



# 2021 BITDEFENDER GLOBAL REPORT: CYBERSECURITY AND ONLINE BEHAVIORS

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# AGENDA

- Objectives
- Methodology
- Executive summary
- Popular platforms and services
- Managing devices & online accounts
- Threats & vulnerabilities
- Online usage profiles
- Socio - demographics

# REPORT OBJECTIVES

- Measure the usage of online platforms and services
- Analyze how connected devices and online accounts are managed
- Explore attitudes and behaviors towards cybersecurity threats and vulnerabilities
- Compare online use and demographic profiles



# METHODOLOGY

**Sample size:** Total (11 countries): 10,124 respondents, total data are weighted according to the size of online population of each country

Sample size by country:

Romania – 1000 interviews  
USA – 1000 interviews  
UK – 1000 interviews  
Australia – 1000 interviews

Spain – 800 interviews  
Italy – 800 interviews  
France – 1000 interviews  
Netherlands – 800 interviews

Germany – 1000 interviews  
Sweden – 800 interviews  
Denmark – 800 interviews

**Data collection method:** Online Survey

**Data collection period:** June 2021

**Data reported:**

- **Total** - All respondents
- **Target:** Internet users age 18-65
- **Age intervals** – 18- 24 y.o.; 25-34 y.o.; 35-44 y.o.; 45-54 y.o.; 55-65 y.o.;
- **Sex** – Male & Female



## Executive Summary (1/2)

### PLATFORMS, APPLICATIONS, SERVICES

**Internet users** have on average **8 online platform accounts**. Of those analyzed, the top used are **Facebook, WhatsApp, Gmail** and **YouTube**. There are several usage differences among males and females and across age groups. **Facebook** and **WhatsApp** are used most by those 25+, **Gmail** is more popular after 35, while **YouTube** and **Instagram** are popular up to 34. Among 18-24, **Tik Tok** and **Snapchat** are the most used platforms.

### MANAGING DEVICES

Consumers regularly use multiple devices for online activities, with **2/3** using **at least 3 devices**. Almost a **quarter** use a **work device** for accessing their online accounts. Companies should therefore ensure devices are secured and educate employees on best security practices.

For **half** of users, a **mobile phone** is the device most often used for personal activities with use highest amongst those up to 44.

### MANAGING ONLINE ACCOUNTS

For **managing account details**, users use **several methods**. **Half** just **memorize** the details, a third rely on the **autofill** option, and a quarter **write them** down or use a **password manager**. **Sharing account details** with family and friends is most likely to happen for **car service/rental** accounts at **60%** followed by **video streaming 49%**, **airline companies 45%**, and **software utilities 44%**.

Communicating about security risks associated with account management and educating users on security best practices may attract more users and help build a positive brand image.

## Executive Summary (2/2)

### THREATS & VULNERABILITIES

**Sixty-one percent** of users have **experienced** at least one **threat in the past year**, scam messages/calls on mobile (36%) and phishing (23%) occurring most frequently. **Financial fraud** generates the highest level of anxiety, with 41% of users concerned.

**Fifteen percent of users are not using any online security product/ service** on their most used device for personal online activities, with **mobile phone** being rather more **exposed** than other devices.

**Antivirus is not** used by almost a **third of users (30%)** on their **main mobile device** (either phone or tablet). Users believe they do not need it or that it is built in, therefore rising awareness about threats on mobile devices might improve security best practices.

Slightly more than **half** of respondents are using **a single or a few passwords across online accounts**, and approximately a **quarter** are using one of the **simple passwords for online accounts**. Regarding mobile phone, **30% are not properly securing it**, as they use a simple password.

In educating users on security, a special focus should be on **mobile devices**, especially mobile phones, as they are more exposed, with a lower usage of security products/ services and higher usage of simple passwords. Moreover, mobile devices are more frequently used by younger consumers, who are less worried about online threats and vulnerabilities.

# PLATFORMS AND SERVICES

## SOCIAL MEDIA, ONLINE SHOPPING AND VIDEO STREAMING ARE SERVICES MOST PEOPLE DECLARE THAT HAVE AN ACCOUNT FOR

In general, **males have more online accounts**, except social media and online shopping where females rank higher, while for health and utilities suppliers there are no differences between genders.

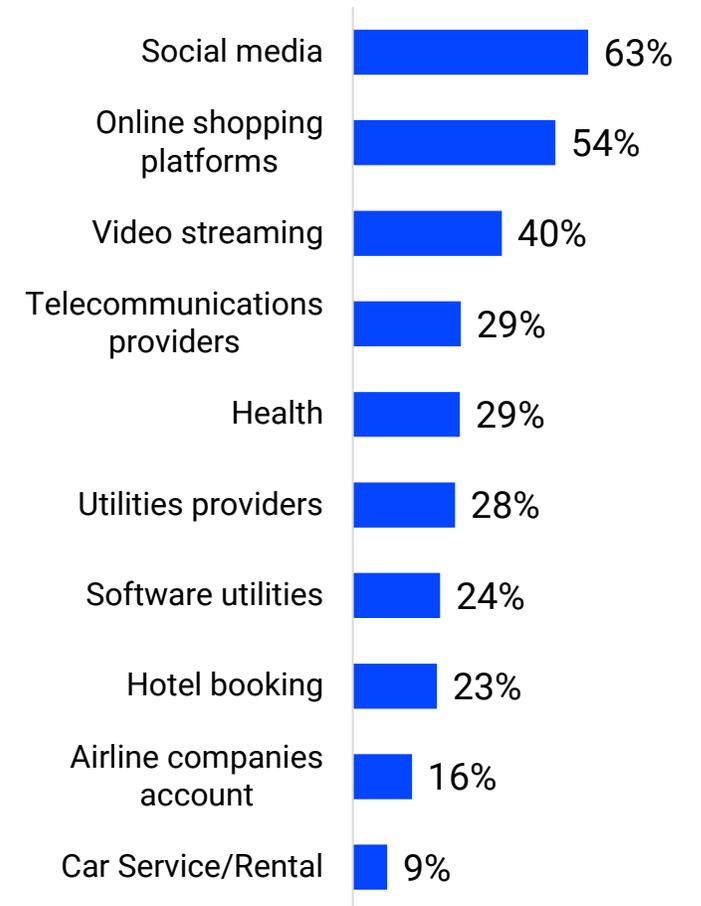
**Young adults (18-24)** have the **least accounts**, except for social media and video streaming. Hotel booking, airline companies, software utilities have the highest use among the 25-44 age group.

**Social media** is the highest in all countries, except Italy where online shopping platforms rank highest.

Accounts for **utilities** and **telecommunication** providers are especially high in Romania (62% & 60%), compared to other countries where they max at 43% & 41%.



### Services with online accounts



Q5. For which of the following services do you have an online account? N=10124; All respondents

**ONLINE SERVICES WITH ACCOUNTS VARY ACROSS AGE GROUPS, THE PROPORTION OF THOSE HAVING AN ACCOUNT IS LOWER AFTER 45. SUPRISINGLY YOUNG ADULTS (18-24) DECLARE THAT THEY HAVE A LOW AVERAGE NUMBER OF ACCOUNTS**

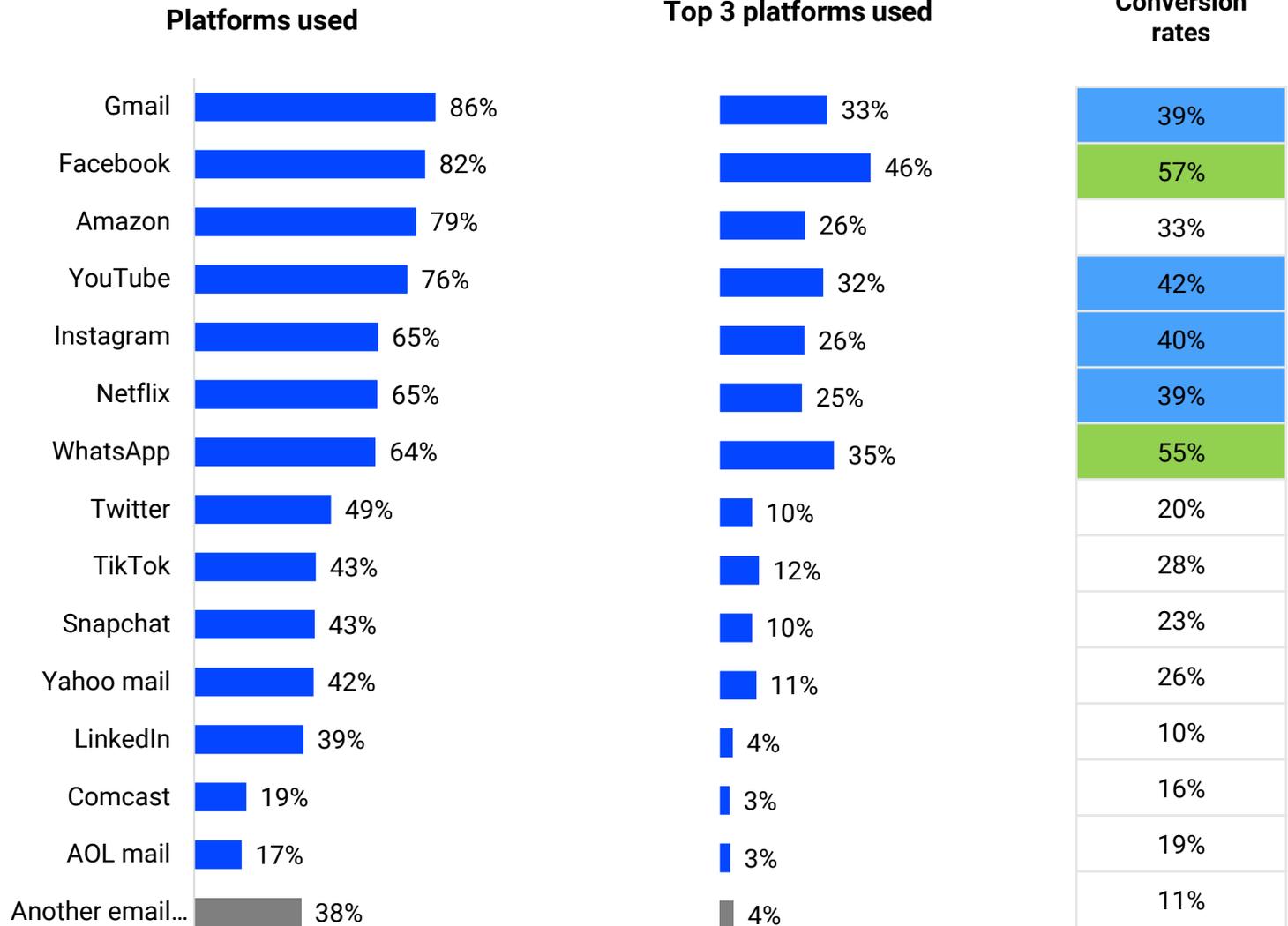
	Total	18-24 y.o.	25-34 y.o.	35-44 y.o.	45-54 y.o.	55-65 y.o.
<i>Base= ... respondents</i>	10124	1380	2164	2201	2304	2075
<b>Social media</b>	63%	63%	68%	70%	61%	55%
<b>Telecommunications providers</b>	29%	17%	27%	32%	34%	31%
<b>Utilities suppliers</b>	28%	11%	24%	29%	33%	34%
<b>Health</b>	29%	24%	29%	29%	29%	31%
<b>Video streaming</b>	40%	40%	48%	47%	39%	27%
<b>Online shopping platforms</b>	54%	44%	55%	58%	58%	54%
<b>Hotel booking</b>	23%	14%	28%	28%	23%	17%
<b>Airline companies account</b>	16%	12%	20%	17%	16%	14%
<b>Car Service/Rental</b>	9%	11%	12%	11%	8%	5%
<b>Software utilities</b>	24%	25%	30%	30%	21%	14%
<b>None</b>	9%	4%	4%	6%	11%	18%

■ Significantly higher difference vs **Total**  
■ Significantly lower difference vs **Total**

Q5. For which of the following services do you have an online account? All respondents



**FACEBOOK, WHATSAPP, GMAIL AND YOUTUBE ARE THE MOST USED PLATFORMS. BOTH END-USERS & ORGANIZATIONS NEED TO MAKE SURE THEY ARE EDUCATED, INFORMED AND SECURED ON THESE PLATFORMS.**



■ Significantly higher difference vs Total  
■ Significantly lower difference vs Total

Q1. Do you have an account for...? Only % of YES; N=10124; All respondents Q1.1 And which of these are the top 3 platforms you use? N= 10124; Respondents who use platforms

## WITH AN AVERAGE OF 8 PLATFORMS USED, THERE ARE SEVERAL DIFFERENCES ACROSS AGE GROUPS AND GENDER

Higher usage among **females** on social media platforms: Facebook, Instagram, TikTok and Snapchat, while **males** have accounts in a higher proportion on YouTube, WhatsApp and Twitter.

	Total	Females	Males	18-24 y.o.	25-34 y.o.	35-44 y.o.	45-54 y.o.	55-65 y.o.
<i>Base= ... respondents</i>	10124	5078	5046	1380	2164	2201	2304	2075
Amazon	26%	27%	26%	13%	19%	24%	35%	35%
Facebook	46%	51%	42%	20%	45%	55%	51%	52%
LinkedIn	4%	3%	5%	2%	3%	5%	4%	5%
Snapchat	10%	12%	8%	35%	13%	6%	4%	1%
TikTok	12%	14%	10%	38%	16%	8%	5%	3%
Netflix	25%	26%	24%	27%	26%	28%	27%	19%
Twitter	10%	6%	14%	11%	13%	11%	7%	7%
WhatsApp	35%	34%	37%	22%	38%	43%	36%	32%
Instagram	26%	29%	23%	47%	39%	28%	16%	10%
Gmail	33%	34%	33%	16%	28%	35%	39%	42%
Yahoo mail	11%	11%	11%	5%	4%	10%	18%	17%
AOL mail	3%	3%	4%	1%	1%	2%	3%	8%
Comcast	3%	3%	3%	2%	2%	1%	4%	6%
YouTube	32%	28%	36%	45%	40%	30%	30%	20%
Another email provider	4%	4%	4%	0%	1%	2%	5%	11%
<i>Average – no platforms</i>	8.1	7.9	8.2	9.1	9.8	9.1	7.2	5.6

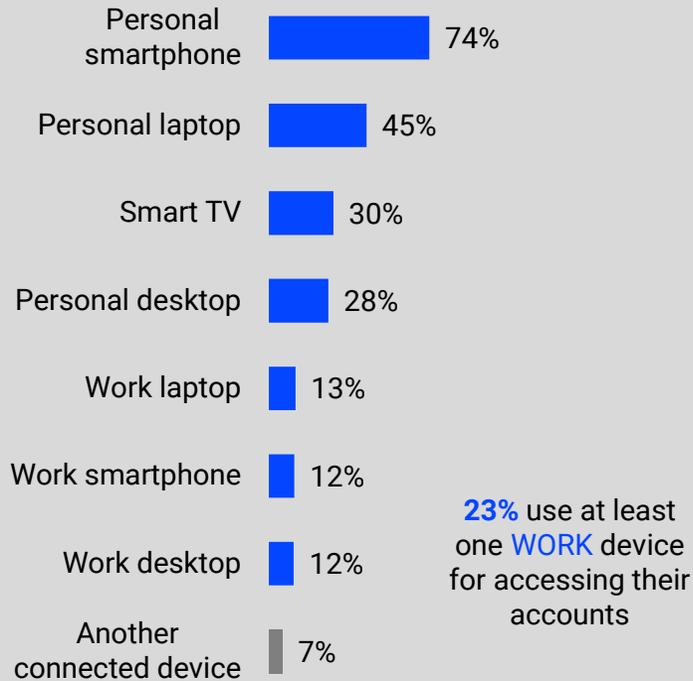
■ Significantly higher difference vs **Total**  
■ Significantly lower difference vs **Total**

Q1.1 And which of these are the top 3 platforms you use?  
 N= 10124; Respondents who use platforms

# MANAGING DEVICES & ONLINE ACCOUNTS

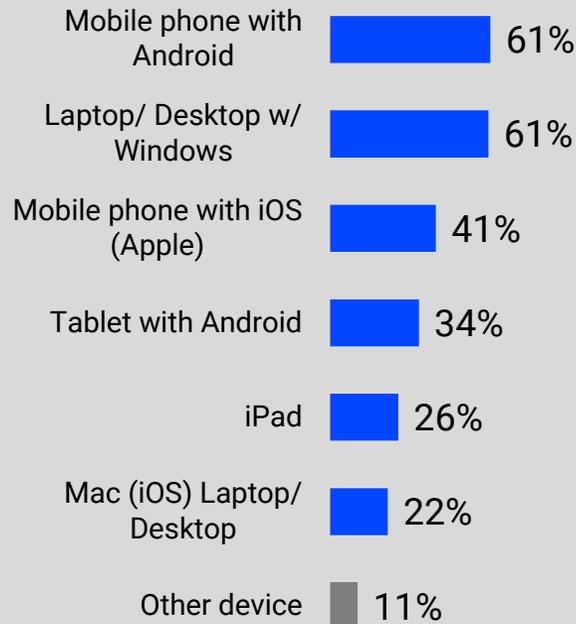
# ALMOST A QUARTER OF RESPONDENTS FREQUENTLY ACCESS THEIR ACCOUNTS FROM A WORK DEVICE. HALF OF RESPONDENTS USE THEIR MOBILE PHONE AS THEIR MAIN DEVICE FOR PERSONAL ONLINE ACTIVITIES MAKING MOBILE SECURITY CRITICAL FOR ACCESSING SERVICES SAFELY.

## USUAL DEVICES USED FOR PLATFORMS

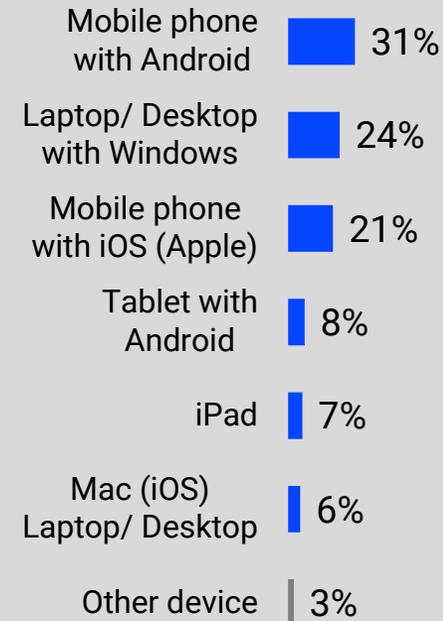


## DEVICES USED FOR PERSONAL ONLINE ACTIVITIES

### TOP 3 MOST USED DEVICES



### MOST USED DEVICE



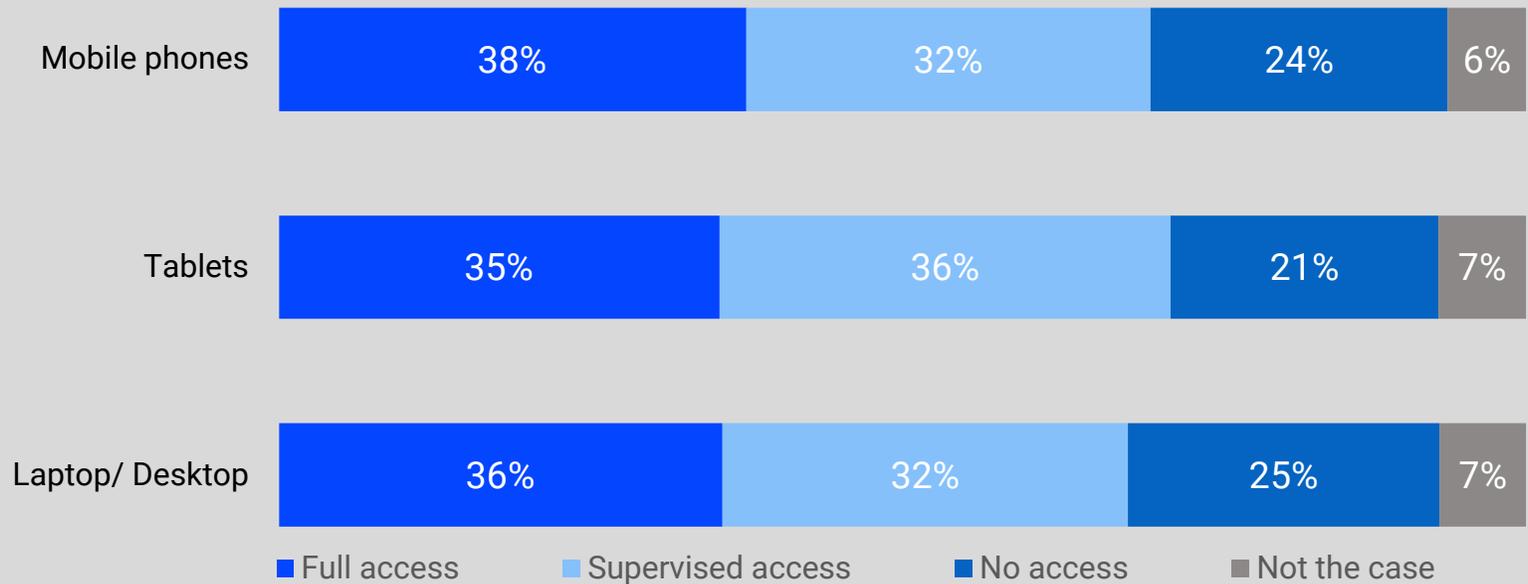
90% use a second device

67% use a third device

Usage of **mobile phone** as main device **decreases with age** (~60% up to 44 yo, reaching only 33% among 54-65 yo).

# OVER ONE-THIRD OF CHILDREN HAVE FULL ACCESS TO DEVICES GREATLY INCREASING SECURITY RISK AND FURTHER DRIVING THE URGENCY TO BUILD CYBERSECURITY AWARENESS AND GOOD ONLINE HABITS AT AN EARLY AGE

DEVICE USAGE BY CHILDREN



In US full access reaches almost 50%, while in all the other countries is less than 40%.

Q7.1 Do children in the household have access and browse or install various apps on your personal devices, such as mobile phones, tablets, laptops/ desktops? N= 4433; Respondents who have children

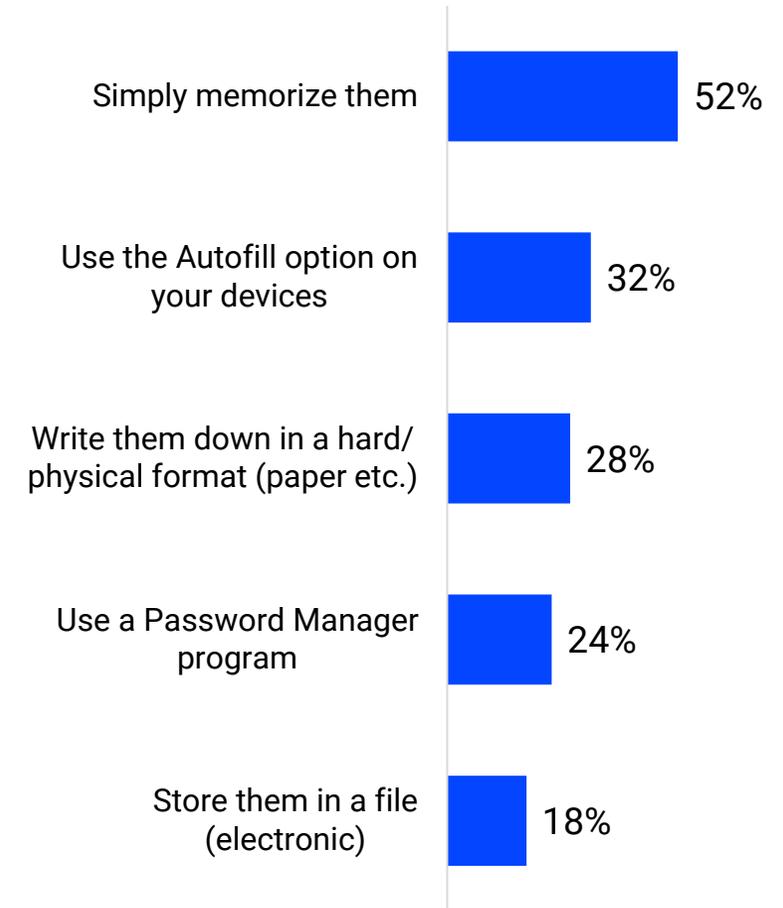
# PASSWORD MANAGEMENT OF ONLINE ACCOUNTS IS DONE A VARIETY OF WAYS

**Autofill** and **password managers** are used most often by 25-44, storing passwords on an **electronic file** is more popular in the 18-44 age group, while hard format is used more by those between 55-65.

**Password manager** and **electronic file** are used more by males (26% and 22%) compared to females (21% and 13%).

Password managers, electronic file and hard format are used most frequently for **work devices** and the least frequently for **personal phone**.

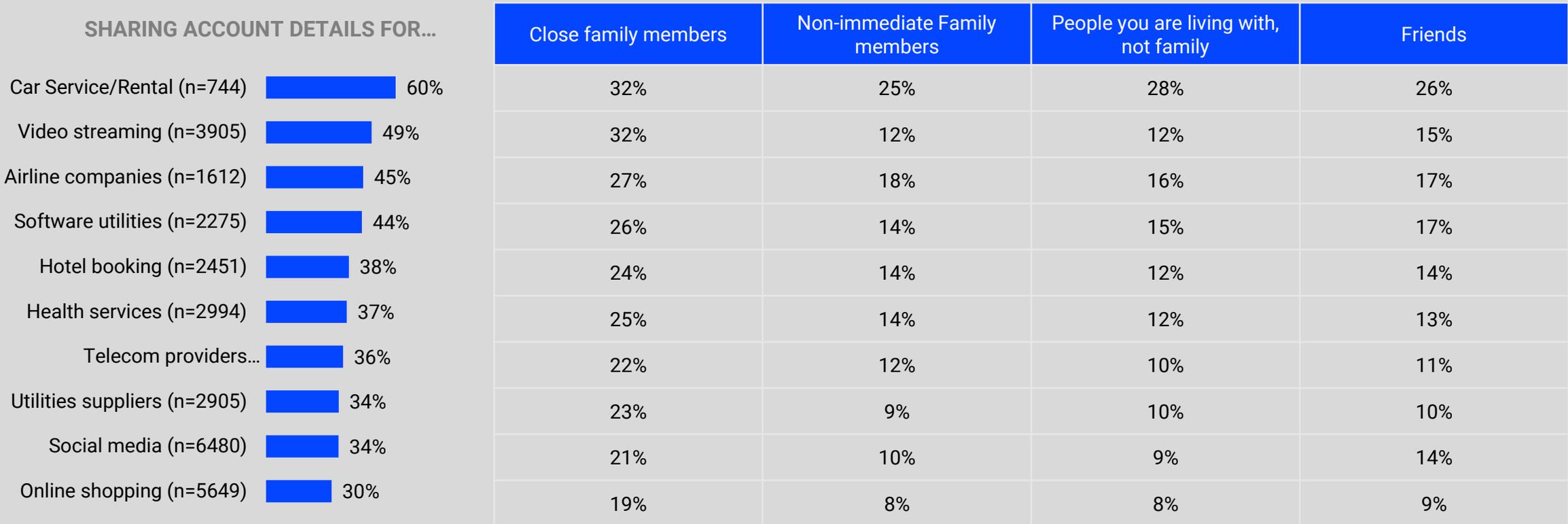
## Methods of managing account passwords



Q3 How do you manage your accounts – username and passwords? N=10124; All respondents

## MOST SHARED TYPE OF ACCOUNTS ARE FOR CAR SERVICE/RENTAL (BUT USED ONLY BY A FEW), VIDEO STREAMING, AIRLINE COMPANIES AND SOFTWARE UTILITIES

Males and young adults (up to 44) are more likely to **share** their accounts' details, with those 55+ more unwilling to do so.



## PERSONAL IDENTIFICATION DETAILS ARE MORE LIKELY TO BE SHARED, THIS BEHAVIOR IS INFLUENCED BOTH BY THE TYPE OF INFO USERS ARE REQUIRED TO SHARE AND THE RISKS ASSOCIATED WITH SHARING THEM

Never + Almost never	Sharing personal data	Almost always + always
23%	Gender	54%
29%	Name	43%
29%	Personal email adress	40%
31%	Birthdate	40%
43%	Physical address	29%
56%	Work email adress	24%
62%	Credit card or debit card number	20%

**Males share** their data in a higher degree than females, with info about “gender” being equally shared.

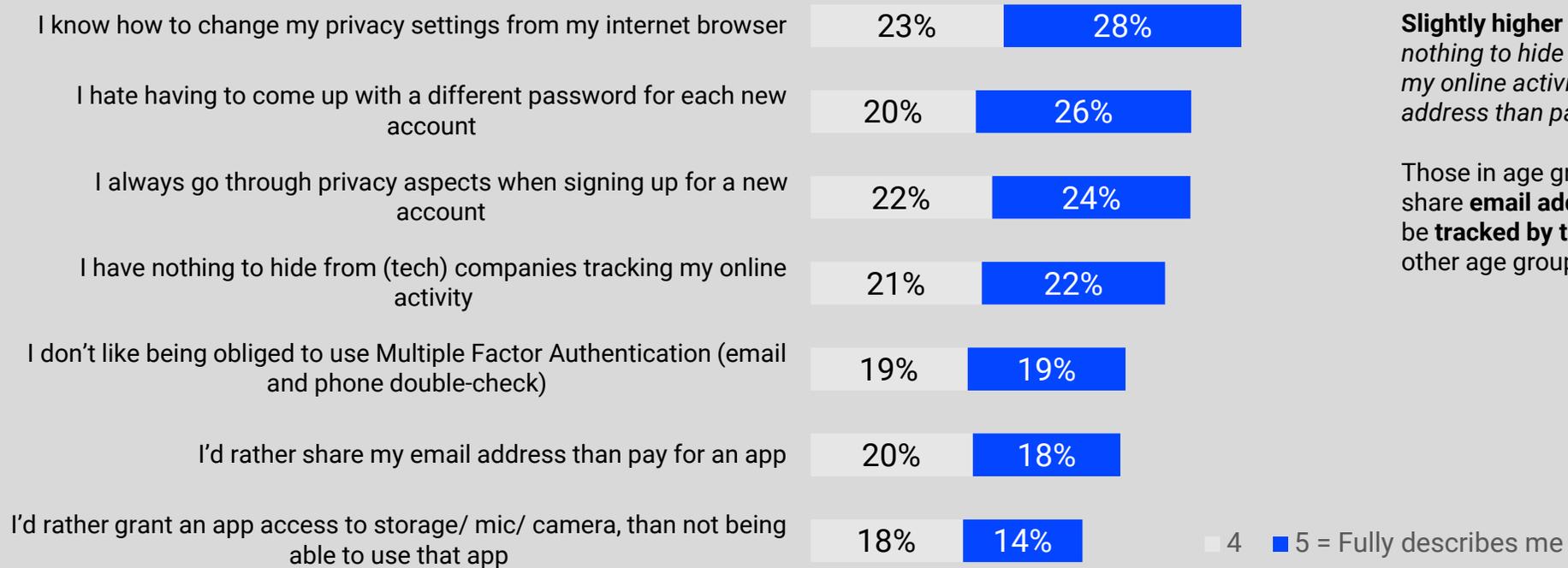
**Young adults** (18-24 yo) and those middle aged (45-65) are **more likely to share** their data.

Across countries surveyed, **the highest** proportion of **sharing** is in **Romania, US, and Sweden** and the lowest in Netherlands and France.

# THREATS & VULNERABILITIES

# INTERNET USERS DECLARE THAT THEY ARE QUITE FAMILIAR WITH HOW TO CHANGE THEIR PRIVACY SETTINGS AND THAT THEY GO THROUGH THE PRIVACY ASPECTS WHEN SIGNING UP FOR A NEW ACCOUNT

## BEHAVIORS REGARDING ONLINE NAVIGATION (scale from 1 to 5)



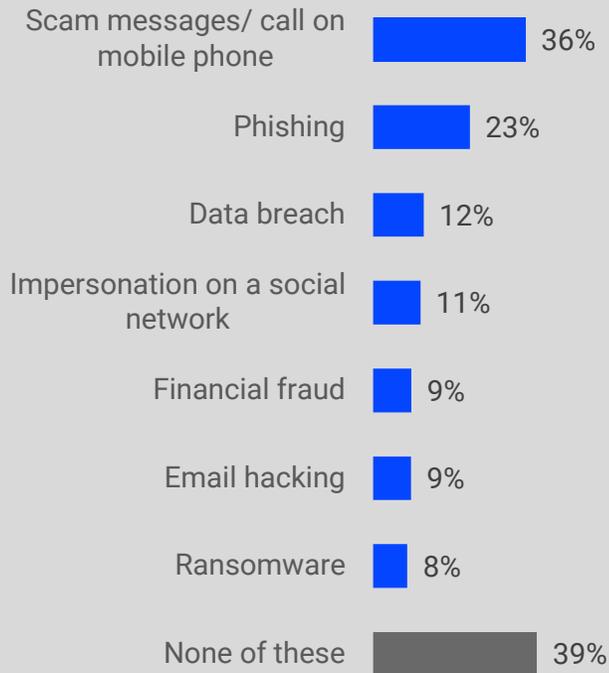
**Slightly higher** scores for **males** for “I have nothing to hide from (tech) companies tracking my online activity” and “I’d rather share my email address than pay for an app.”

Those in age group **25-34 yo** are more open to share **email address than pay for an app** or to be **tracked by tech companies** compared to the other age groups.

# SIXTY-ONE PERCENT OF INTERNET USERS HAVE EXPERIENCED AT LEAST ONE THREAT IN THE PAST YEAR, WHILE POTENTIAL FINANCIAL FRAUD GENERATES MOST CONCERN

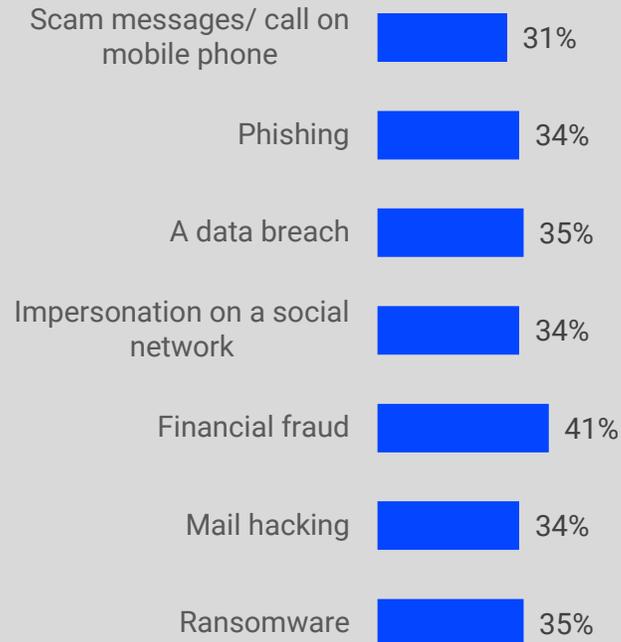
## ONLINE THREATS

### Experienced in P12M



### Worried about

Top2Box (Really worried + Terrified)



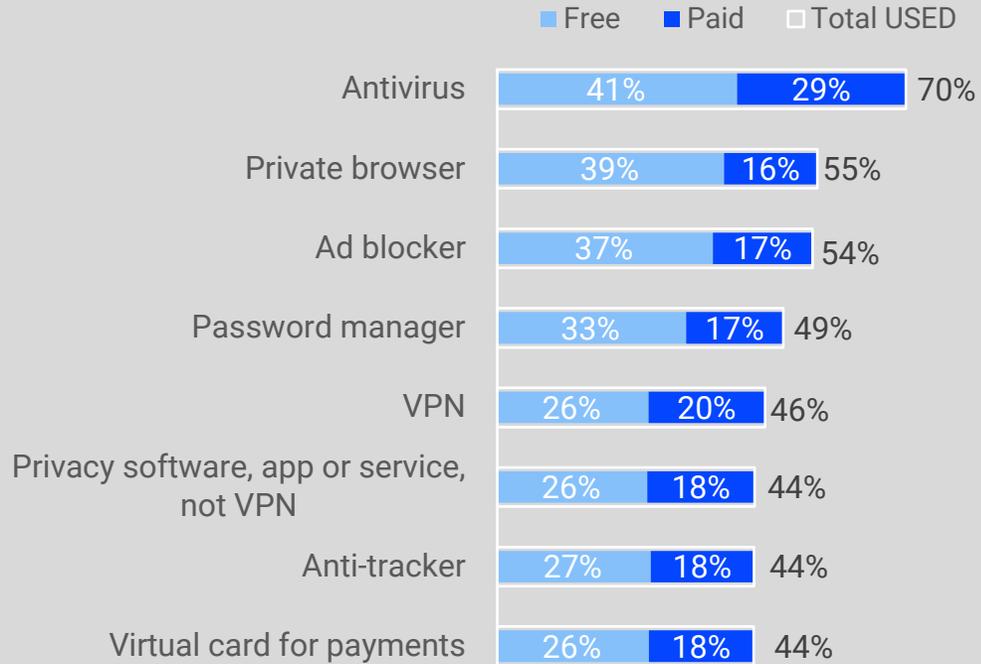
**Higher** share of **threats experienced** by **25-34** and **18-24** yo age groups and in US, AUS and UK.

Most **concerned** group is **35-44 yo**, followed by 25-34 yo.

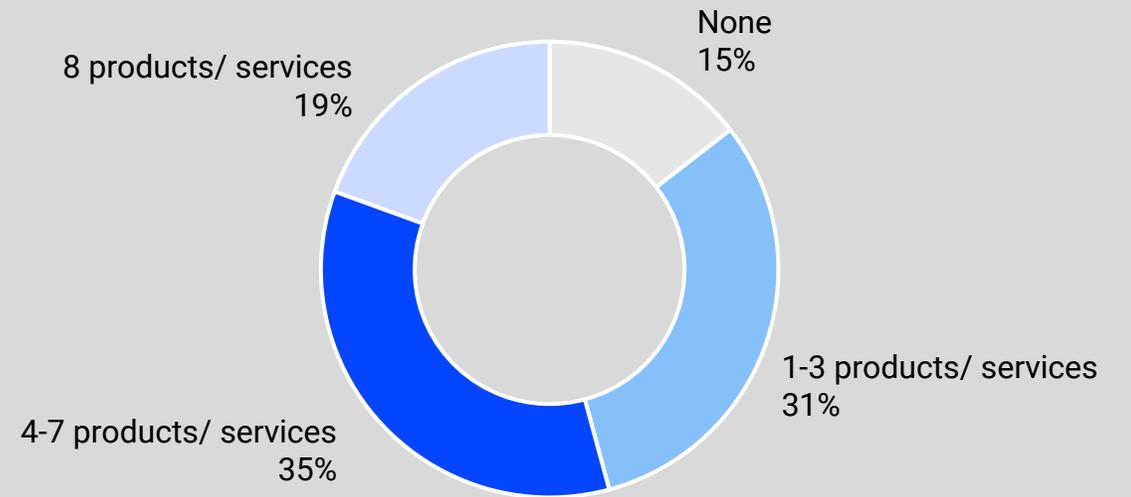
As expected, those who have experienced a threat are more **concerned**, with even **higher** scores among those who **experienced a email hacking, financial fraud, or data breach**.

# FIFTEEN PERCENT ARE NOT USING ANY PRODUCT/ SERVICE FOR ONLINE DATA SECURITY & PRIVACY ON THEIR MOST USED DEVICE FOR PERSONAL ONLINE ACTIVITIES

Type of product/ service used for online data security & privacy



Number of products/ services used for online data security & privacy



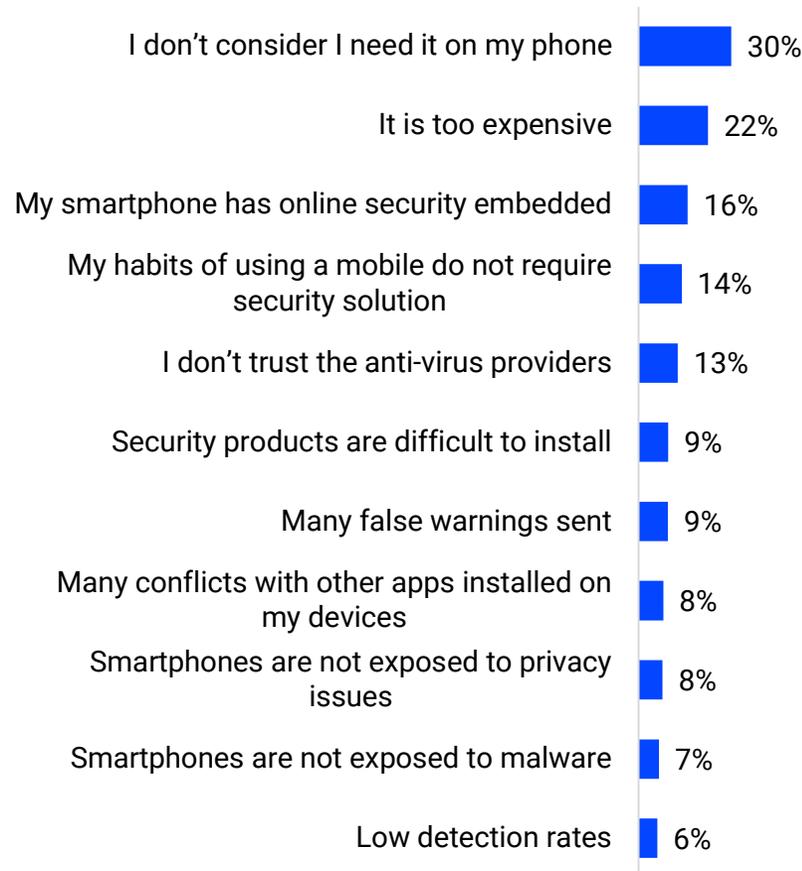
## AMONG DEVICES USED FOR PERSONAL ONLINE ACTIVITIES, ANDROID MOBILE PHONES AND LAPTOP/ DESKTOPS ARE MORE EXPOSED THAN OTHER DEVICES

	MOST USED DEVICE FOR PERSONAL ONLINE ACTIVITIES					
	Mobile phone with Android	Mobile phone with iOS (Apple)	Tablet with Android	iPad	Mac (iOS) Laptop/ Desktop	Laptop/ Desktop with Windows
<i>base= ... respondents</i>	3290	2113	738	744	652	2370
<b>WITHOUT Antivirus</b>	31%	38%	24%	28%	24%	19%
<b>WITHOUT Private browser</b>	46%	35%	38%	34%	40%	53%
<b>WITHOUT Ad blocker</b>	50%	46%	36%	33%	37%	44%
<b>WITHOUT Password manager</b>	51%	44%	42%	41%	39%	60%
<b>WITHOUT VPN</b>	54%	50%	44%	44%	43%	61%
<b>WITHOUT Privacy software, app or service</b>	57%	52%	40%	37%	50%	64%
<b>WITHOUT Anti-tracker</b>	60%	53%	41%	42%	43%	61%
<b>WITHOUT Virtual card for payments</b>	56%	43%	43%	45%	50%	70%

# RAISING AWARENESS ABOUT THREATS ON MOBILE DEVICES MIGHT FURTHER DRIVE THE USAGE OF ANTIVIRUS ON MOBILE DEVICES

30% do not use antivirus on their mobile device

## Reasons for not using a security service/ antivirus on mobile device



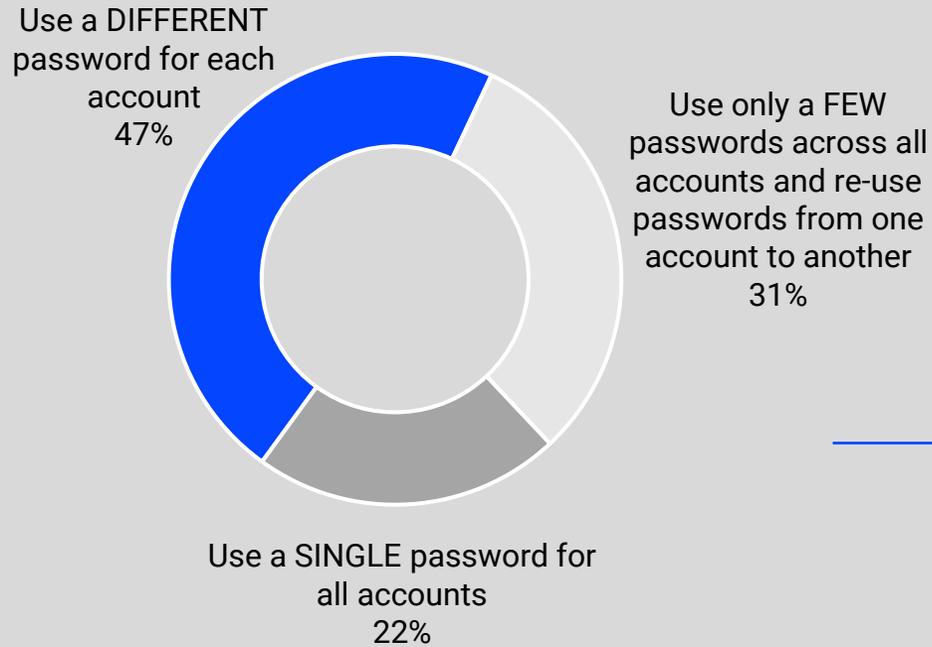
	18-24 y.o.	25-34 y.o.	35-44 y.o.	45-54 y.o.	55-65 y.o.
N=	485	550	504	483	274
I don't consider I need it on my phone	38%	30%	25%	30%	24%
It is too expensive	30%	22%	17%	17%	26%
My smartphone has online security embedded	13%	20%	15%	14%	18%
My habits of using a mobile do not require security solution	12%	18%	11%	11%	19%
I don't trust the anti-virus providers	17%	13%	9%	15%	5%
Security products are difficult to install	15%	9%	8%	9%	4%
Many false warnings sent	9%	15%	11%	6%	4%
Many conflicts with other apps installed on my devices	7%	11%	8%	9%	3%
Smartphones are not exposed to privacy issues	9%	9%	7%	6%	8%
Smartphones are not exposed to malware	6%	10%	7%	6%	3%
Low detection rates	6%	9%	6%	4%	3%

■ Significantly higher difference vs Total  
■ Significantly lower difference vs Total

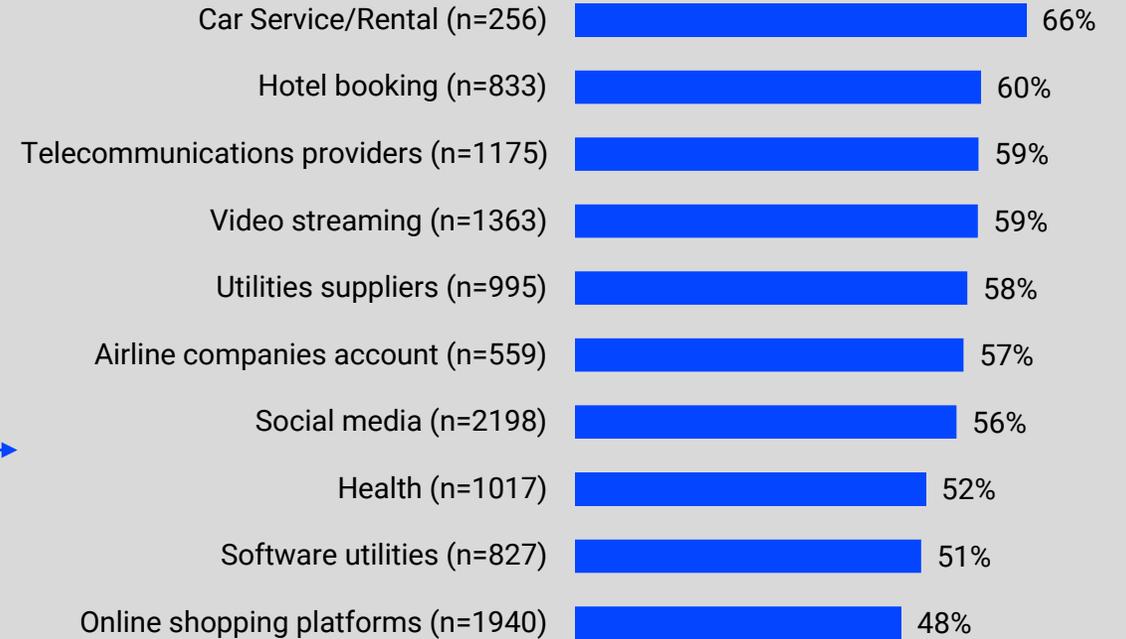
Q11.2 Why don't you use a security solution/ antivirus on your mobile device? N=2296; Respondents who do not use antivirus on their mobile device (phone or tablet)

# SLIGHTLY MORE THAN HALF OF RESPONDENTS ARE USING THE SAME OR A FEW PASSWORDS ACROSS ONLINE ACCOUNTS

Password usage across accounts



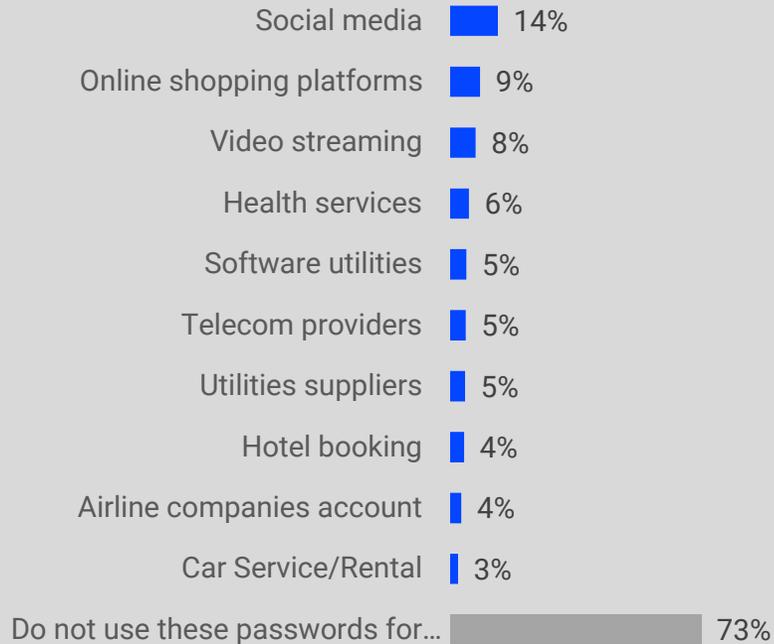
Credentials used in combination with other accounts



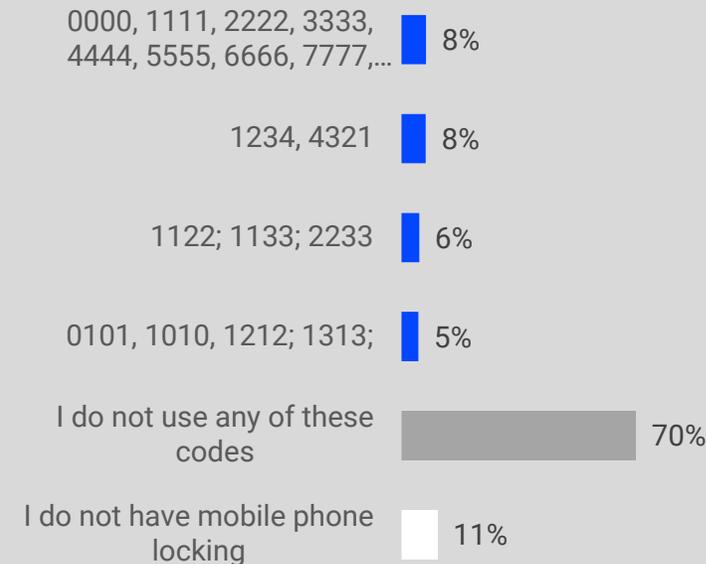
# APPROXIMATELY A QUARTER OF RESPONDENTS ARE USING SIMPLE PASSWORDS FOR ONLINE ACCOUNTS AND 30% ARE NOT SECURING THEIR MOBILE PHONE

## Simple passwords\* used for online services

\*123456, 123456789, qwerty, Password, 12345, qwerty123, 1q2w3e, 12345678, 111111, 1234567890



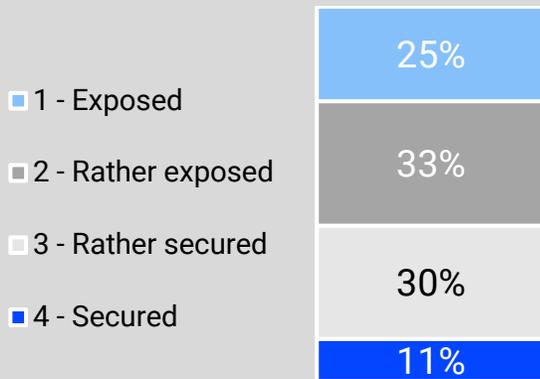
## Simple passwords used for mobile phone



**Males are more likely to use a simple password for their account vs females (31% vs 23%).**  
**Higher usage** of simple passwords among 18-44 vs 54-65 yo.

**ALMOST 60% OF USERS ARE EXPOSED OR QUITE EXPOSED CONSIDERING BEHAVIORS RELATED TO SECURITY PRODUCTS USAGE, PASSWORD USAGE ACROSS PLATFORMS, AND ACCOUNT DETAILS SHARING. THEY ARE SLIGHTLY YOUNGER (18-24) VS TOTAL AND MORE LIKELY FEMALE**

SEGMENTS BY SECURITY PROFILE\*



Segments' profile		1 - Exposed	2 - Rather exposed	3 - Rather secured	4 - Secured
Sharing account details with family and friends	Video Streaming	72%	57%	43%	14%
	Social Media	51%	35%	30%	12%
Passwords' usage across accounts	Use a SINGLE password for all accounts	50%	20%	5%	0%
	Use only a FEW passwords across all accounts	32%	48%	25%	10%
	Use a DIFFERENT password for each account	18%	32%	70%	90%
Not using	Antivirus	55%	31%	15%	5%
	Password manager	70%	52%	45%	22%
	VPN	74%	57%	46%	22%
Age	18-24 y.o.	15%	16%	14%	7%
	25-34 y.o.	19%	22%	22%	22%
	35-44 y.o.	19%	22%	22%	20%
	45-54 y.o.	23%	20%	21%	25%
	55-65 y.o.	23%	21%	21%	25%
Gender	Female	57%	49%	44%	47%
	Male	43%	51%	56%	53%

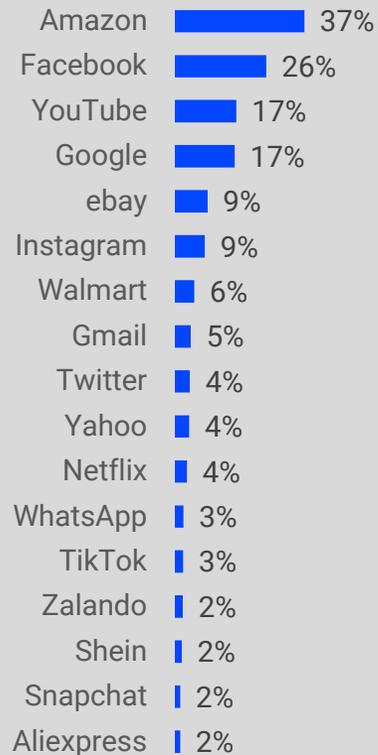
■ Significantly higher difference vs Total  
■ Significantly lower difference vs Total

*\*Based on number of online security services/ products used, whether using the same password across platforms, whether sharing account details with family/ friends*

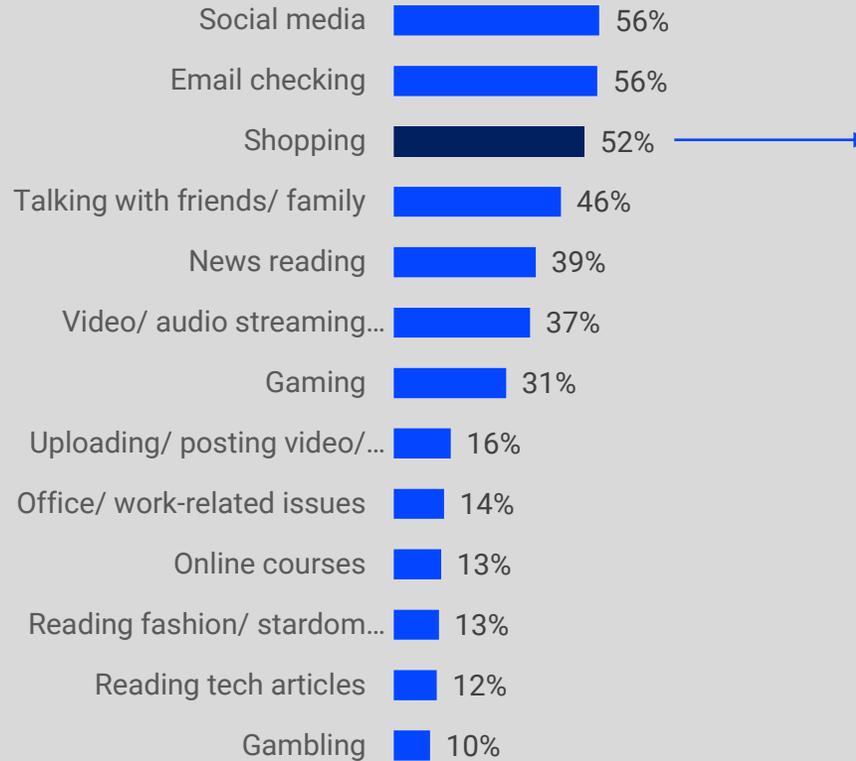
# ONLINE USAGE PROFILES

## SOCIAL MEDIA AND ONLINE RETAILERS ARE THE MOST VISITED WEBSITES

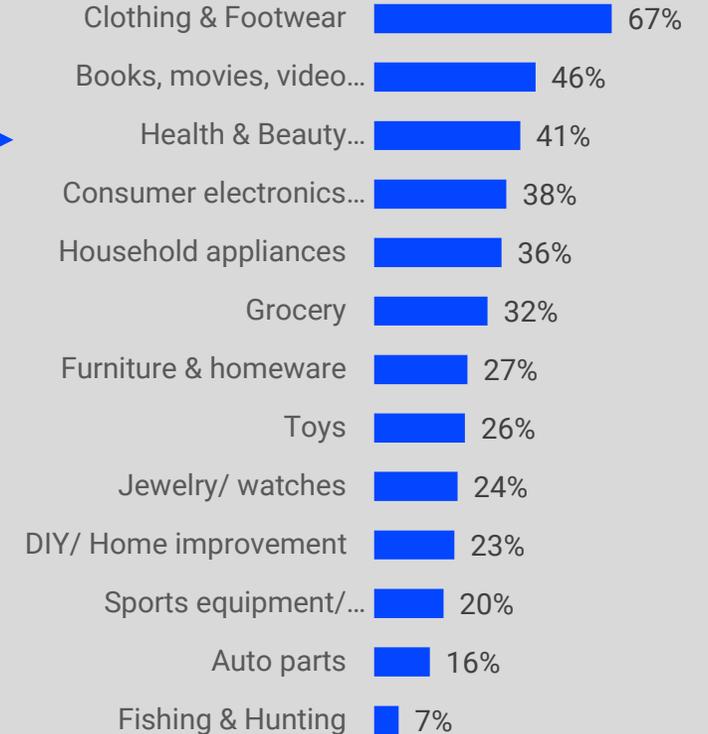
### Top 3 websites visited - declarative



### Top 5 online activities



### Products/ services purchased online



P3. Which are the top 3 websites you visit most often? N=10124; All respondents

P1. What are the top 5 activities you do online? N=10124; All respondents

P2. What type of products/ services do you usually buy online? N=5296; Respondents who shop online

**TOP ONLINE ACTIVITIES ARE DIFFERENT ACROSS GENDERS AND AGE GROUPS**

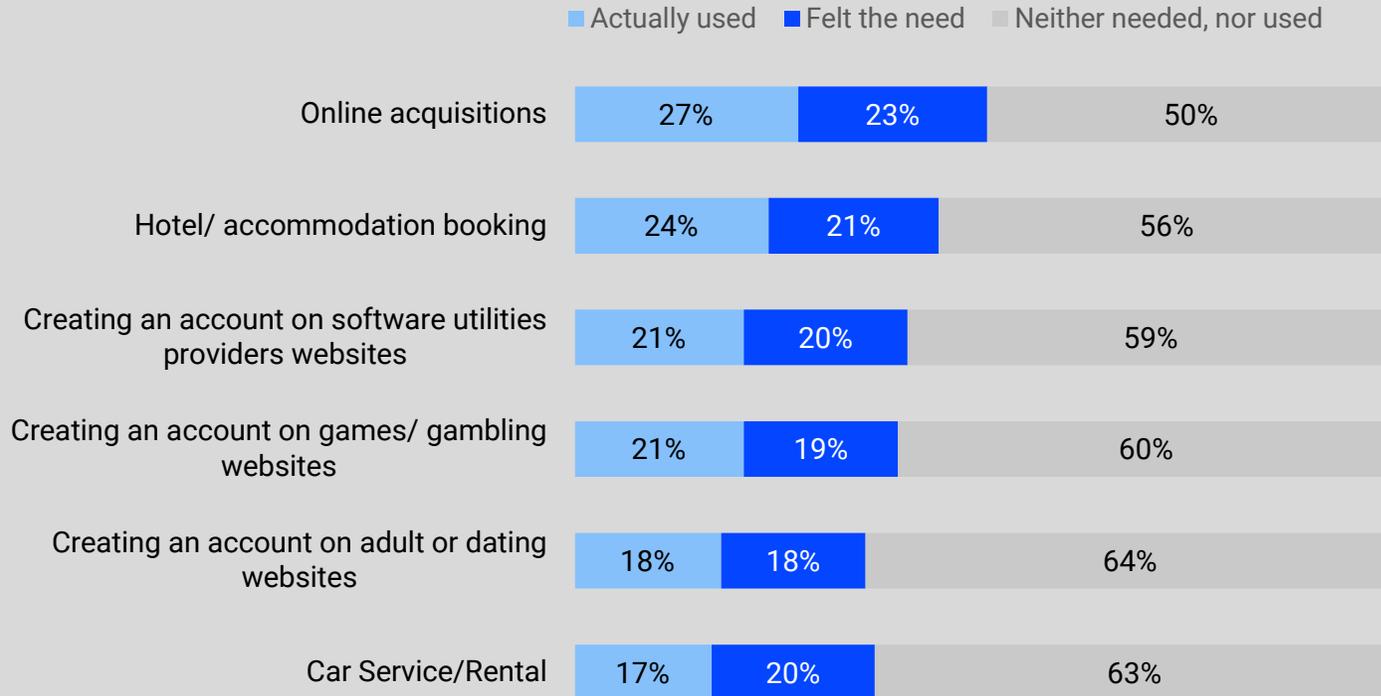
	Total	Females	Males	18-24 y.o.	25-34 y.o.	35-44 y.o.	45-54 y.o.	55-65 y.o.
<i>Base= ... respondents</i>	<b>10124</b>	5078	5046	1380	2164	2201	2304	2075
Social media	<b>56%</b>	60%	52%	60%	54%	60%	57%	53%
Email checking	<b>56%</b>	59%	53%	27%	40%	51%	68%	81%
Shopping	<b>52%</b>	58%	47%	41%	49%	55%	54%	59%
Talking with friends/ family	<b>46%</b>	53%	39%	47%	43%	44%	46%	50%
News reading	<b>39%</b>	35%	43%	19%	27%	39%	44%	58%
Video/ audio streaming watching/ listening	<b>37%</b>	35%	40%	38%	41%	40%	39%	30%
Gaming	<b>31%</b>	29%	32%	43%	34%	33%	28%	21%
Uploading/ posting video/ audio content on social media/ blogs	<b>16%</b>	16%	15%	23%	21%	17%	14%	9%
Office/ work-related issues	<b>14%</b>	11%	17%	8%	15%	16%	16%	14%
Online courses	<b>13%</b>	12%	14%	23%	15%	16%	8%	8%
Reading fashion/ stardom news	<b>13%</b>	14%	11%	12%	15%	14%	12%	10%
Reading tech articles	<b>12%</b>	7%	17%	12%	12%	14%	9%	13%
Gambling	<b>10%</b>	9%	12%	10%	13%	14%	9%	6%

■ Significantly higher difference vs **Total**  
■ Significantly lower difference vs **Total**

P1. What are the top 5 activities you do online? N=10124; All respondents

## IN HALF OR MORE OF CASES, ONLINE USERS DID NOT NEED, NOR USED A VIRTUAL CARD

### VIRTUAL CARD USAGE IN THE PAST 6 MONTHS



For all type of analyzed activities, **males use** virtual card in a **higher** proportion than females.

Across age groups, the **lowest usage** is among **55+** (with less than 10% usage), followed by 45-54 (also with lower usage vs total), while the **highest** is among those aged **18-34**.

# SOCIO-DEMOGRAPHICS PROFILE

## SOCIO – DEMOGRAPHICS

**Gender** Male: 50% Female: 50%



**Mean** 42

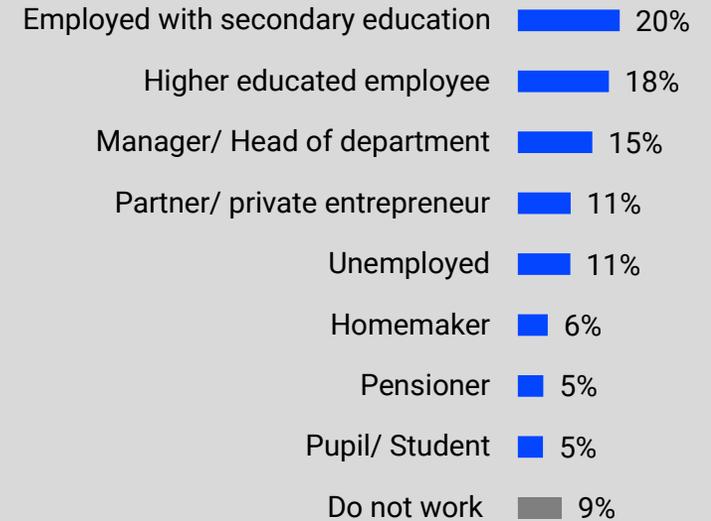
**Household size** 3.0 Persons

**Children in household** 0.7 Persons

### Education

Low (8 classes)	9%
Middle (post secondary school)	54%
High (University/ PhD)	37%

### Occupation





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