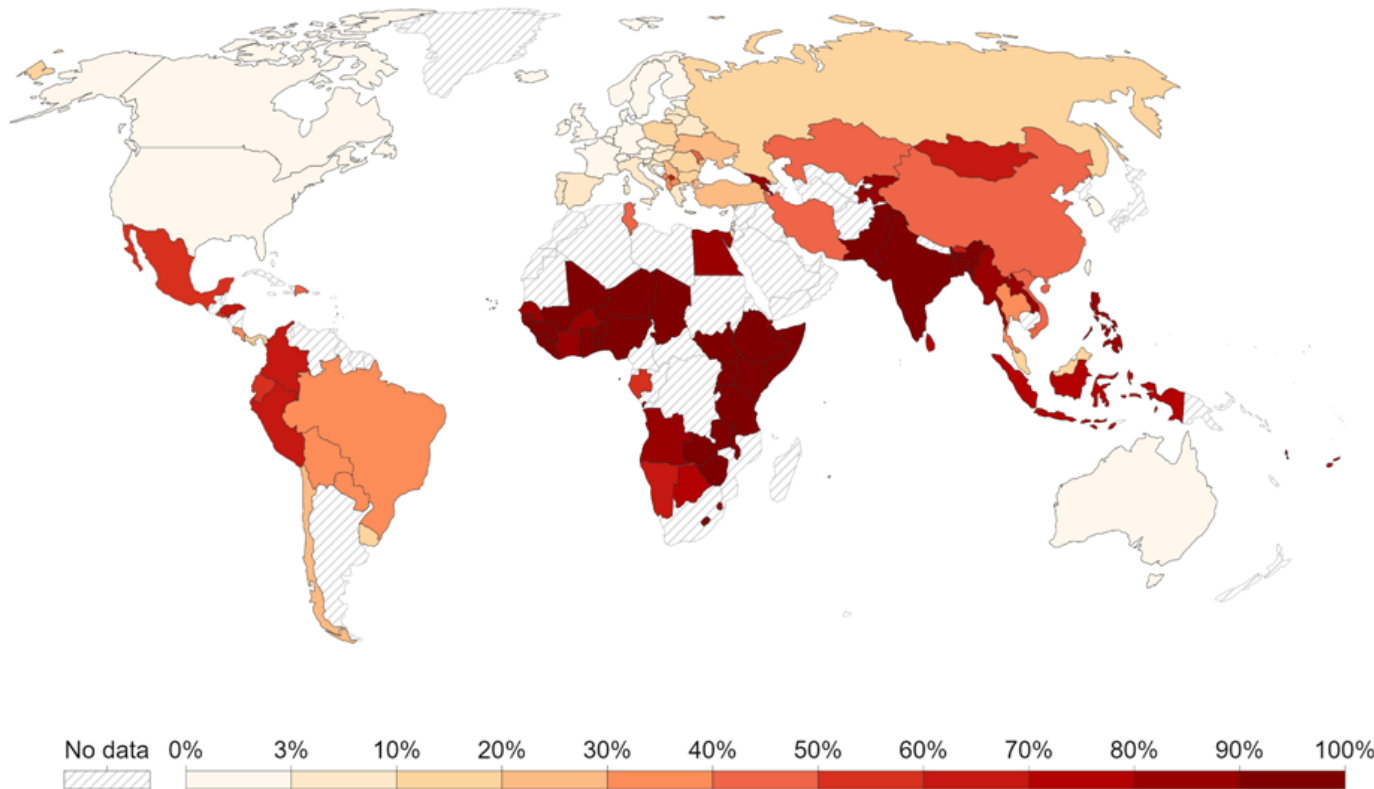


Source: International Telecommunication Union (via World Bank)

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

# 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

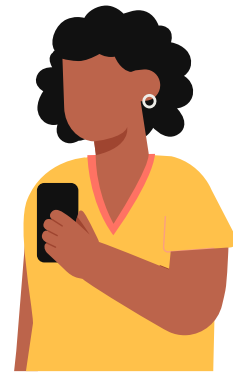
(ITU, 2021)

## 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

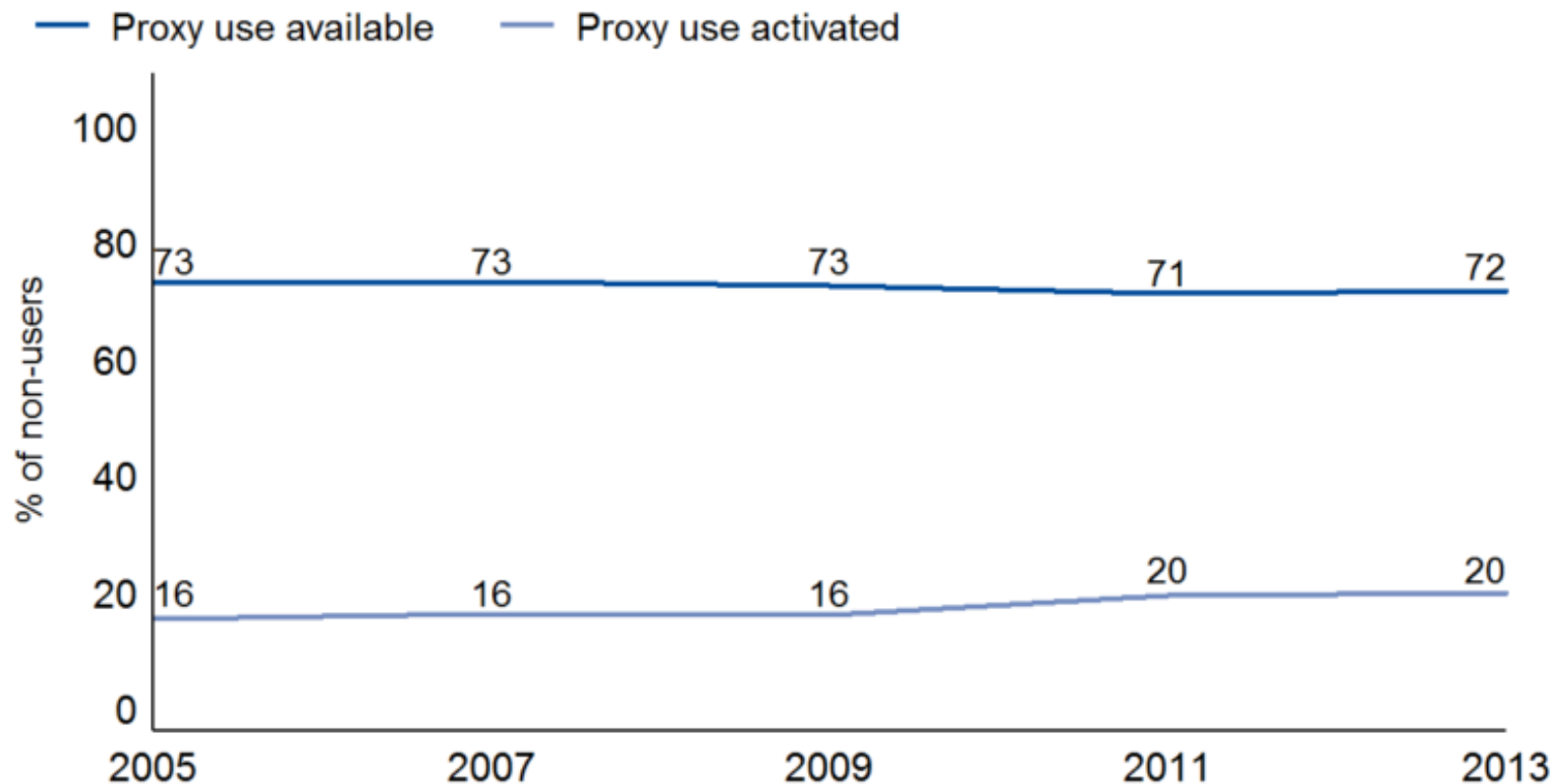


Social homophily

*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.*

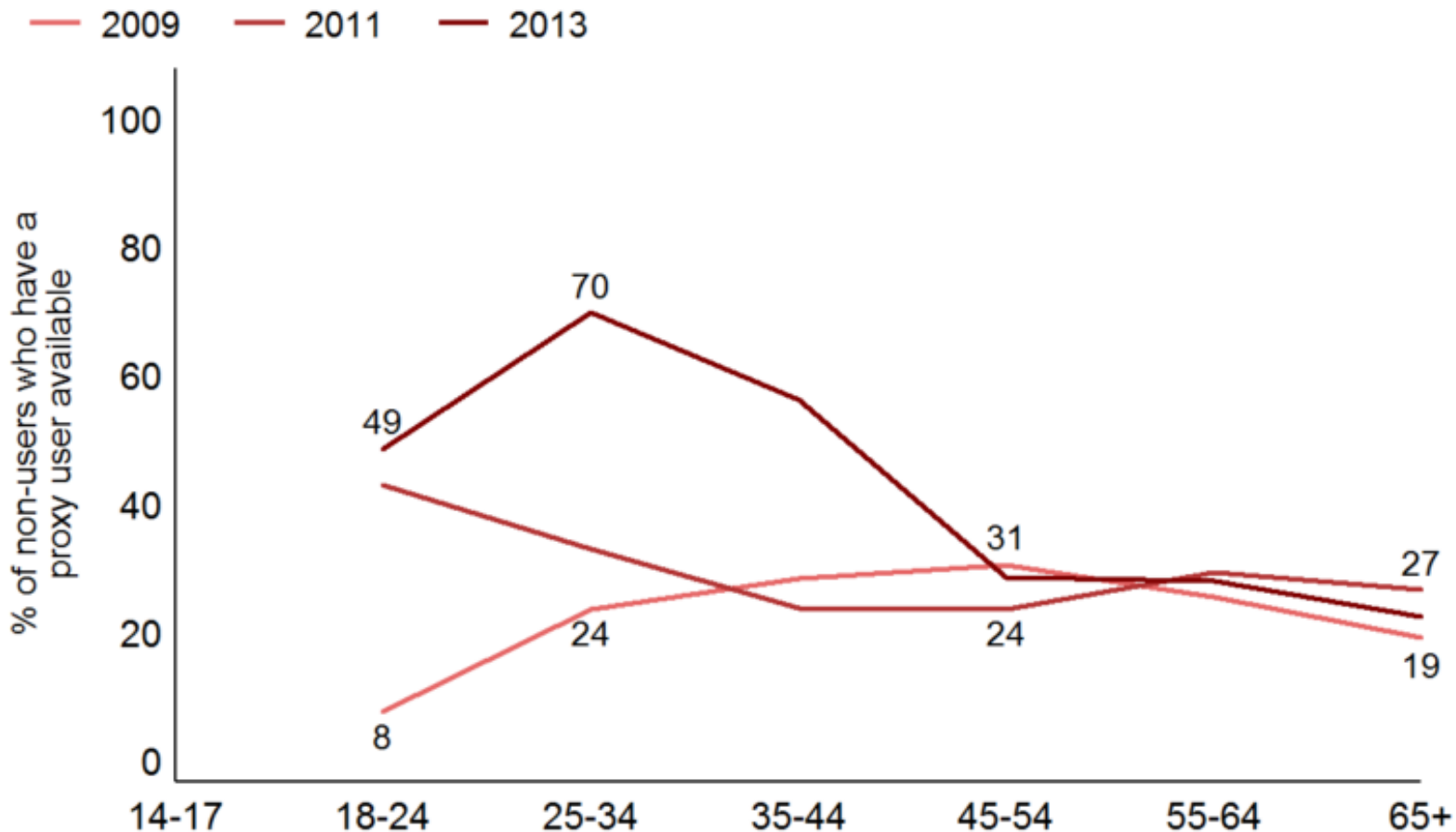
(van Deursen, Courtois, and van Dijk 2014)

# Availability and Activation of Proxy Internet Use by Year



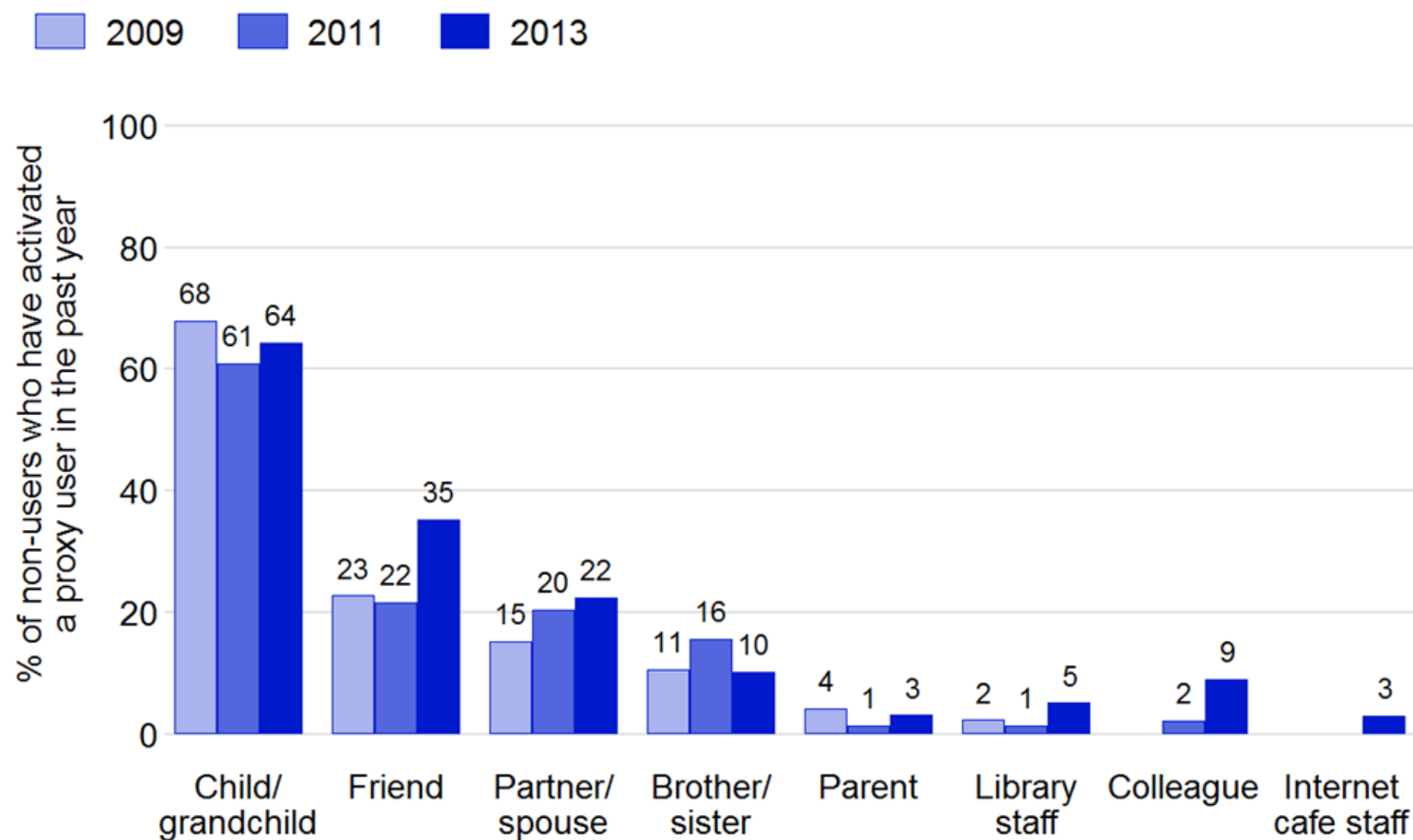
Non-users. OxIS 2005 N=709; 2007 N=649; 2009 N=471; 2011 N=466; 2013 N=483

# Proxy Use Activation by Age



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

# Activated Proxy Internet Users by Year

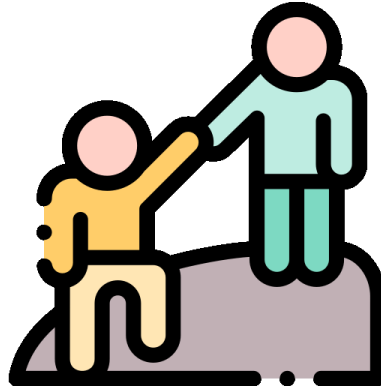


Non-users. OxIS 2009 N=471; 2011 N=466; 2013 N=483

# 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



More skilled people  
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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

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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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