

**1. What is your gender?**

- ☐ Female
- ☐ Male
- ☐ Other

**SD01 Gender**

1 = Female  
2 = Male  
3 = Other  
-9 = Not answered

**2. How old are you?**

I am  years old

**SD02\_01 I am ... years old**

Free input (integer)

### 3. General perceptions and concerns about privacy

Please indicate the extent to which you agree or disagree with each statement by ticking the appropriate number.

	Strongly disagree 1	Somewhat disagree 2	Neutral 3	Somewhat agree 4	Strongly Agree 5
I am aware of the privacy issues and practices in our society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I follow the news and developments about the privacy issues and privacy violations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I keep myself updated about privacy issues and the solutions that companies and the government employ to ensure our privacy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compared to others, I am more sensitive about the way companies handle my personal information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To me, it is the most important thing to keep my information privacy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compared to others, I tend to be more concerned about threats to my information privacy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**PP02\_01** I am aware of the privacy issues and practices in our society.  
**PP02\_02** I follow the news and developments about the privacy issues and privacy violations.  
**PP02\_03** I keep myself updated about privacy issues and the solutions that companies and the government employ to ensure our privacy.  
**PP02\_04** Compared to others, I am more sensitive about the way companies handle my personal information.  
**PP02\_05** To me, it is the most important thing to keep my information privacy.  
**PP02\_06** Compared to others, I tend to be more concerned about threats to my information privacy.  
 1 = Strongly disagree [1]  
 2 = Somewhat disagree [2]  
 3 = Neutral [3]  
 4 = Somewhat agree [4]  
 5 = Strongly Agree [5]  
 -9 = Not answered

	Never 1	Rarely 2	Sometimes 3	Often 4	Very often 5
How often have you been a victim of what you felt was an improper invasion of privacy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How much have you heard or read during the past year about the use and potential misuse of the information collected from the Internet?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often have you experienced incidents where your personal information was used by a company without your authorization?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**PP06\_01** How often have you been a victim of what you felt was an improper invasion of privacy?

**PP06\_02** How much have you heard or read during the past year about the use and potential misuse of the information collected from the Internet?

**PP06\_03** How often have you experienced incidents where your personal information was used by a company without your authorization?

1 = Never [1]  
 2 = Rarely [2]  
 3 = Sometimes [3]  
 4 = Often [4]  
 5 = Very often [5]  
 -9 = Not answered

#### 4. Voice-controlled virtual assistant

A virtual assistant is a software agent that can perform tasks based on voice commands, without the requirement for keyboard input. Some examples of commercially available virtual assistants are Apple's Siri, Amazon Alexa, Microsoft's Cortana, and Google Assistant. Among other capabilities, virtual assistants can set reminders, manage contacts, play music, take purchase orders, send messages and calls, provide weather reports, and manage smart home devices.

How often do you use a voice-controlled virtual assistant in your daily life?

☐  
Never

☐  
Rarely

☐  
Sometimes

☐  
Often

☐  
Very often

**PP05 VCVA use**

- 1 = Never
- 2 = Rarely
- 3 = Sometimes
- 4 = Often
- 5 = Very often
- 9 = Not answered

Are you interested in starting or continuing to use a voice-controlled virtual assistant?

☐  
Not at all  
interested

☐  
Slightly interested

☐  
Somewhat  
interested

☐  
Quite interested

☐  
Very interested

**PP15 VCVA usage interest**

- 1 = Not at all interested
- 2 = Slightly interested
- 3 = Somewhat interested
- 4 = Quite interested
- 5 = Very interested
- 9 = Not answered

On the next page, you will watch a video with sound. Please activate the speakers of your device or use headphones. TextSoundcheck

To confirm that sound is activated, play the audio clip below.

Soundcheck

0:00 / 0:00

Enter the number spoken in the audio clip (in digits):

**F105\_01** Enter the number spoken in the audio clip (in digits)  
Free input (integer)

Reminder: This page requires sound, keep using your speakers or headphones.

**Please attentively watch this video (1:44 minutes) about the privacy implications of voice data.**

The 'next' button will automatically appear when you are done watching the video.

VIDEO EINBINDUNG

THE VIDEO USED IN THE STUDY IS AVAILABLE HERE:  
[https://www.youtube.com/watch?v=Gr22YqS1\\_VA](https://www.youtube.com/watch?v=Gr22YqS1_VA)

0:00 / 1:44

vid\_delay

**5. Please enter the code displayed in the video.**

(not case-sensitive)

**PP12 Video code (attention check)**

-2 = other text response

-9 = Not answered

**PP12s Video code (attention check) (free text)**

Free text

**6. Before you watched the video, were you aware that these types of information can be inferred from voice recordings?**

	Not at all 1	Slightly 2	Somewhat 3	Quite well 4	Very well 5
Geographical origin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gender and age	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mental health information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physical health information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of intoxication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moods and emotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sleepiness and fatigue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personality traits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**PP07\_10 Geographical origin****PP07\_02 Gender and age****PP07\_03 Mental health information****PP07\_01 Physical health information****PP07\_08 Level of intoxication****PP07\_09 Moods and emotions****PP07\_07 Sleepiness and fatigue****PP07\_04 Personality traits**

1 = Not at all [1]

2 = Slightly [2]

3 = Somewhat [3]

4 = Quite well [4]

5 = Very well [5]

-9 = Not answered

**7. How worried are you about these possible inferences?**

- ☐ Not at all worried      ☐ Slightly worried      ☐ Somewhat worried      ☐ Quite worried      ☐ Very worried

**PP14 Worries**

- 1 = Not at all worried
- 2 = Slightly worried
- 3 = Somewhat worried
- 4 = Quite worried
- 5 = Very worried
- 9 = Not answered

**8. Why do you feel this way? Please explain your reasoning in two or more sentences.****PP09\_01 [01]**

Free text

**9. Prior to this questionnaire, how often have you consciously thought about this issue when using a microphone-equipped device?**

- ☐ Never      ☐ Rarely      ☐ Sometimes      ☐ Often      ☐ Very often

**PP16 Prior thoughts**

- 1 = Never
- 2 = Rarely
- 3 = Sometimes
- 4 = Often
- 5 = Very often
- 9 = Not answered

**10. What do you think, how common is it for companies to draw such inferences from voice recordings?**

- ☐ Very uncommon      ☐ Somewhat uncommon      ☐ Undecided      ☐ Somewhat common      ☐ Very common

**PP11 Prevalence estimation**

- 1 = Very uncommon
- 2 = Somewhat uncommon
- 3 = Undecided
- 4 = Somewhat common
- 5 = Very common
- 9 = Not answered

**11. Please rate how concerned you would be if a company used voice recordings to infer personal information about you without your awareness.**

Geographical origin

Unconcerned	Slightly concerned	Somewhat concerned	Quite concerned	Very concerned
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Gender and age

Unconcerned	Slightly concerned	Somewhat concerned	Quite concerned	Very concerned
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Mental health information

Unconcerned	Slightly concerned	Somewhat concerned	Quite concerned	Very concerned
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Physical health information

Unconcerned	Slightly concerned	Somewhat concerned	Quite concerned	Very concerned
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Level of intoxication

Unconcerned	Slightly concerned	Somewhat concerned	Quite concerned	Very concerned
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Moods and emotions

Unconcerned	Slightly concerned	Somewhat concerned	Quite concerned	Very concerned
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Sleepiness and fatigue

Unconcerned	Slightly concerned	Somewhat concerned	Quite concerned	Very concerned
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Personality traits

Unconcerned	Slightly concerned	Somewhat concerned	Quite concerned	Very concerned
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**PP10\_10** Geographical origin  
**PP10\_02** Gender and age  
**PP10\_03** Mental health information  
**PP10\_01** Physical health information  
**PP10\_08** Level of intoxication  
**PP10\_09** Moods and emotions  
**PP10\_07** Sleepiness and fatigue  
**PP10\_04** Personality traits  
 1 = Unconcerned [1]  
 2 = Slightly concerned [2]  
 3 = Somewhat concerned [3]  
 4 = Quite concerned [4]  
 5 = Very concerned [5]  
 -9 = Not answered



Previously in this survey, you were asked about your interest in voice-controlled virtual assistants, such as Apple's Siri and Amazon Alexa. You are now asked about this a second time.

Please answer based on your current thoughts and feelings, independent from your previous response:

**Are you interested in starting or continuing to use a voice-controlled virtual assistant?**

- ☐ Not at all interested      ☐ Slightly interested      ☐ Somewhat interested      ☐ Quite interested      ☐ Very interested

**PP17 VCVA usage interest**

- 1 = Not at all interested
- 2 = Slightly interested
- 3 = Somewhat interested
- 4 = Quite interested
- 5 = Very interested
- 9 = Not answered

**12. Please indicate the extent to which you agree or disagree with each statement by ticking the appropriate number.**

	Strongly disagree 1	Somewhat disagree 2	Neutral 3	Somewhat agree 4	Strongly agree 5
Other people come to me for advice on new technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, I am among the first in my circle of friends to acquire new technology when it appears	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can usually figure out new high-tech products and services without help from others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I keep up with the latest technological developments in my areas of interest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy the challenge of figuring out high-tech gadgets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find I have fewer problems than other people in making technology work for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer to use the most advanced technology available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Show that you are paying attention by skipping this row without making a tick	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find new technologies to be mentally stimulating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning about technology can be as rewarding as the technology itself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**F102\_01** ☐ Other people come to me for advice on new technologies

**F102\_02** ☐ In general, I am among the first in my circle of friends to acquire new technology when it appears

**F102\_03** ☐ I can usually figure out new high-tech products and services without help from others

**F102\_04** ☐ I keep up with the latest technological developments in my areas of interest

**F102\_05** ☐ I enjoy the challenge of figuring out high-tech gadgets

**F102\_06** ☐ I find I have fewer problems than other people in making technology work for me

**F102\_07** ☐ I prefer to use the most advanced technology available

**F102\_11** Show that you are paying attention by skipping this row without making a tick

**F102\_08** ☐ I find new technologies to be mentally stimulating

**F102\_09** ☐ Learning about technology can be as rewarding as the technology itself

1 = Strongly disagree [1]  
 2 = Somewhat disagree [2]  
 3 = Neutral [3]  
 4 = Somewhat agree [4]  
 5 = Strongly agree [5]  
 -9 = Not answered

**13. Do you own any devices that have a microphone? Select all that apply.**

- ☐ Phone / smartphone
- ☐ Laptop
- ☐ Tablet
- ☐ Smartwatch
- ☐ Camera
- ☐ Smart speaker (e.g., Amazon Echo, Google Home, Google Home)
- ☐ Car with voice control interface
- ☐ Voice-enabled remote control

☐ Other (please specify)

**DT01** Owned Devices: Residual option (negative) or number of selected options

Integer

**DT01\_01** Phone / smartphone

**DT01\_02** Laptop

**DT01\_03** Tablet

**DT01\_04** Smartwatch

**DT01\_05** Camera

**DT01\_07** Smart speaker (e.g., Amazon Echo, Google Home, Google Home)

**DT01\_08** Car with voice control interface

**DT01\_10** Voice-enabled remote control

**DT01\_09** Other (please specify)

1 = Not checked

2 = Checked

**DT01\_09a** Other (please specify) (free text)

Free text

**14. What is the highest level of education you have obtained?**

- ☐ Finished school with no qualifications  
☐ Still in secondary school  
☐ GCSE Level education (e.g. GCSE, O-Levels, Standards)  
☐ A-Level education (e.g. A, AS, S-Levels, Highers)  
☐ Some undergraduate education (i.e. university examinations but not completed degree)  
☐ Degree or Graduate education (e.g. BSc, BA)  
☐ Post-graduate education (e.g. MSc, MA)  
☐ Doctorate degree  
☐ Vocational education (e.g. NVQ, HNC, HND)  
☐ Other degree or qualification (please specify):

**SD12 Level of education**

16 = Finished school with no qualifications  
 17 = Still in secondary school  
 13 = GCSE Level education (e.g. GCSE, O-Levels, Standards)  
 14 = A-Level education (e.g. A, AS, S-Levels, Highers)  
 3 = Some undergraduate education (i.e. university examinations but not completed degree)  
 4 = Degree or Graduate education (e.g. BSc, BA)  
 5 = Post-graduate education (e.g. MSc, MA)  
 18 = Doctorate degree  
 6 = Vocational education (e.g. NVQ, HNC, HND)  
 12 = Other degree or qualification (please specify):  
 -9 = Not answered

**SD12\_12 Other degree or qualification (please specify)**

Free text

**15. Do you have professional experience in the following areas?**

## Data protection law

no experience	little experience	some experience	much experience	very much experience
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## Computer science (e.g. as a programmer, technical IT consultant, or system administrator)

no experience	little experience	some experience	much experience	very much experience
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## Data mining

no experience	little experience	some experience	much experience	very much experience
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## Information technology security (IT security)

no experience	little experience	some experience	much experience	very much experience
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**SD25\_01** Data protection law**SD25\_02** Computer science (e.g. as a programmer, technical IT consultant, or system administrator)**SD25\_03** Data mining**SD25\_04** Information technology security (IT security)

1 = no experience

2 = little experience

3 = some experience

4 = much experience

5 = very much experience

-9 = Not answered

**16. What is your monthly net income?**

Net income is defined as your total income after tax and social security deductions.

The amounts below are in British Pound (£). In case you need to convert: €1 is roughly equal to £0.9, \$1 is roughly equal to £0.8.

- ☐ I do not have a personal income
- ☐ less than £250
- ☐ £250 up to £500
- ☐ £500 up to £1000
- ☐ £1000 up to £1500
- ☐ £1500 up to £2000
- ☐ £2000 up to £3000
- ☐ £3000 up to £4000
- ☐ £4000 up to £5000
- ☐ £5000 or more
- ☐ Decline to answer

**SD17** Income

11 = I do not have a personal income

1 = less than £250

2 = £250 up to £500

3 = £500 up to £1000

4 = £1000 up to £1500

5 = £1500 up to £2000

6 = £2000 up to £3000

7 = £3000 up to £4000

8 = £4000 up to £5000

9 = £5000 or more

10 = Decline to answer

-9 = Not answered

**17. What was this study about?**

To show if we have expressed ourselves clearly enough, please tick the description that best reflects the topic of this study.

- ☐ Health effects of urban air pollution
- ☐ Privacy concerns related to voice recordings
- ☐ Telecommunications in India
- ☐ Professional music production
- ☐ Health concerns about wireless device radiation
- ☐ Landlord and tenant privacy rights

**F101 Attention check**

- 1 = Health effects of urban air pollution
- 2 = Privacy concerns related to voice recordings
- 3 = Telecommunications in India
- 4 = Professional music production
- 5 = Health concerns about wireless device radiation
- 6 = Landlord and tenant privacy rights
- 9 = Not answered

**Would you like to comment this questionnaire, or would you like to add information for us to better understand your answers?**

Do you think, this questionnaire needs improvement? Did you feel some question were unclear, or did you feel unpleasant answering specific questions? Please leave us notes.

**SD18\_01 [01]**

Free text