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Leiden
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university of
groningen

Follow-up to the survey on the use of
machine translation in health contexts



Two years ago, Maria moved to the Netherlands from Portugal. It was right amid the pandemic, and she moved to take up a position at a new company in Rotterdam.

Maria is a native speaker of Portuguese, and she also speaks English. She has taken two Dutch courses online, so she understands and speaks rudimentary Dutch. For example, she can ask for a drink or have short conversations with neighbors, but not enough to feel fully comfortable speaking Dutch fluently in all situations.

In 2021, she received a letter from the RIVM inviting her to get vaccinated against COVID-19. The letter is in Dutch.

- 1) What do you think about this case?**
- 2) What do you think Maria can do in this situation with the letter?**
- 3) If you receive a letter from the RIVM in Dutch, what do you do?**

Because the letter mentioned COVID-19 and vaccinatie, and Maria had been waiting for more information on when and how she could get vaccinated, it was very important for Maria to understand the letter completely and thoroughly in all its detail.

She tackles this by trying to read the letter top to bottom, sentence by sentence. The letter is hard to understand. She does not know many of the words used, and she feels increasingly nervous.

- 1) Why do you think Maria feels this way?**
- 2) Have you ever found yourself in a similar situation?**
- 3) What would you recommend Maria to do next?**

Maria decides to use Google Translate. She opens the app on her phone, and using the camera, she scans the letter.

It is rather challenging.

- 1) How would you say her user experience with the app is?**
- 2) What kind of problems do you think she might face with this technology?**
- 3) Have you ever found yourself in a similar situation?**

Maria is able to make an appointment for her vaccination.

On the day of her appointment at the vaccination center, she goes to the counter, where she is asked in Dutch to present her ID and letter of invitation. She manages to understand this because the person on the counter makes a sign of the ID with her hand. Maria is nervous. Next, she is asked to fill in a health questionnaire in Dutch.

1) What would you recommend Maria to do next?

Because she has some knowledge of Dutch, and the first questions in the form do not appear to be difficult, such as *Naam*, *Achternaam*, Maria tries to answer them in Dutch.

On the second page, though, she reads three questions she does not understand.

She does not understand questions 11, 12 and 13.

10. Heeft u borstkanker (gehad)?

☐ ja ☐ nee

Zo ja, u kunt gewoon naar de vaccinatie-locatie gaan. Daar krijgt u een gesprek met de arts of verpleegkundige, zodat uw vaccinatie goed gaat.

Om welke borst gaat het?

- ☐ Linkerborst
☐ Rechterborst

11. Gebruikt u bloedverdunners of antistolling?

☐ ja ☐ nee

Zo ja, u kunt gewoon naar de vaccinatie-locatie gaan. Daar krijgt u een gesprek met de arts of verpleegkundige, zodat uw vaccinatie goed gaat.

Welke bloedverdunner gebruikte u de afgelopen week?

Welke dosis gebruikte u de afgelopen week?

Als u dit niet weet, vraag dit bij uw apotheek.

De apotheek kan u een lijst geven met uw bloedverdunners.

12. Bent u bij de trombosedienst onder behandeling?

☐ ja ☐ nee

Zo ja, maak een afspraak voor de vaccinatie. Bel daarna zo snel mogelijk naar uw eigen trombosedienst om te vragen of de vaccinatie door kan gaan of uitgesteld moet worden.

Belangrijk: u krijgt alleen een vaccinatie als u heeft gebeld met uw trombosedienst.

13. Heeft u een stollingsstoornis?

☐ ja ☐ nee

Zo ja, bel dan eerst met de medische informatielijn vaccineren van de GGD op 088 767 40 80.

Doe dit voordat u naar de afspraak komt.

Kruis hieronder aan welke stollingsstoornis u heeft:

- ☐ Hemofilie
☐ Ziekte van Von Willebrand
☐ Tekort aan bloedplaatjes (trombopathie / trombopenie)
☐ Anders

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☐ Anders

- 1) What would you recommend Maria to do next?
- 2) Have you ever found yourself in a similar situation?

Maria asks for help from the young woman behind the counter. She asks in Dutch if she can explain what is “bloedverdunners of antistolling”, “trombosedienst onder behandeling”, and “stollingsstoornis” by pointing at the form with her finger.

She looks surprised. She looks at the next counter, and it is empty. She looks behind, and everyone seems busy. She then tries to start a sentence a couple of times and finally says in English that these are diseases.

- 1) What would you recommend Maria to do next?
- 2) Have you ever found yourself in a similar situation?

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Maria turns to her phone, opens the Google Translate app, and types the words she does not understand.

1) In your opinion, is Maria taking a risk by using Google Translate?

Maria turns to her phone, opens the Google Translate app, and types the words she does not understand.

We are going to use a scale for the following questions:

5 = to a very high degree

4 = to a high degree

3 = to a moderate degree

2 = to a low degree

1 = not at all

Is the scale clear?

Maria turns to her phone, opens the Google Translate app, and types the words she does not understand.

What level of understanding do you think Maria will have and will Maria understand the text? Does Maria understand the text...

5 = to a very high degree

4 = to a high degree

3 = to a moderate degree

2 = to a low degree

1 = not at all

Maria turns to her phone, opens the Google Translate app, and types the words she does not understand.

What degree of risk of significant harm is Maria exposed to if using the app? Is Maria's health at risk?

5 = to a very high degree

4 = to a high degree

3 = to a moderate degree

2 = to a low degree

1 = not at all

Maria turns to her phone, opens the Google Translate app, and types the words she does not understand.

What degree of trust should Maria have in these translations? Should Maria trust these translations?

5 = to a very high degree

4 = to a high degree

3 = to a moderate degree

2 = to a low degree

1 = not at all

Maria turns to her phone, opens the Google Translate app, and types the words she does not understand.

What degree of vulnerability do you think Maria has while using the app? Is Maria at risk of being vulnerable?

5 = to a very high degree

4 = to a high degree

3 = to a moderate degree

2 = to a low degree

1 = not at all

Are there any other comments about this scenario or related scenarios you can think of?

Training - follow-up questions

Before we end the interview, we also wanted to ask you what sort of training on using these machine translation apps you would find helpful.

- 1. What type of information on machine translation would make your life easier when using these apps in health contexts?**
 - 1. For instance, do you feel you need more instructions on how to use the apps? Can you give us an example?**
 - 2. What about information about how to deal with the translations themselves? Do you have an example?**
 - 3. Would it be helpful to understand better the instances when machine translation is not advisable?**

Training - follow-up questions

Before we end the interview, we also wanted to ask you what sort of training on using these machine translation apps you would find helpful.

- 1. How would you like access to more information to make using these apps easier?**
 - 1. For instance, would you prefer to have short videos on a website or YouTube, step-by-step guides, or infographics?**
 - 2. Would you prefer to be offered free in-person training? And where?**
 - 3. If there was a website with infographics and videos explaining how to use these apps better, would you find that helpful?**