Digital Capacities Index - Quantitative Findings

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Digital Capacities Index - Quantitative Findings

The *Digital Capacities Index* is a pilot survey instrument developed by researchers at Western Sydney University and Google Australia. The survey was administered by Pure Profile in Febuary 2016.

Introduction

We included a total of 158 items measuring (a) frequency of various online behaviour, (b) levels of agreement with statements about digital capacities, (c) perceived importance of online activities and (d) ease of use of digital technologies.

We further distinguished questions into the following key thematic areas, or what we have termed, following James (2014), 'critical issues'. These issues are:

- **Competencies** (42 indicators).
- **Interests** (44 indicators).
- **Resilience** (24 indicators).
- **Social Connectedness** (48 indicators).

These four issues were distilled from a list of nine issues that also included *Engagement*, *Inclusion*, *Policy Environment*, *Infrastructure* and *Consequences*.

Against these four issues, we selected items and scales from existing sources in the literature where possible. In particular we drew from 'Kids Online' (Livingstone et al. 2010), Helsper's (2012) 'Corresponding fields model', a study by Humphry (2014) of mobile use among homeless populations, and indicators compiled by the Young and Well CRC. Other indicators were developed by the *Digital Capacities Index* team.

A large number of candidate scales were distilled down to the current list after two day-long workshops, and testing of the survey.

Demographics

The survey included a total of 2,157 participants. We requested the survey provider provide a panel in terms of age groups, gender and geographic regions. As the panel provider recruited participants online, our pilot sample is expected to be skewed towards Australian citizens and families with comparatively high digital capacities. This caveat is signficant to the interpretation of our results below.

Age

Participant ages ranged from 12 to 91, with a median value of 42.

Figure 1 provides more detailed age demographics:

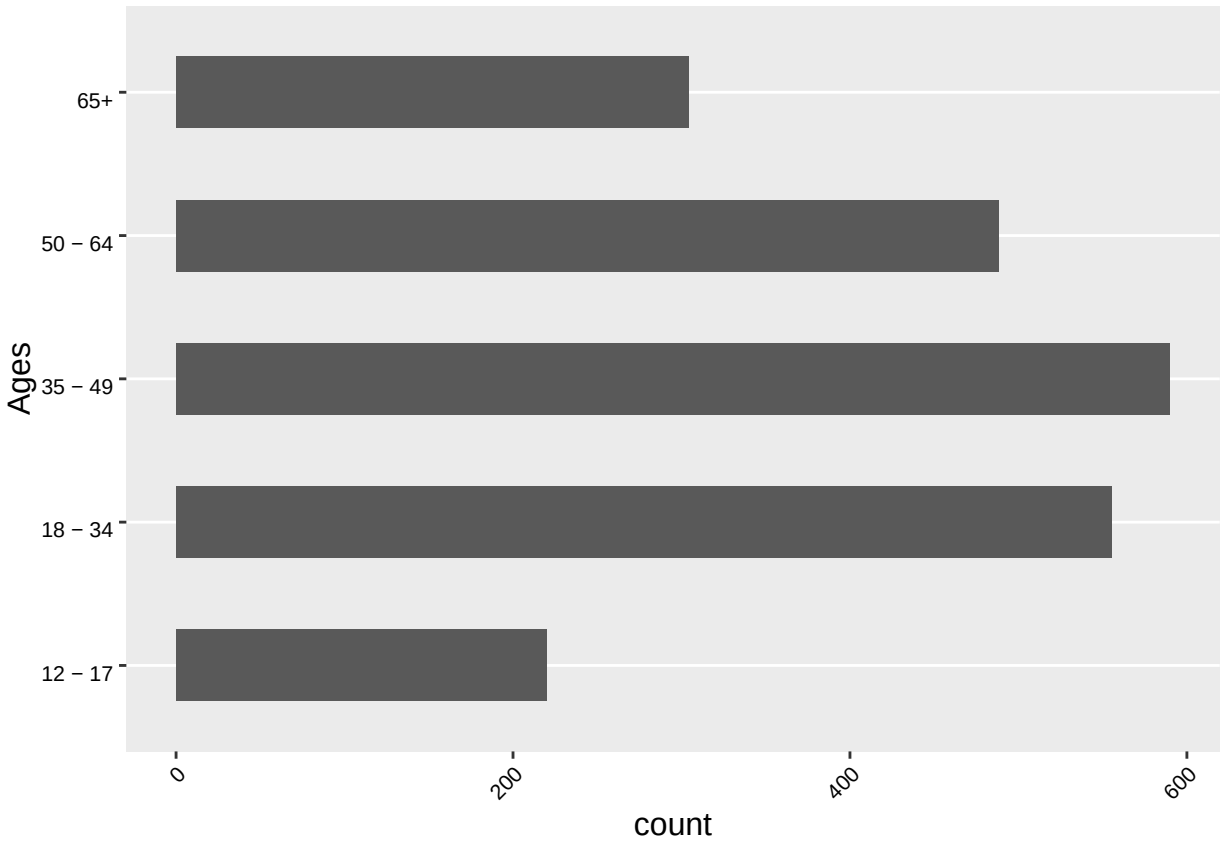


Figure 1: Age Frequency

These show participants' ages correspond approximately to Australia's adult demographic. 89.8% of participants were aged 35-54.

Gender

Participant gender is roughly evenly distributed. The survey included 1,105 (51%) women; 1,048 (49%) men; and 4 (0.19%) identifying as 'Other'.

Gender demographics are distributed, as show in Figure 2:

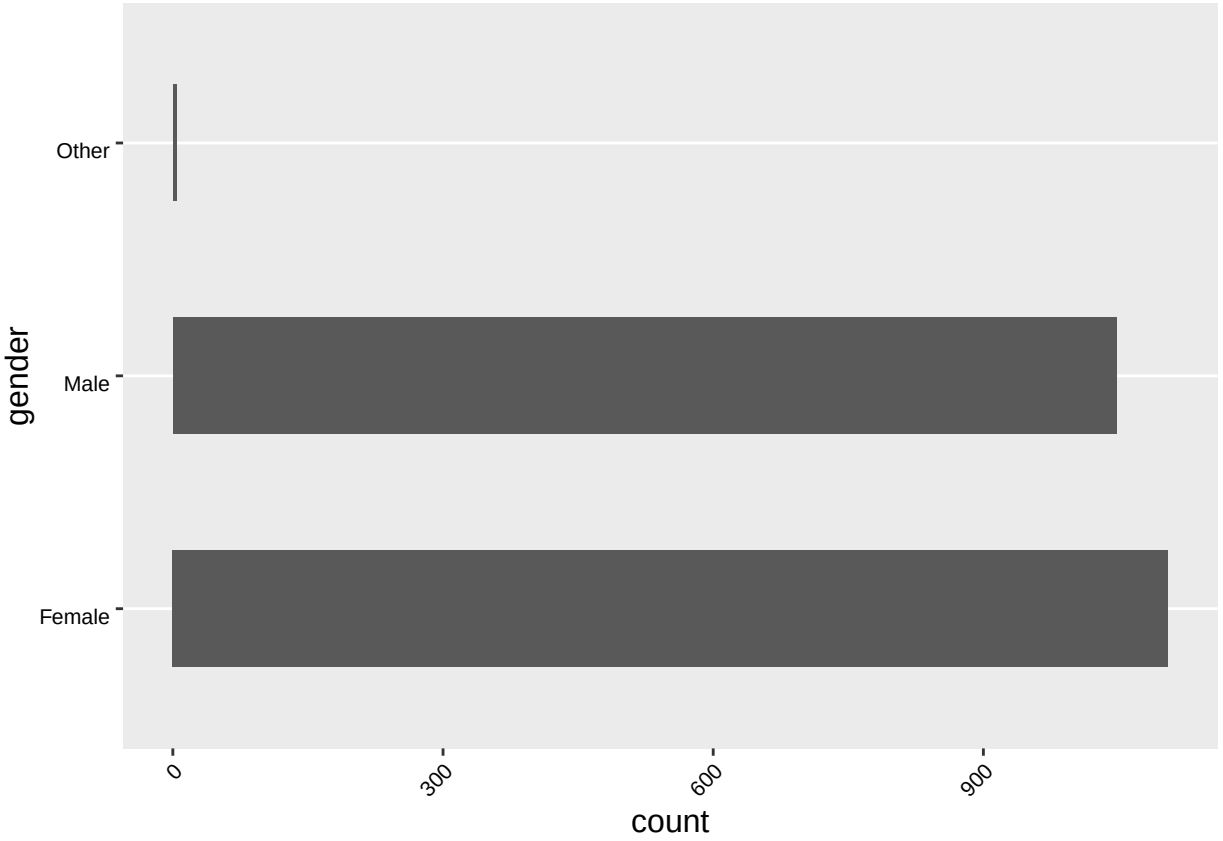


Figure 2: Gender Frequency

Combined Age and Gender

Combined age and gender demographics are distributed as per *Figure 3:

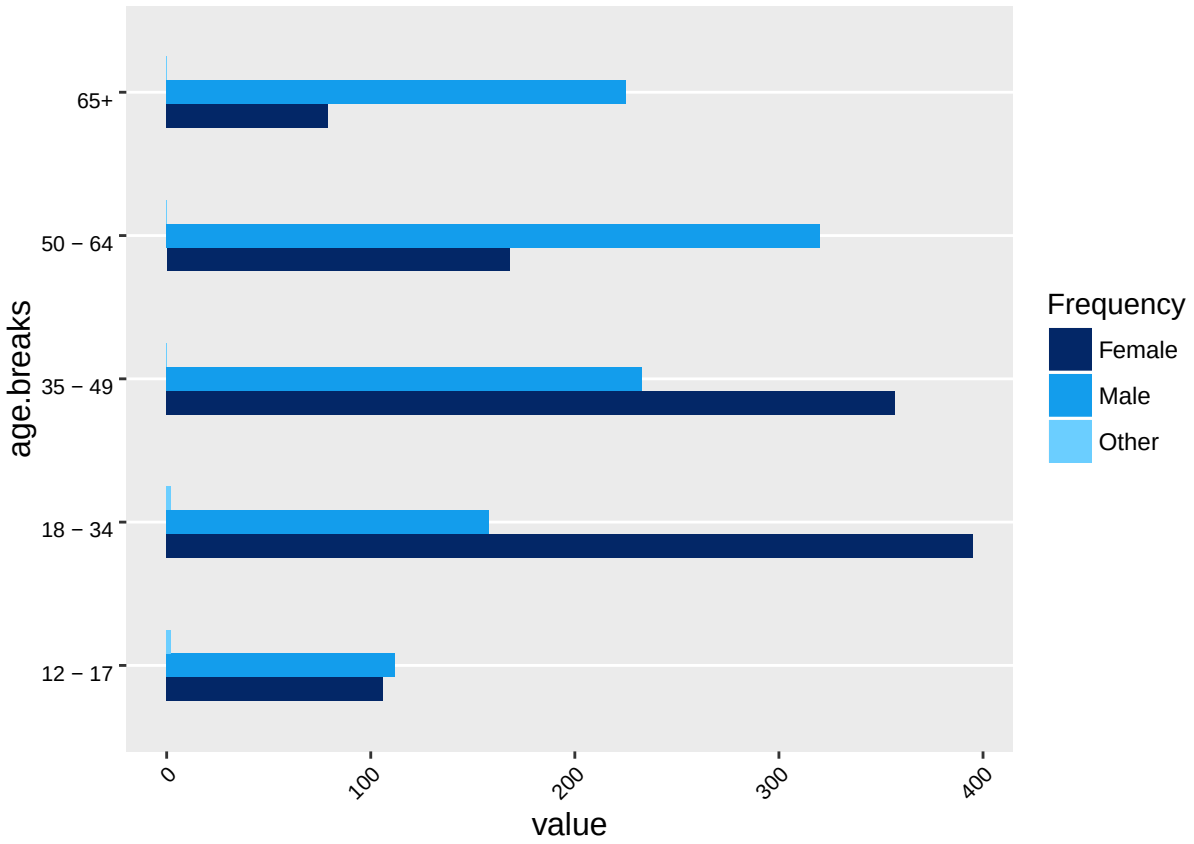


Figure 3: Age & Gender Frequency

These figures approximate to Australia's adult age distribution, as reported by the ABS in 2014 in **Figure 4** below, though with a considerably higher skew towards younger women and older men.

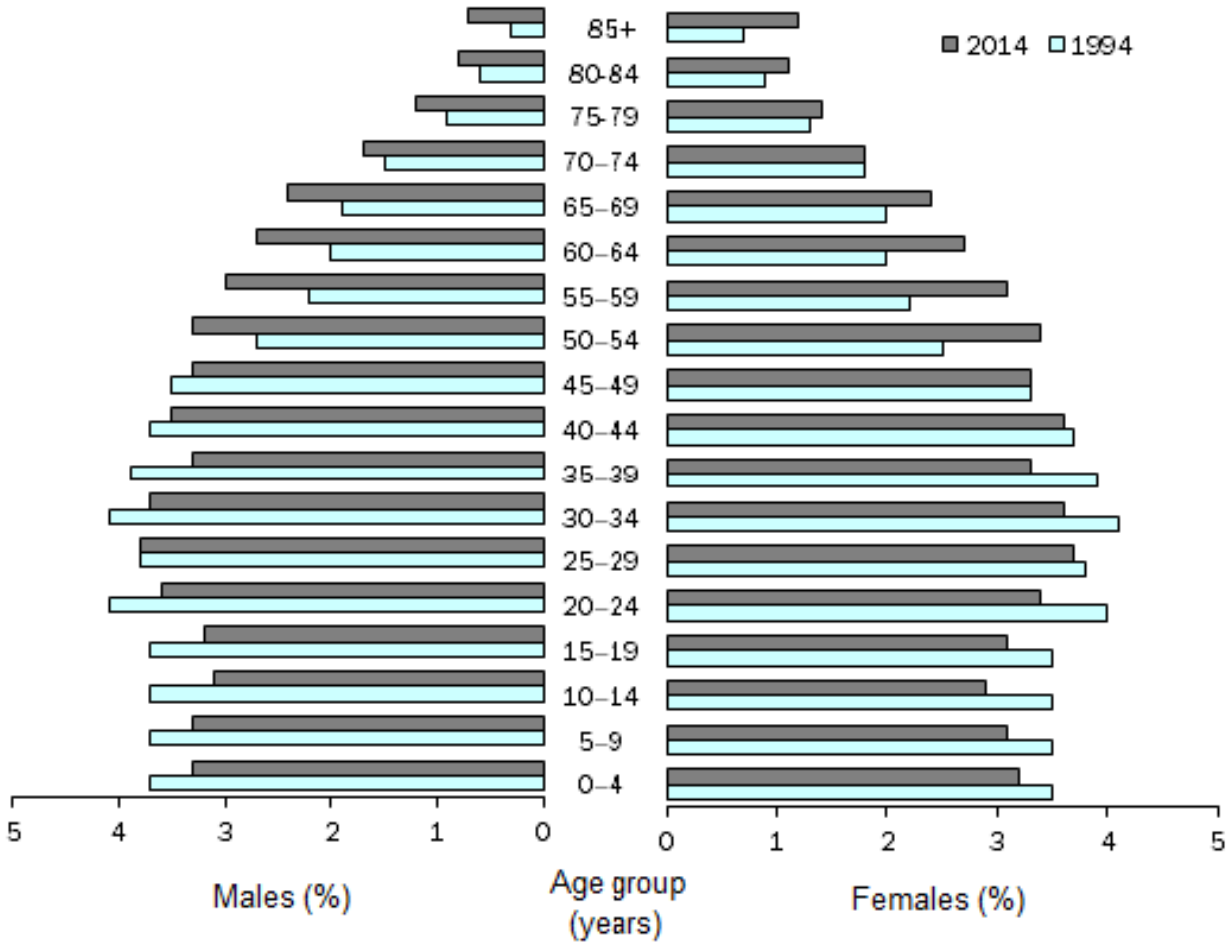
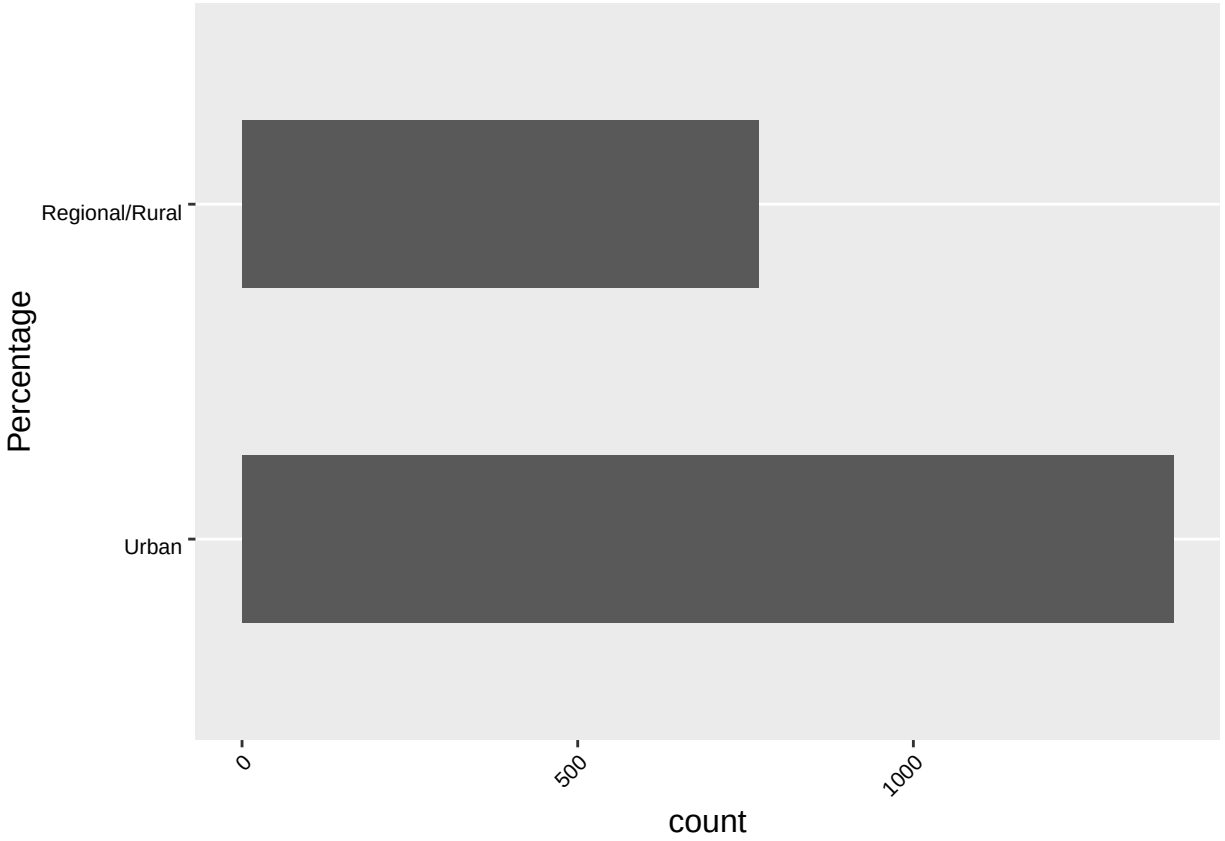


Figure 4: Australia's Age & Gender Frequency (ABS 2014)

State and Location

Survey distribution by state broadly follows Australia's demographic distribution.

The split of participants between urban and regional/rural is as follows:



The percentage of reported urban residents here is 64.3 - considerably less than World Bank figures of 89%.

Results by Critical Issue - Aggregated

Competencies

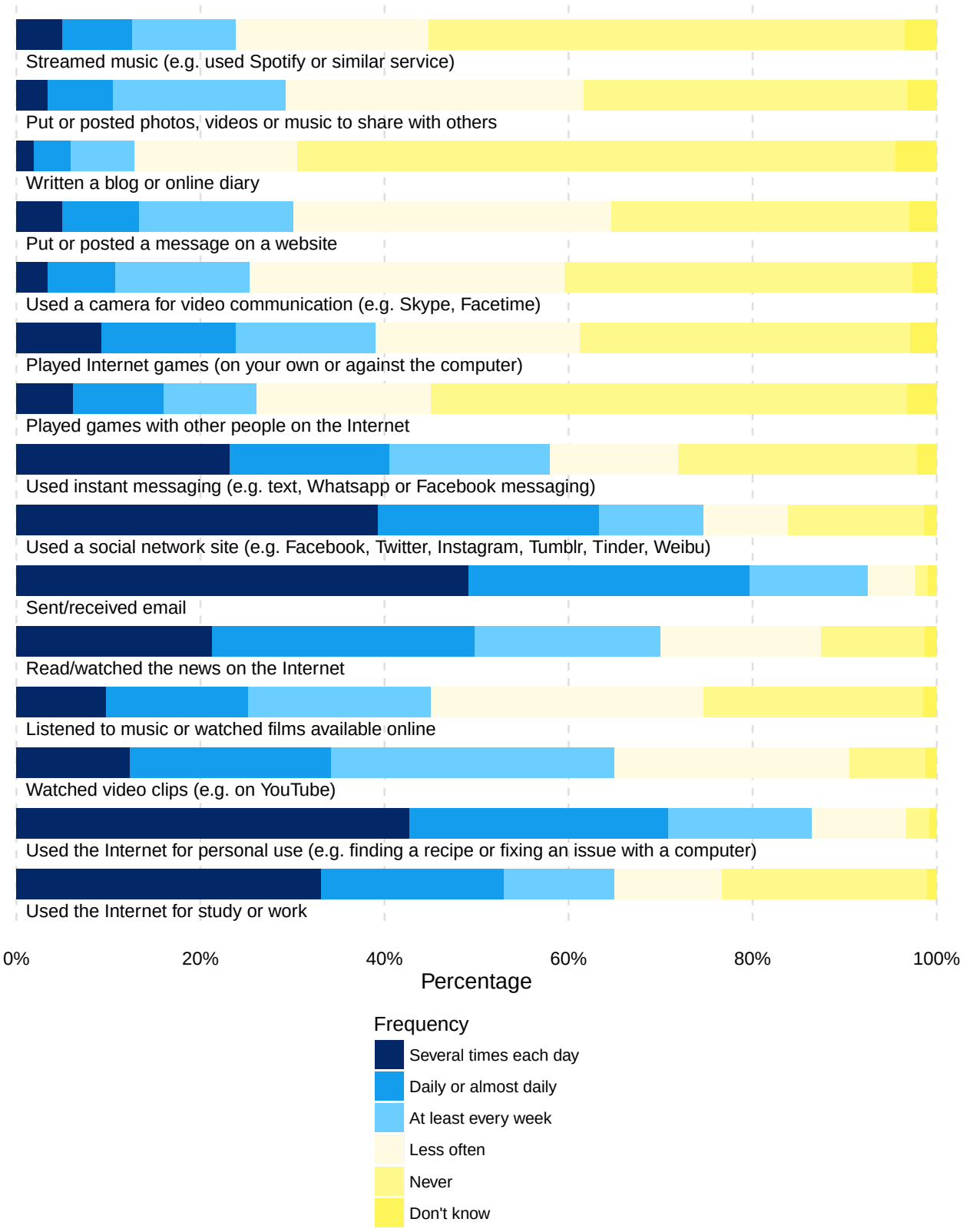
Our survey asked participants to respond to two questions about competencies:

- Frequency of online activity
- Perceived ease of conducting online activity

Frequency of online activity

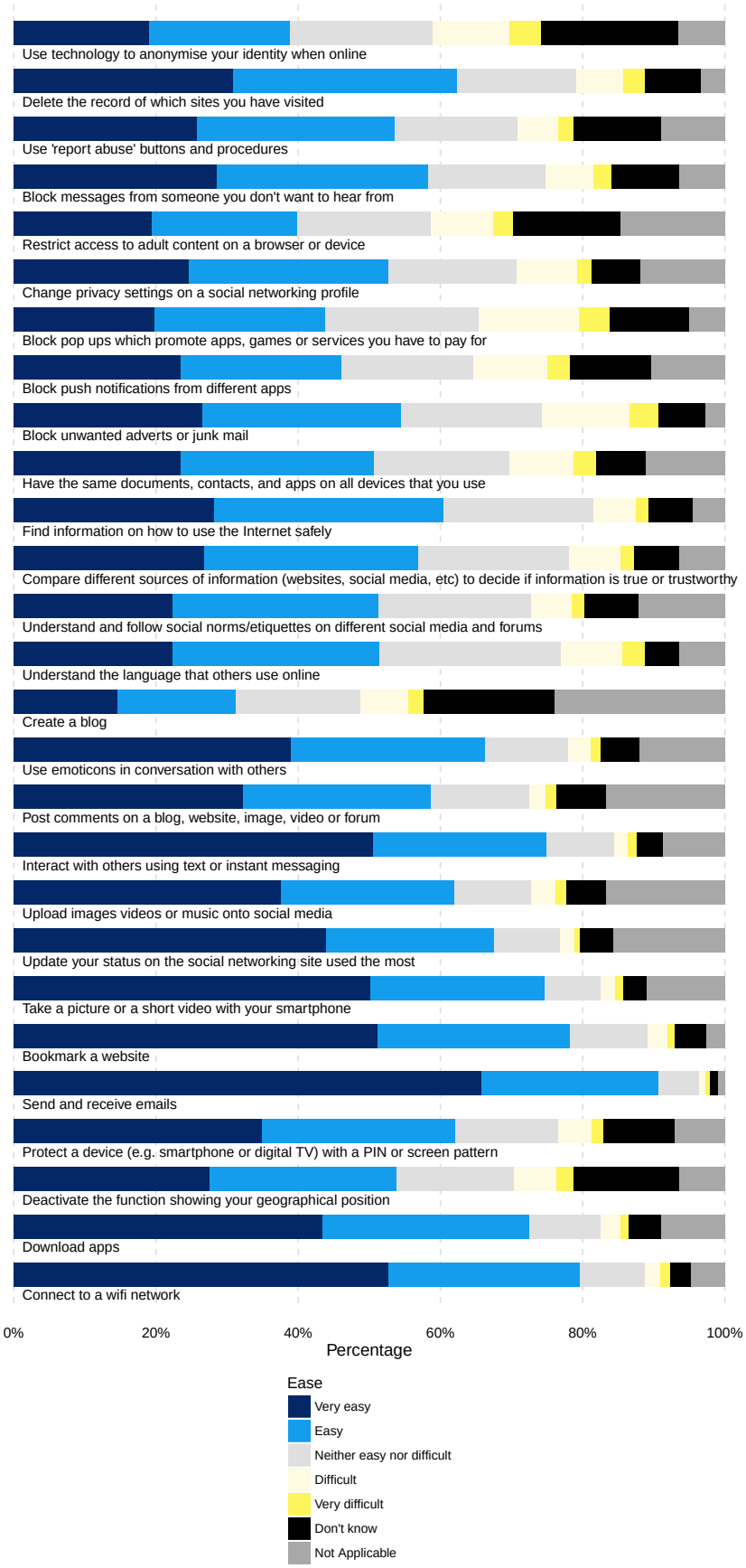
Frequency of online activity measures frequency of 15 different activities, ranging from highly common activities such as sending email through to less common activities (in 2016), such as writing blogs.

The graph below shows the relative frequencies of each activity. Using the Internet generally (for work, study, and for personal use), sending email and social networking are the most common activities. Streaming music, playing games with others, sharing media and writing blogs or diaries are comparatively uncommon activities.



Perceived ease of conducting online activity

[Introductory Text]

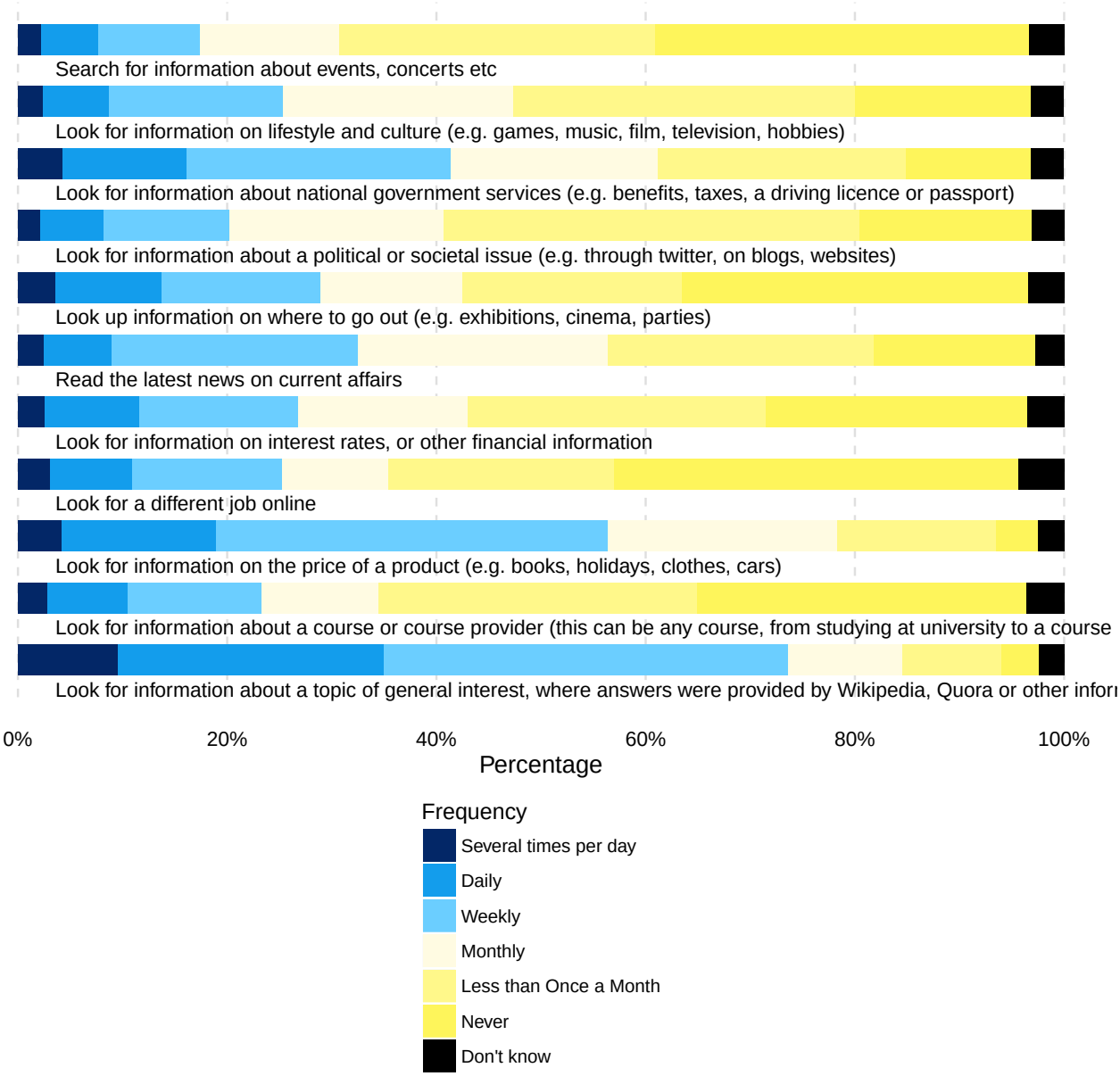

Use technology to anonymise your identity when online
Delete the record of which sites you have visited
Use 'report abuse' buttons and procedures
Block messages from someone you don't want to hear from
Restrict access to adult content on a browser or device
Change privacy settings on a social networking profile
Block pop ups which promote apps, games or services you have to pay for
Block push notifications from different apps
Block unwanted adverts or junk mail
Have the same documents, contacts, and apps on all devices that you use
Find information on how to use the Internet safely
Compare different sources of information (websites, social media, etc) to decide if information is true or trustworthy
Understand and follow social norms/etiquettes on different social media and forums
Understand the language that others use online
Create a blog
Use emoticons in conversation with others
Post comments on a blog, website, image, video or forum
Interact with others using text or instant messaging
Upload images videos or music onto social media
Update your status on the social networking site used the most
Take a picture or a short video with your smartphone
Bookmark a website
Send and receive emails
Protect a device (e.g. smartphone or digital TV) with a PIN or screen pattern
Deactivate the function showing your geographical position
Download apps
Connect to a wifi network
0%
20%
40%
60%
80%
100%
Percentage
Ease
Very easy
Easy
Neither easy nor difficult
Difficult
Very difficult
Don't know
Not Applicable

Interests

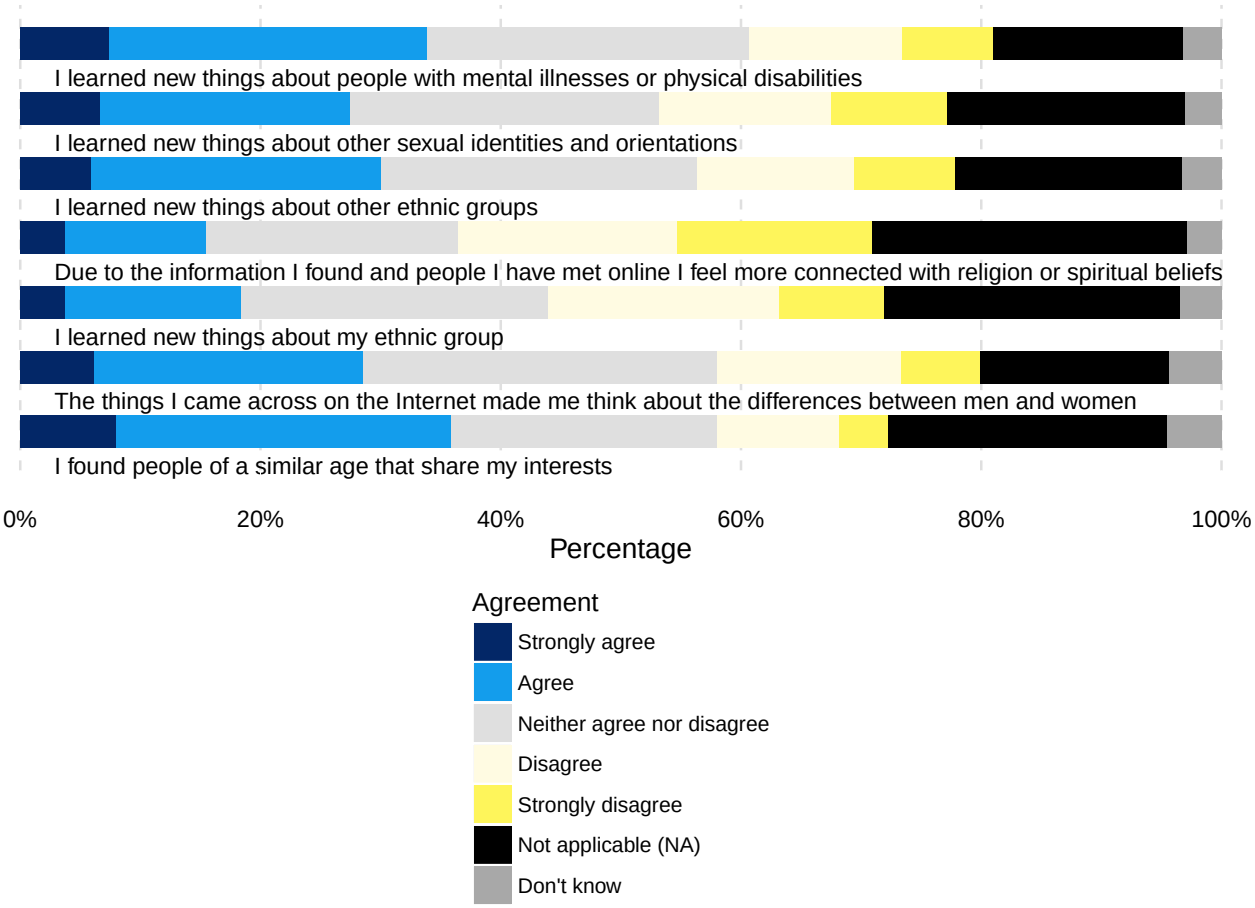
[Overview of Critical Issue]

General Interests

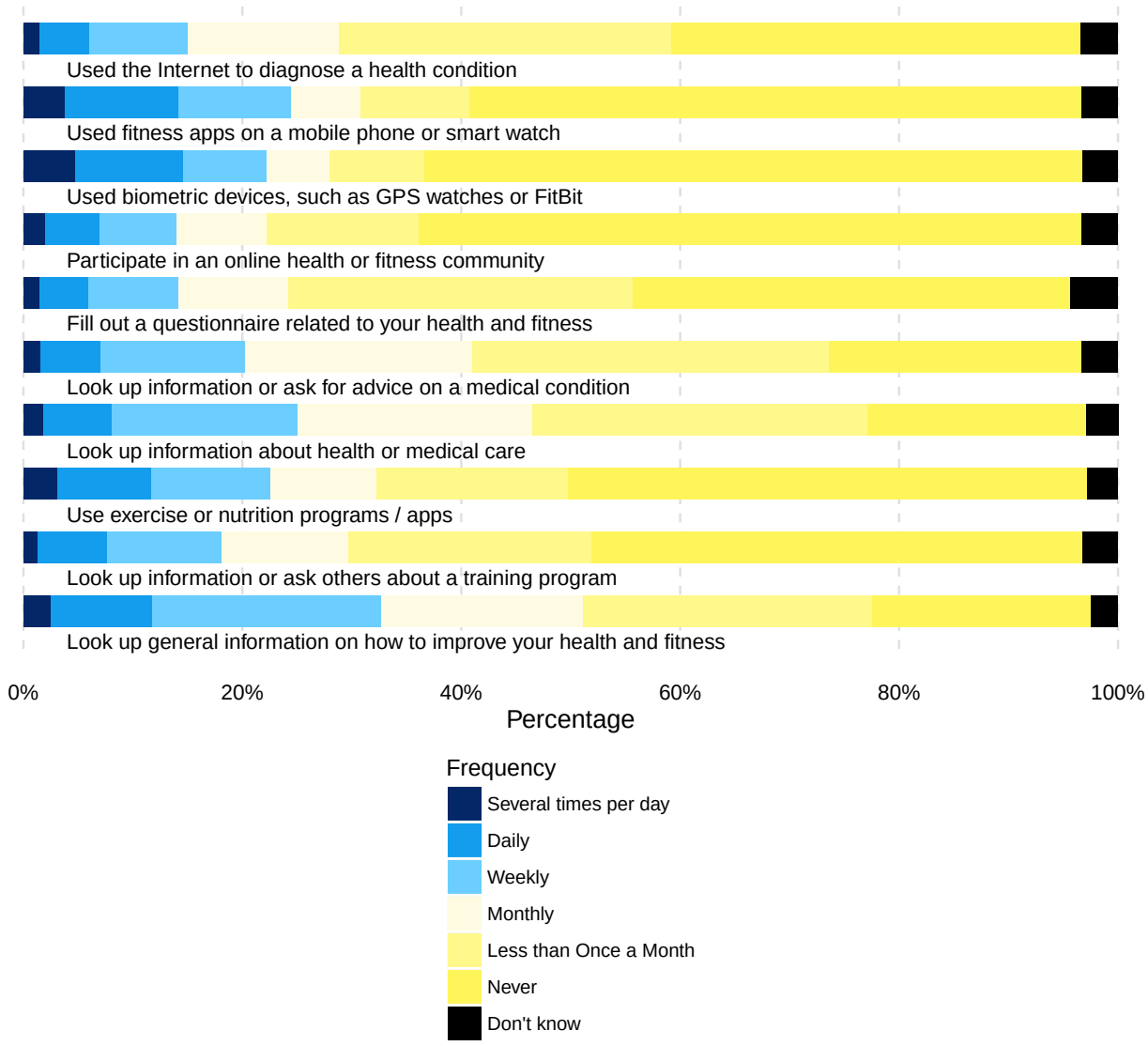
[Introductory Text]

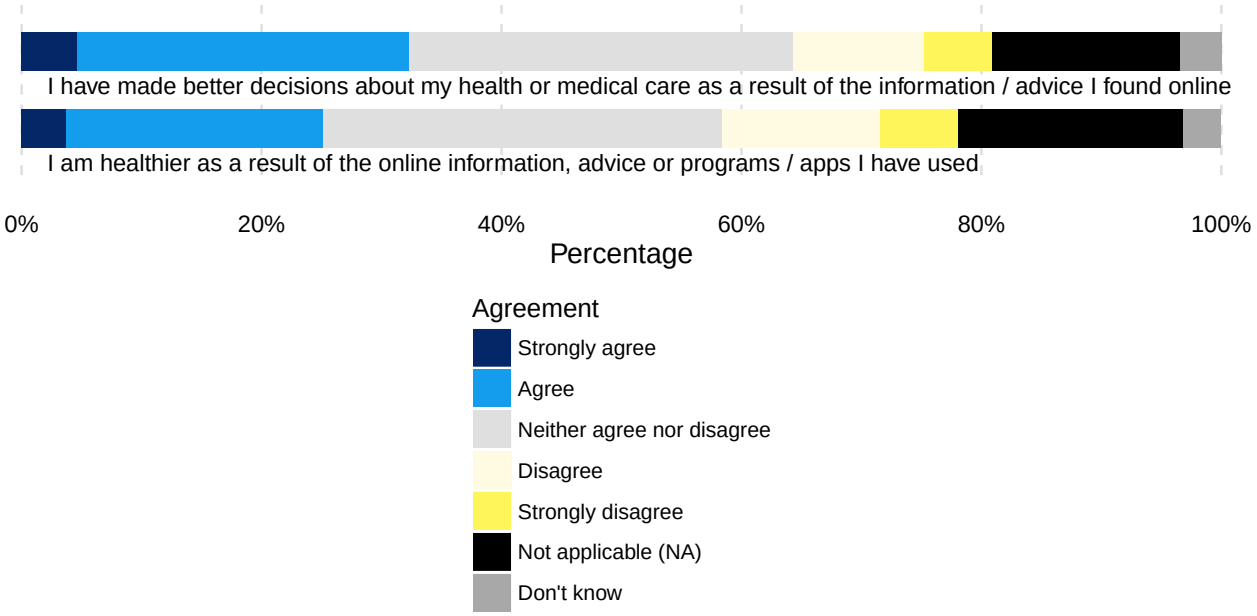


Interest in seeking difference

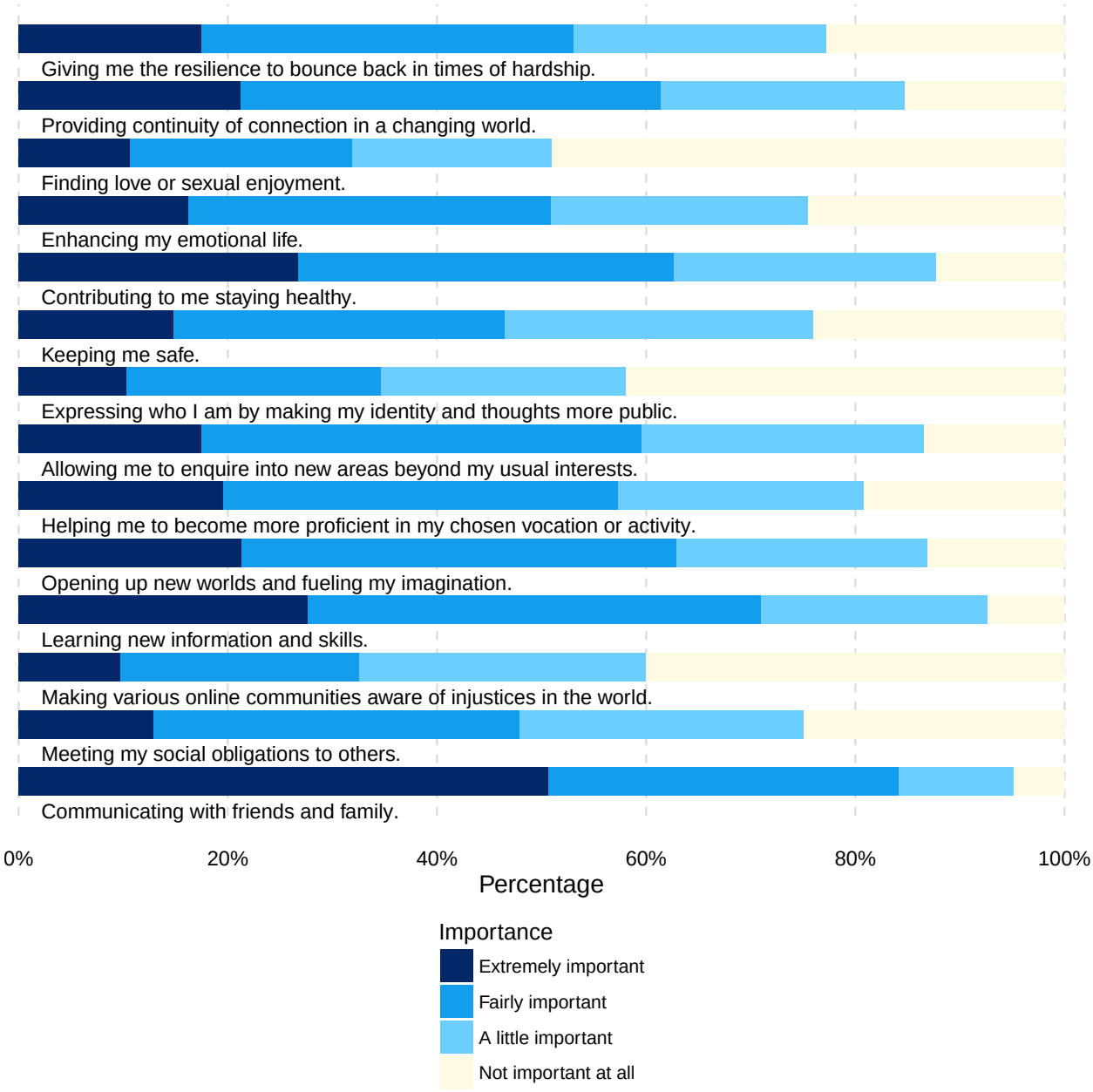


Interest in fitness and health improvement


Used the Internet to diagnose a health condition
Used fitness apps on a mobile phone or smart watch
Used biometric devices, such as GPS watches or FitBit
Participate in an online health or fitness community
Fill out a questionnaire related to your health and fitness
Look up information or ask for advice on a medical condition
Look up information about health or medical care
Use exercise or nutrition programs / apps
Look up information or ask others about a training program
Look up general information on how to improve your health and fitness
0%
20%
40%
60%
80%
100%
Percentage
Frequency
Several times per day
Daily
Weekly
Monthly
Less than Once a Month
Never
Don't know



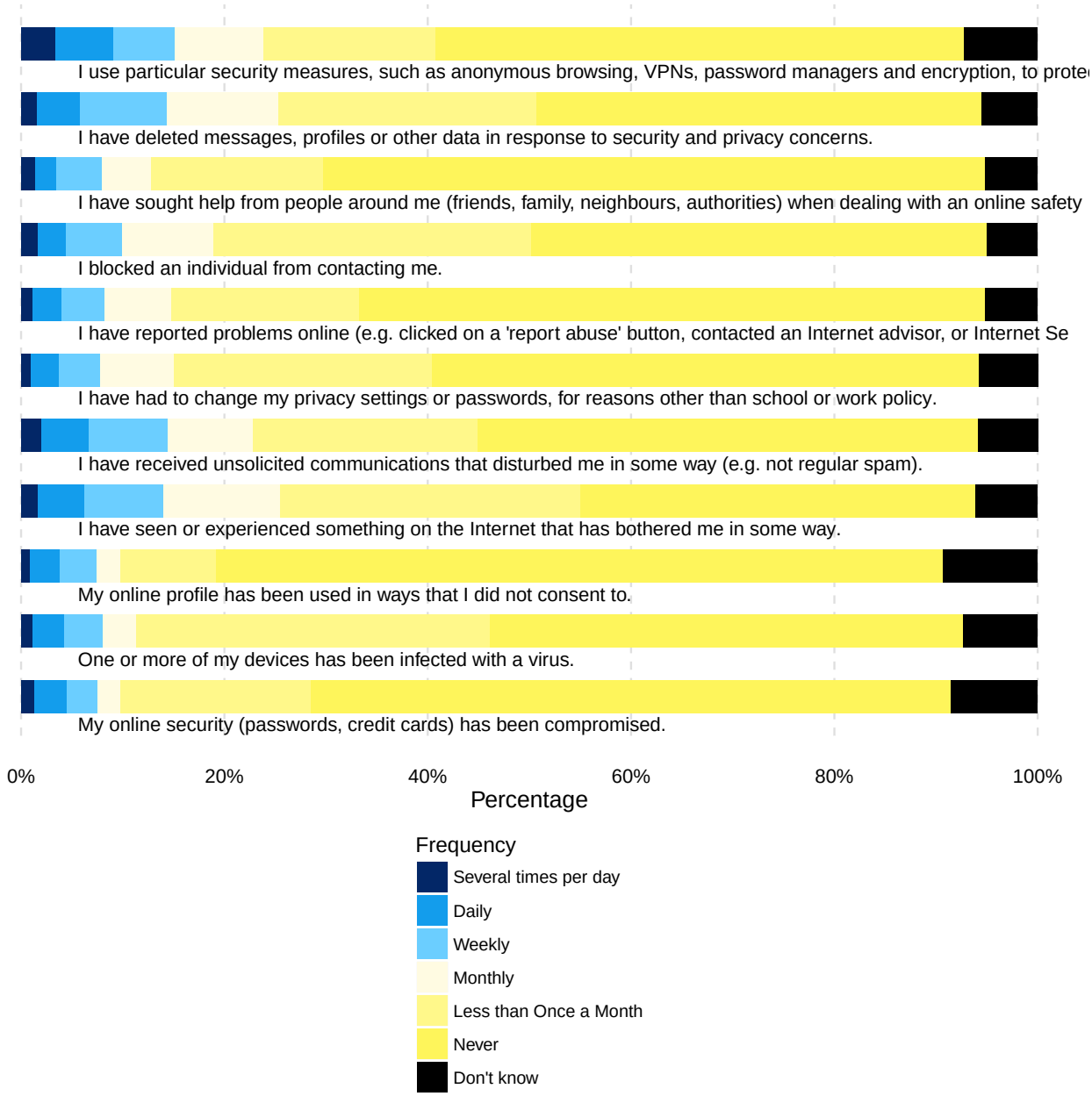
Interest in keeping in touch



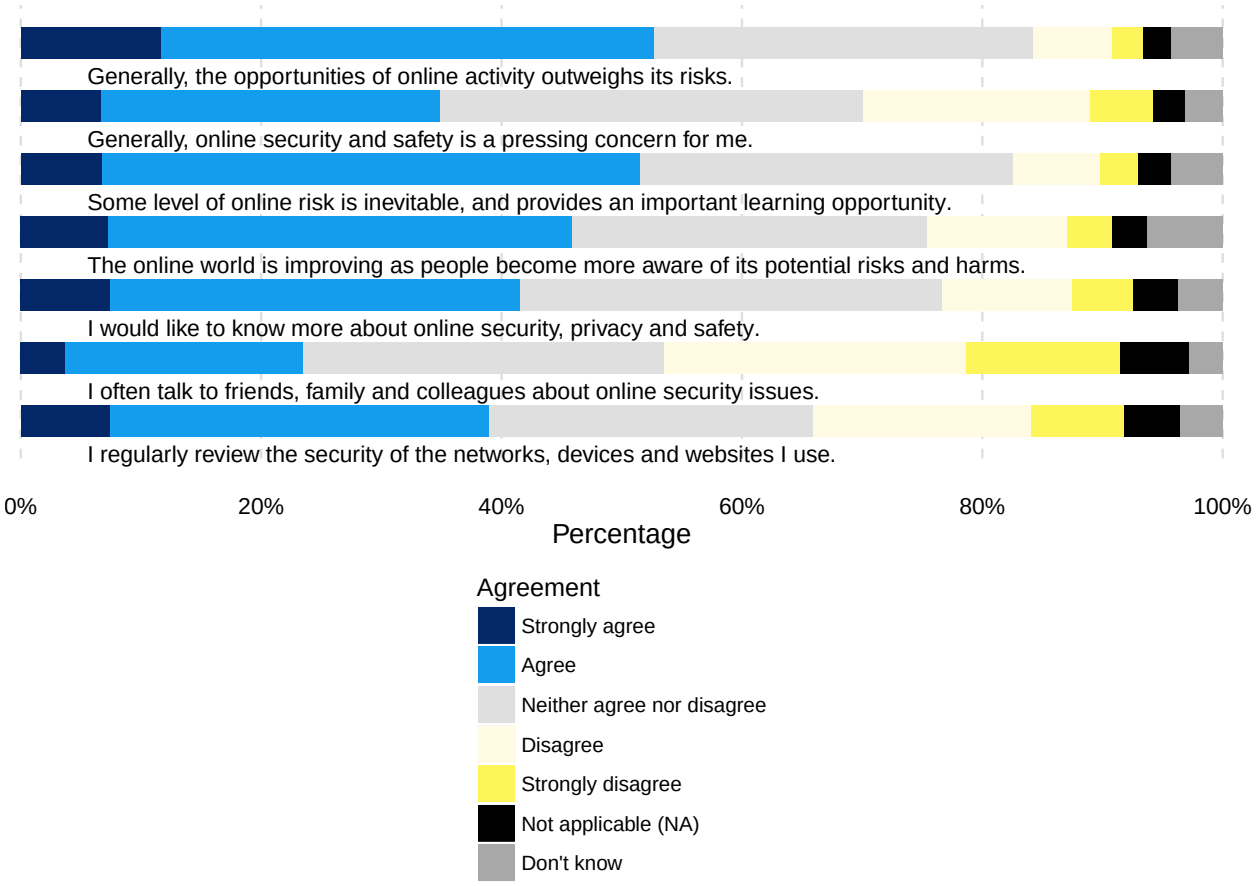
Resilience

[Overview of Critical Issue]

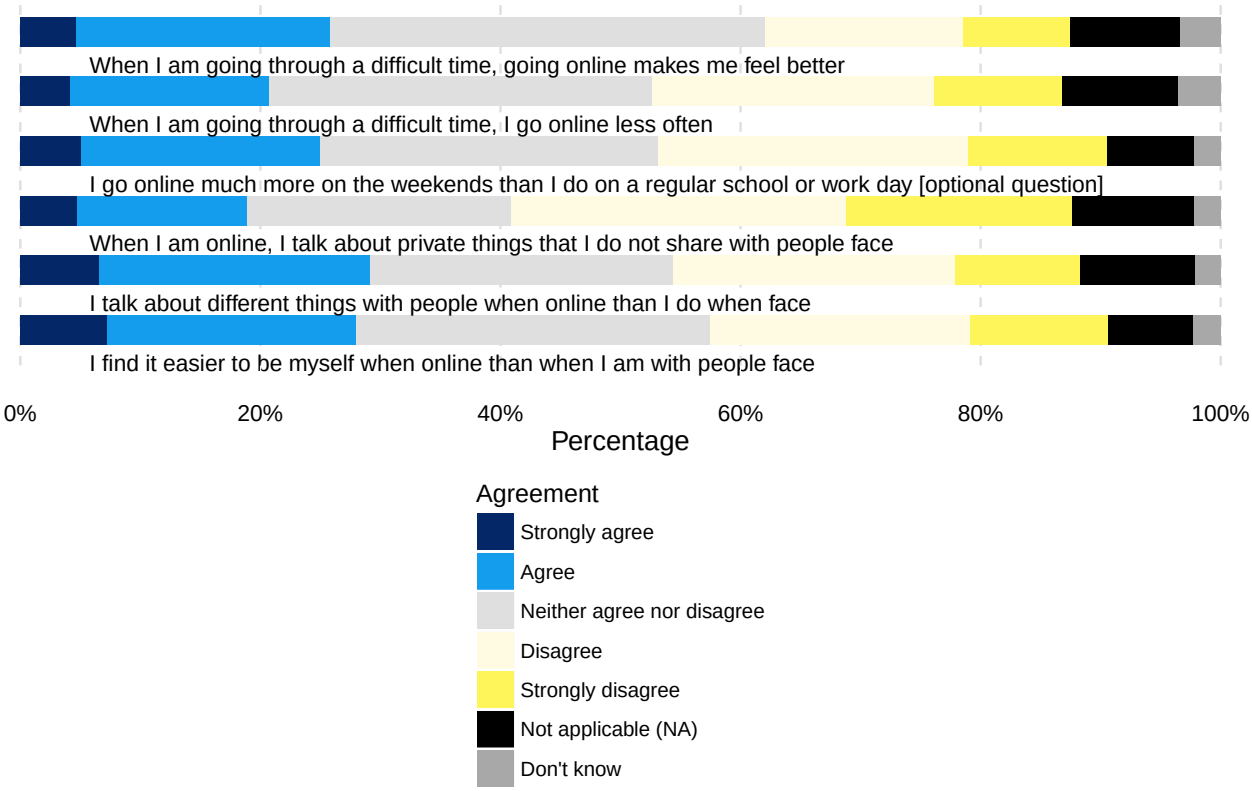
Frequency of harmful events



Responses to statements about online harms



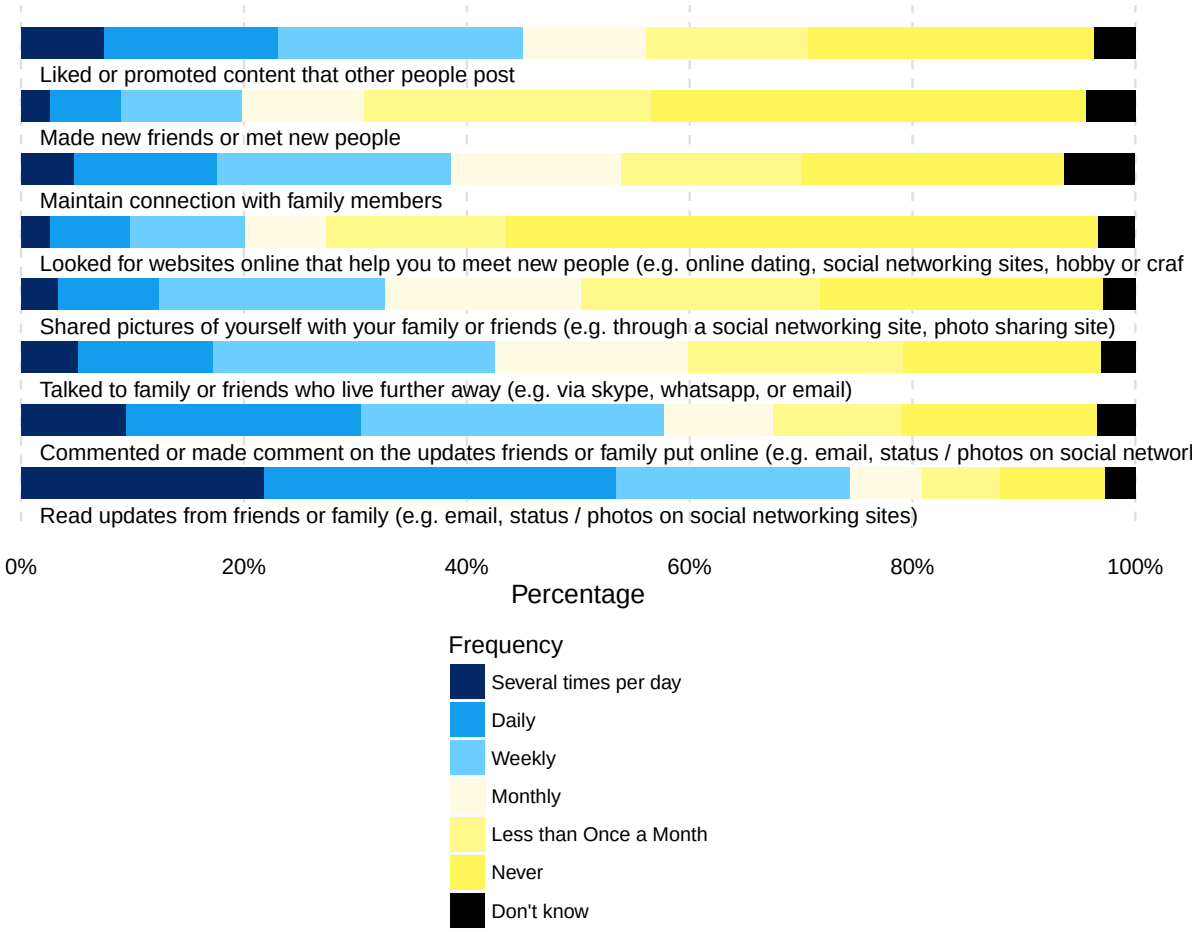
Willingness to engage with others

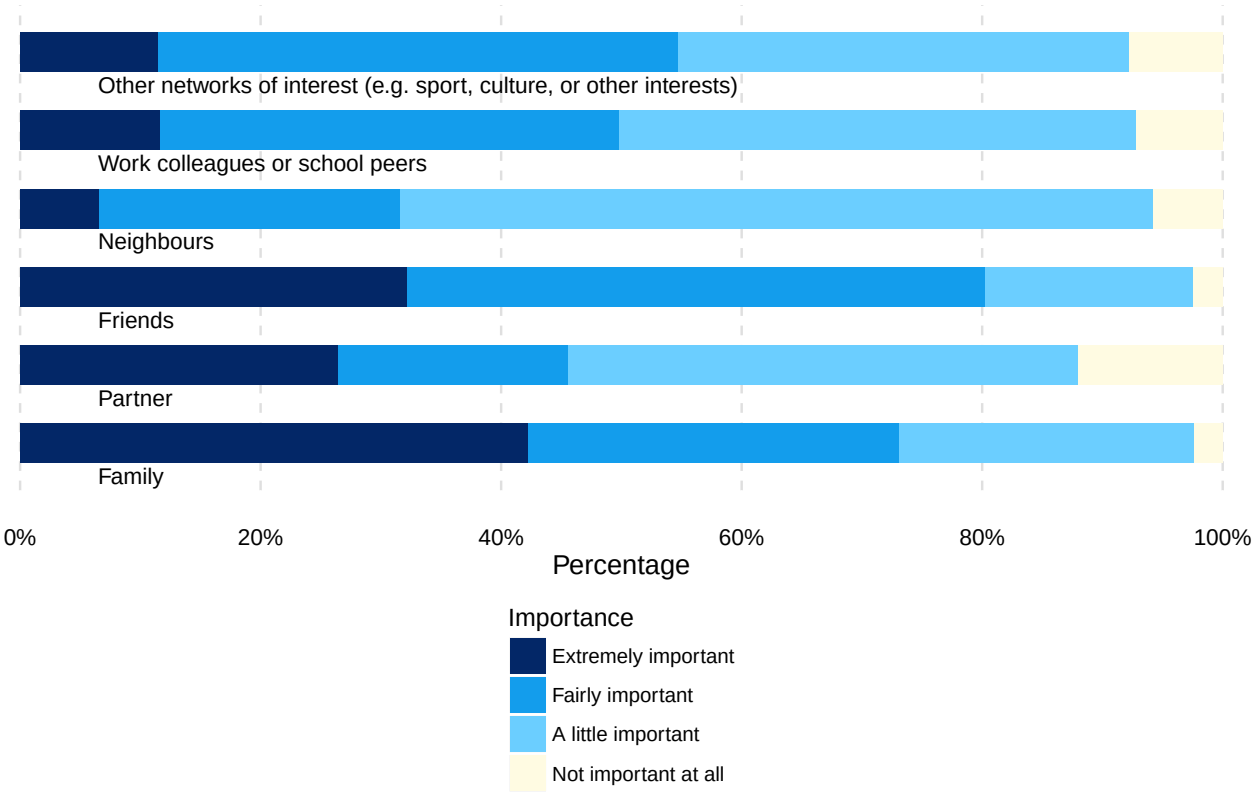


Social Connectedness

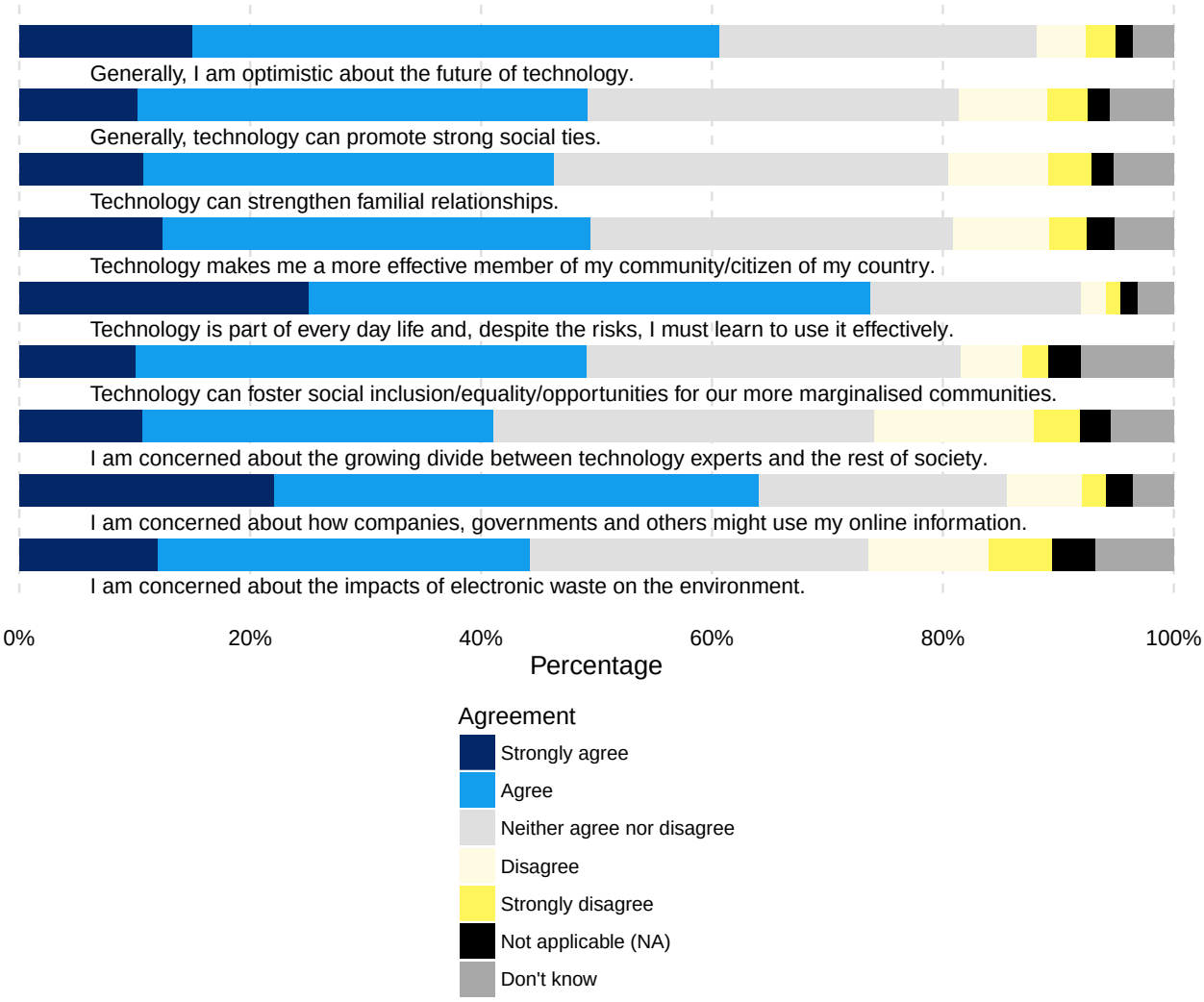
[Overview of Critical Issue]

Maintaining connections


Liked or promoted content that other people post
Made new friends or met new people
Maintain connection with family members
Looked for websites online that help you to meet new people (e.g. online dating, social networking sites, hobby or craf
Shared pictures of yourself with your family or friends (e.g. through a social networking site, photo sharing site)
Talked to family or friends who live further away (e.g. via skype, whatsapp, or email)
Commented or made comment on the updates friends or family put online (e.g. email, status / photos on social networl
Read updates from friends or family (e.g. email, status / photos on social networking sites)
0%
20%
40%
60%
80%
100%
Percentage
Frequency
Several times per day
Daily
Weekly
Monthly
Less than Once a Month
Never
Don't know

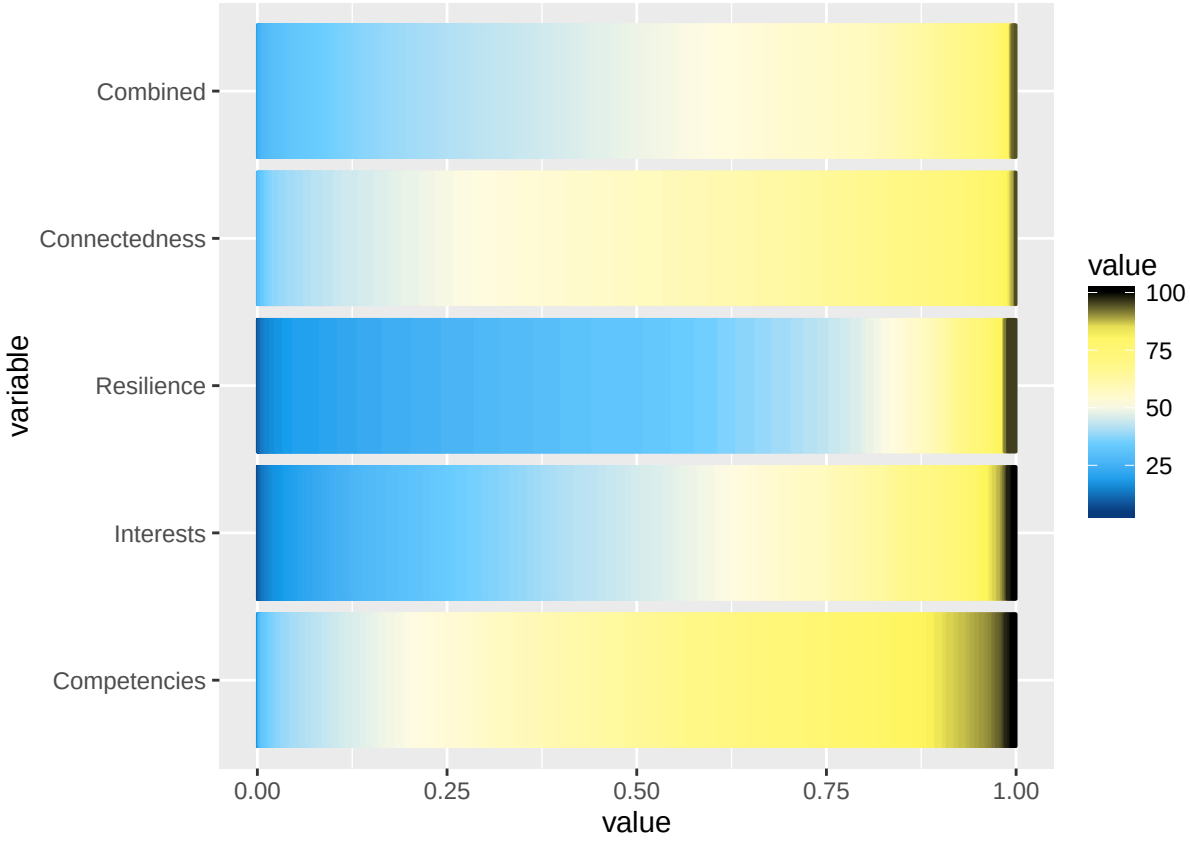


Attitudes towards Technology


Generally, I am optimistic about the future of technology.
Generally, technology can promote strong social ties.
Technology can strengthen familial relationships.
Technology makes me a more effective member of my community/citizen of my country.
Technology is part of every day life and, despite the risks, I must learn to use it effectively.
Technology can foster social inclusion/equality/opportunities for our more marginalised communities.
I am concerned about the growing divide between technology experts and the rest of society.
I am concerned about how companies, governments and others might use my online information.
I am concerned about the impacts of electronic waste on the environment.
0%
20%
40%
60%
80%
100%
Percentage
Agreement
Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree
Not applicable (NA)
Don't know

Overall results

Aggregates by Critical Issue



Appendices

References

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