Question in Project:

Internet of Things (English Version)

Question Topic:

Digitalization/ Use of digital systems

Construct:

Problems encountered when using internet connected devices/systems

General Information:

Note: The item was tested both in English and German.

Question Text:

English version: Have you encountered any of the following problems when using the devices or systems that are connected to the internet?

German version: Sind Sie bei der Nutzung von Geräten oder Systemen, die mit dem Internet verbunden sind, schon einmal auf folgende Probleme gestoßen?

Instruction:

English version: Tick all that apply.

German version: Mehrfachnennungen sind möglich.

Answer Categories:

English version:
a) Problems with the privacy and protection of information about me and my family generated by those devices or systems
b) Safety and security problems, for example that the device/system was hacked, has become harmful for other objects or for people
c) Lack of skills to use those devices or systems
d) Lack of compatibility with other devices or systems
e) Other problems:_____
f) I have not encountered any problem

German version:
a) Probleme mit der Privatsphäre und dem Schutz von Informationen über mich und meine Familie, die durch solche Geräte oder Systeme erzeugt werden
b) Sicherheitsprobleme, z. B. dass das Gerät/System gehackt wurde oder sich als schädlich für andere Objekte oder für Menschen herausgestellt hat
c) Mangelnde Kenntnisse im Umgang mit diesen Geräten oder Systemen
d) Mangelnde Kompatibilität mit anderen Geräten oder Systemen
e) Andere Probleme:_____
f) Ich bin auf kein Problem gestoßen

Cognitive Techniques:

Specific Probing.
Respondents who answered both question Z3 (wearables) and question Z4 (problems) and who said they used any other device in addition to wearables (question Z1) received a specific probe about the devices they had in mind while answering question Z4. With this probe we wanted to find out if there is a question order effect in the way that respondents who receive Z3 before Z4 think only about wearable devices (and not about devices or systems in general) when answering question Z4. Additionally, question Z4 included an "Other" answer option so that respondents could type in additional problems that were not mentioned in the answer categories. The goal of this "probe"/answer option was to find out whether the list of answer options is exhaustive and clear.

Findings for Question:

Only respondents who said that they have used any of the devices or systems mentioned in question Z1 received question Z4, which asked them for any problems they had encountered when using these devices or systems. In accordance with the quotas defined, 40 respondents in each country received question Z4. Due to the possibility to select multiple answer categories, percentages do not add up to 100 percent.
Most respondents in both countries said that they had not encountered any problem so far (UK: 57.5%, DE: 47.5%). The problems most frequently selected were "lack of skills to use those devices or systems" (UK: 20%, DE: 32.5%) and "safety and security problems" (UK: 17.5%, DE: 20%).
The "other problems" category was only selected by two German (and no British) respondents. These two respondents mentioned "financial resources" (TP83_DE) and "problems with the speech recognition" (TP 84_DE) as other problems. While the first additional problem seems to refer to the (subjectively) high costs involved in purchasing internet-connected devices or systems, the latter seems to refer to the (lack of) technical sophistication of these devices or systems. Given that both problems do not seem to tap exactly into the construct that question Z4 intends to measure, the list of answer options may not need to be extended.

Respondents who answered both question Z3 (wearables) and question Z4 (problems) and who said they used any other device in addition to wearables (question Z1) received a specific probe about the devices they had in mind while answering question Z4. A total of 29 respondents received this probe (UK: n=17, DE: n=12). Of these, 14 respondents (48.3%) said they had only thought about wearable devices (and not about devices or systems in general) when answering question Z4. This finding suggests an order effect in the way that many respondents who receive Z3 before Z4 interpret question Z4 as referring only to wearable devices.

Comments on question wording/translation:
Similar to question Z2, the phrase "and my family" in answer option a) does not apply to people living alone. Therefore, we suggest deleting it.

Recommendations:

Question: We recommend asking question Z4 before question Z3 in order to reduce the likelihood of respondents interpreting question Z4 as referring only to wearable devices.
Answer category a): Given that the phrase "and my family" does not apply to respondents who live alone, we suggest deleting it:
"Problems with the privacy and protection of information about me generated by those devices or systems."