Migrant communities living in the Netherlands and their use of MT in health contexts

Valdez, S.; Guerberof-Arenas, A.; Ligtenberg, K.; Nurminen, ; M., ; et, al.

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Susana Valdez
Leiden University
s.valdez@hum.leidenuniv.nl

Ana Guerberof Arenas
University of Groningen
a.guerberof.arenas@rug.nl

Kars Ligtenberg
Radboud University
kars.ligtenberg@ru.nl

Abstract

As part of a larger project on the use of MT in healthcare settings among migrant communities, this paper investigates if, when, how, and with what (potential) challenges migrants use MT based on a survey of 201 non-native speakers of Dutch currently living in the Netherlands. Three main findings stand out from our analysis. First, the data shows that most migrants use MT to understand health information in Dutch and communicate with health professionals. How MT is used and received varies depending on the context and the L2 language level, as well as age, but not on the educational level. Second, some users face challenges of different kinds, including a lack of trust or perceived inaccuracies. Some of these challenges relate to comprehension, bringing us to our third point. We argue that more research is needed to understand the needs of migrants when it comes to translated expert-to-non-expert health communication. This questionnaire helped us identify several topics we hope to explore in the project's next phase.

1 Introduction

Access to health information has been recognized as essential (Royston et al., 2020; WHO and UNICEF, 2018), including in meeting the health-related Sustainable Development Goals (United Nations, 2020). Evidence, however, suggests that language barriers remain a significant factor contributing to disparities in the quality of care (Bernard et al., 2006; Khoong and Rodriguez, 2022; Liebling et al., 2020).

When health information is not available in a language that the patient can understand, most people resort to public online machine translation (MT) as the only available alternative (Vieira et al., 2021:1519). In the context of healthcare, MT can thus be seen as a potential facilitator of a "multilingual health system," where people from different cultural and linguistic backgrounds, such as migrants, can have access to health information and medical care in a language that they understand (e.g., Torres-Hostench, 2022:6). However, uninformed users with limited MT literacy may face potential risks when using this technology, such as assuming MT output is accurate without fully understanding its limitations (Vieira et al., 2021:1527) or assuming that MT provides privacy (Vieira et al., 2022b:18).

To tackle this topic, this paper reports on a specific use of MT to facilitate communication in healthcare settings between experts and non-experts in migrant communities in the Netherlands. The paper first reviews related work on MT-mediated communication, with a special focus on health-related contexts; then describes the survey methodology adopted and reports the results. Finally, the paper discusses the findings and shares conclusions.

2 Related Work

This section covers the work done in MT usability and MT in healthcare.

2.1 MT use initiated by non-language professionals

The first studies on the usability of MT have focused on how users of applications, tools, or webs understand MT-mediated communication. Using questionnaires, interviews, eye-trackers, and retrospective think-aloud methods, this research explores comprehensibility and/or acceptability, but also usability, defined as effectiveness, efficiency, and satisfaction. Examples of these studies are Gaspari (2004), Stewart et al. (2010), Doherty and O'Brien (2012, 2014), Castilho (2016), Castilho and O'Brien (2018) and Guerberof-Arenas et al. (2019; 2021). This pioneering work seeks to include the final user

in the translation cycle and explore how they receive MT in depth. More recently, with the growing use of public MT engines, there has been an increasing interest in examining how MT is used in various social contexts. This research has mainly examined the use of MT for gisting purposes.[1] Much has been participant-oriented in nature. Often with the use of questionnaires and less frequently with interviews, researchers have focused on "everyday" users of MT. For instance, Nurminen and Papula (2018) combined usage statistics with an end-user questionnaire to explore the use of the desktop version of PDF Translator, and Vieira et al. (2022a) investigated typical uses and perceptions of MT based on a questionnaire aimed at United Kingdom residents.

A great deal of research has also been carried out on the use of MT for L2 acquisition (Lee, 2020) or in academic settings (Bowker, 2019, 2021; Dorst et al., 2022; Loock et al., 2022). These studies have argued for the importance of training in Machine Translation Literacy. This training would entail gaining an understanding of when and where MT is unsuitable and developing the skills to effectively manage and correct translation errors (cf. Bowker and Ciro, 2019).

2.2 MT use in healthcare settings

In comparison, there are fewer empirical studies on the use of MT in healthcare settings to facilitate expert-to-non-expert communication, and, therefore, many questions remain unanswered.

On the use of MT initiated by asylum seekers, case studies conducted at detention centers in Leipzig and Ljubljana suggest that the use of MT to access official information, some of which in healthcare settings, is widespread (Fiedler and Wohlfarth, 2018; Pokorn and Čibej, 2018).

On MT use initiated by health professionals with the purpose of communicating with patients, Mehandru et al. (2022) conducted a qualitative interview study to examine how MT is currently used in these settings. They found that healthcare providers experience difficulties in the presence of language barriers due to limited time and resources, cultural differences, inadequate medical literacy rates, and accountability for communication errors. Healthcare providers relied on a combination of MT, interpreting, and their own knowledge of the patients' languages and developed communication strategies to assess if doctors-patient communication had been successful, including back-translation and testing patient comprehension.

On MT use initiated by health services to communicate public health information, Pym et al. (2022), focusing on COVID-19 vaccination information in 2021 and 2022, conducted a survey on using Google Translate on the official website of the Catalan health service. They analyzed the strategic advantages of MT and the nature of the main errors and argued for a multilingual communication policy. Turner et al. (2015) conducted a feasibility study where raters were asked to assess machine-translated public health texts from English to Chinese compared to PE versions, consistently selecting HT over PE.

Finally, Vieira et al. (2021) conducted a qualitative meta-analysis of the literature on MT in relation to medical and legal communication. From their review, we can conclude that, in healthcare, the use of MT is often described as high-risk given its implications for health, but it is also often perceived as the only available solution in these settings. The article also discusses the need for cross-disciplinary research on the use of MT in healthcare, as current research often overlooks the complexities of language and translation. The review emphasizes the importance of increasing awareness of the potential for MT to exacerbate social inequalities and put specific communities at risk.

2.3 Expert to non-expert medical translation

Translation in healthcare settings, or medical translation, is usually understood as a specific and highly specialized type of professional translation that focuses on medicine and other fields closely related to health and disease (Montalt, 2012). In healthcare settings, communication can range from highly specialized and written by experts addressing experts (e.g., clinical trial protocols or scientific papers) to those that are meant to be read and understood by non-experts or laypeople (e.g., informed consent forms or patient information leaflets).

Recent research on medical translation has mostly focused on the latter. Adopting reception-oriented approaches and mainly using offline methods (see Krings, 2005:348 for the distinction between online and offline methods), translation researchers have looked at the lay-friendliness of translated patient package inserts (Askehave and Zethsen, 2003, 2014), patients' needs for information and the suitability and readability of written resources available in hospitals (García Izquierdo, 2016; García-Izquierdo and Muñoz-Miquel, 2015), or how explicitation in translated medical texts is received by Spanish speakers living in the US (Jiménez-Crespo,

[1] MT gisting can be defined as "knowingly consuming raw machine translation with the aim of understanding as much of its meaning as needed for a specific purpose" (Nurminen, 2021:30)

2017), among other topics.

One of the aspects that these studies have in common is that they focus on how laypeople receive medical texts translated by translation professionals or experts in medical communication (including health professionals). To the best of our knowledge, no empirical study focuses on migrants' use of MT, specifically in healthcare settings.

3 Methodology

This study is part of a larger research project aiming to explore for the first time migrants' use of MT in healthcare settings in the Netherlands. In the first phase, a questionnaire elicited data mainly on if, when, and how migrants use MT in healthcare settings and their (potential) main challenges. Following this, 12 respondents participated in follow-up in-depth interviews to further explore the challenges identified in the first phase. Our idea was to obtain qualitative data to understand not only the usage but also the participants' difficulties, emotions and MT training needs. To collect this data, we applied the vignette technique, which makes use of a short story to elicit perceptions, opinions, and beliefs to typical scenarios to clarify participants' decision-making processes and allow for the exploration of actions in context (Finch, 1987). This project has the long-term goal of co-creating training material with target community members as part of an action research initiative. For reasons of space, in this paper, we report the findings from the project's first phase.

3.1 Questionnaire design and data collection

Considering the outlined research gaps, we designed a questionnaire guided by the following research questions (RQ):

RQ1: Do migrants currently living in the Netherlands use MT in health-related contexts?

RQ2: If they do, when and how do they use it?

RQ3: What are migrants' challenges when using MT in health contexts?

The questionnaire was designed in English using the online survey tool Qualtrics and following the best practices associated with using online questionnaires in Translation Studies (Mellinger and Baer, 2021). To make the questionnaire more accessible to specific targeted communities, it was professionally translated into Arabic, Italian, Portuguese, Spanish, Tigrinya, and Turkish. Nevertheless, participation was open to any non-native speaker of Dutch currently living in the Netherlands.

The questionnaire consisted of thirty-seven questions, grouped into four sections. Besides the eligibility criteria (currently living in the Netherlands and being a non-native Dutch speaker) and profile-related questions (demographic characteristics and background) of sections 1 and 2, respondents were asked in section 3 a series of multiple choice closed-ended questions to understand their use of MT in specific health-related contexts. For instance, respondents were asked if and how they use MT at a pharmacy or during a doctor's appointment. These questions were followed by open-ended questions aimed at eliciting other related contexts where MT was used and the problems participants faced when using MT in healthcare settings.

In the last section, respondents were asked about their experiences using MT in day-to-day life, which included questions about frequency of use, the type of MT system, level of satisfaction, and easiness or difficulty of use. The questionnaire in English and its translations can be accessed here: https://github.com/susanavaldez/-Health-information-accessibility-in-migrant-communities.

With respect to the analysis of the respondents' answers to open questions, the data were exported to the qualitative data analysis software ATLAS.ti where the answers were coded and organized around recurring themes using inductive coding (Saldaña, 2016).

The questionnaire was pre-tested by six non-native speakers of Dutch and received approval from Leiden University's Ethics Committee of the Faculties of Humanities and Archaeology (ref. 2022/22), which included the corresponding data management plan. The questionnaire was released in April 2022 and was available until December 2022. It was circulated online through social media and WhatsApp dedicated groups of migrants living in the Netherlands, institutions working with migrant communities, Dutch universities' newsletters and networks, and personal acquaintances. The call for respondents also took place offline by distributing flyers at local libraries and markets.

3.2 Respondents

The survey was completed by 296 participants. From these, 91 were excluded as they did not comply with the requirements (that is, non-native speakers of Dutch currently living in the Netherlands), they filled in the survey more than once, or did not answer at least 1 question of the non-demographic sections. The total number of participants was 201.

The majority of respondents, 150, moved to the Netherlands in the last ten years. Most of them are in paid work (72%) and/or studying (15%), and they hold an MA or equivalent (37%), followed by those that hold a BA or equivalent (29%) and a high

school degree (16%). Most participants are aged between 35–44 (38%) and 25–34 (29%). Finally, there was a higher number of responses from female participants (73%).

Concerning native languages, the distribution of the number of participants above 1% is as follows: Portuguese (39%), Italian (16%), Spanish (10%), English (6%), Arabic (3%), Turkish (3%), and Chinese (2%). Perhaps the higher number of participation from Portuguese, Italian and Spanish speakers is due to the native languages of the authors and collaborators of this project. Even though we reached out to institutions that work with migrant communities, this did not always translate into a high engagement level.

Regarding Dutch proficiency, a relevant number of respondents reported not knowing any Dutch (23%) or being a Beginner user in the A1 or A2 level[2] (37%). The remaining respondents reported in smaller percentages being Intermediate users or B1 (20%), Advanced users or B2 (11%), and Proficient users or C1/C2 (8%). Given these numbers, it is not surprising that most respondents reported English as the most common language used at work and in educational contexts. One hundred forty employed respondents reported English as the language used at work for reading, writing, and speaking; and 31 respondents studying also reported English as the language used in educational contexts for reading, writing, and speaking.

The participants reported that the most frequently used MT engine is Google Translate (79%), followed by DeepL (11%), and Bing Microsoft Translator (1%).

4 Results

In this section, we present the results from the questionnaire by grouping the findings into six areas: usage of MT, methods of MT usage, level of easiness and satisfaction, the importance of features, factors such as Dutch language, age, and education, MT features of value and challenges when using MT.

4.1 MT usage by migrant communities

To understand the role of MT in health contexts, the participants were asked if they use MT in six common health situations. These were face-to-face medical appointments, health-related letters, calling the doctor, buying medication, and going to a vaccination center or emergency room. For each multiple-choice question, respondents were presented with statements to choose from (they could choose more than one), such as "I don't use machine translation," "I use machine translation by typing on my mobile phone," or "Not applicable." Table 1 shows a summary of these responses. The number of respondents varies per question, and this can be seen in column N.

	I use MT	I don't use MT	Other	N/A	N
Health letters	70.16%	19.76%	6.05%	4.03%	201
Buying medication	57.14%	35.52%	5.02%	2.32%	198
Medical appointments	47.06%	31.62%	13.24%	8.09%	201
Emergency room	30.99%	27.27%	6.20%	35.54%	201
In a medical call	25.76%	50.66%	15.72%	7.86%	196
Vaccination center	26.27%	51.61%	9.22%	12.90%	196

Table 1: MT usage in healthcare settings

In total, respondents mentioned using MT in these health situations 641 times (55%) vs. 521 times (45%) where MT was not used. We can observe that most use MT to read health-related letters sent by their doctor or the Health Ministry (70.16%) and buy medication at the pharmacy or supermarket (57.14%). Respondents also reported using MT to communicate with health professionals in face-to-face medical appointments in meaningful numbers (47.06% use MT vs. 31.62% that do not use MT), indicating that MT is used in healthcare contexts also in synchronous situations. To communicate at the vaccination center or over the phone with health professionals, respondents reported using MT in smaller percentages.

Respondents that chose the "Other" option used this opportunity to explain that, instead of using MT in these health situations, they spoke in English with health professionals (68 mentions) or resorted to family members and friends to interpret for them (15 mentions). Some respondents (6) also used this option to clarify that instead of using an MT phone app, they used the web version or the browser extension. Other types of responses were doctors or receptionists translating documents when asked.

4.2 Methods of MT usage

Table 2 shows that participants use MT primarily by typing directly on the phone app or using the camera function, followed by preparing beforehand with the help of MT. Using MT by dictating or family and friends using MT for the user are the less frequent options.

[2] According to the Common European Framework of Reference for Languages (CEFR).

	I use MT				
	Before-hand	Dictate	Type	Camera	Family
Health letters	ND	5.17%	32.18%	60.34%	2.30%
Buying medica-tion	14.86%	4.73%	37.84%	41.89%	0.68%
Medical appointments	33.59%	4.69%	60.94%	ND	0.78%
Emergency room	13.33%	4%	36%	37.33%	9.33%
In a medical call	64.41%	3.39%	16.95%	10.17%	5.08%
Vaccination center	17.54%	7.02%	29.82%	43.86%	1.75%

Table 2. How MT in healthcare settings is used (For N, see Table 1)

It is when reading health-related letters that respondents use the camera function the most (60.34%), followed by typing directly in the phone app (32.18%). As Table 2 shows, when buying medication at the pharmacy or the supermarket, respondents also report opting more often for the camera function (41.89%), followed by typing directly on the phone app (37.84%).

Respondents opt more often to prepare beforehand by using MT when calling the doctor to ask a question or making an appointment (64.41%) and in face-to-face medical appointments (33.59%), followed by when buying medication at the pharmacy or the supermarket (14.86%). This is expected since these are immediate situations where using MT (synchronously) might be more complex than in interactions like reading correspondence.

4.3 Level of satisfaction and easiness of MT

After the section on MT usage in health contexts, respondents were also asked about MT in their day-to-day life. Participants were asked, "How easy or difficult is it to use machine translation?" and "Overall, how satisfied or dissatisfied are you with machine translation?" For both questions, the participants selected a statement on a 5-point Likert. Figures 1 and 2 show these results (N = 186 participants).

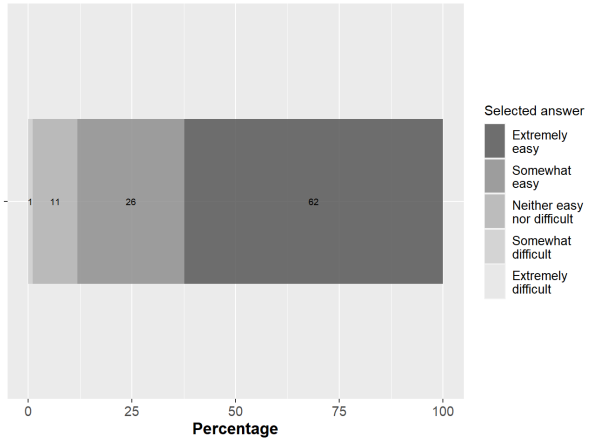

Figure 1. How easy or difficult is it to use machine translation?

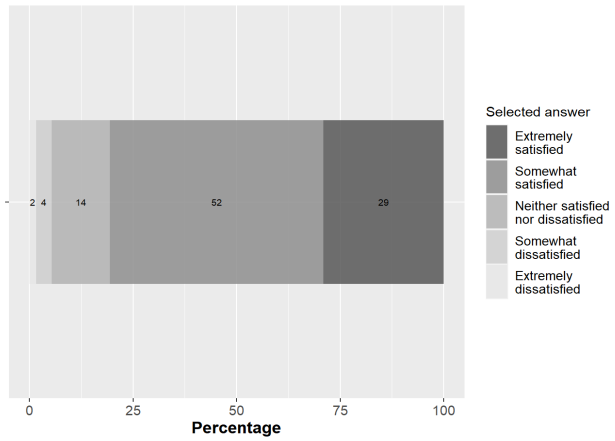

Figure 2. Overall, how satisfied or dissatisfied are you with machine translation?

The results in Figure 1 show that 62% found MT extremely easy to use, 26% Somewhat Easy to use, 11% Neither easy nor difficult, and 1% Somewhat difficult.

The results in Figure 2 show that 29% are Extremely satisfied, 52% Somewhat satisfied, 14% Neither satisfied nor dissatisfied, 4% Somewhat dissatisfied, and 2% Extremely dissatisfied. Participants seem to find that MT is a tool easy to use and overall satisfying for their purposes.

4.4 Importance of features of MT

Another question concerned the importance of certain features of MT in deciding whether or not to use it. These characteristics were: accuracy (in terms of maintaining meaning), ease of use, being free of charge, the speed of the MT service, and confidentiality and privacy. The respondents were asked to rate these characteristics on a Likert scale ranging from 1 (Not at all important) to 5 (Extremely important). The results are shown in Figure 3 (n= 186).

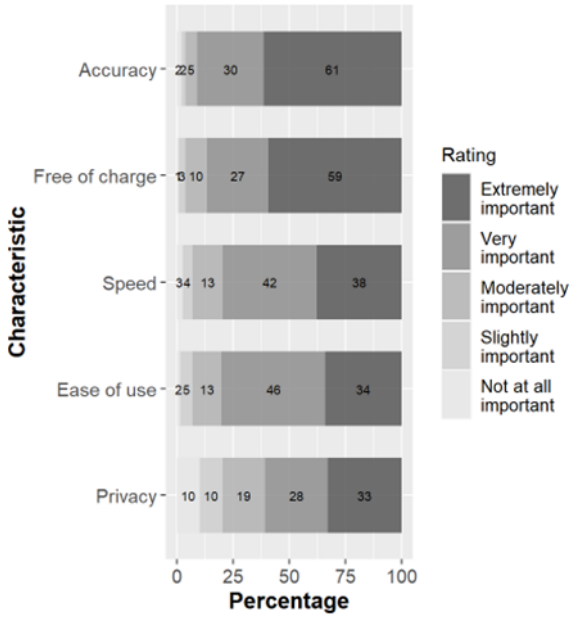

Figure 3. How important are certain features for deciding whether to use MT?

The results clearly show that respondents care greatly about all of these characteristics, as for most of these 80% or more of the respondents considered the characteristic to be either 'Very important' or 'Extremely important.' The only aspect that stands out is that of confidentiality and privacy, which is still positively skewed, but only just over half (61%) of the respondents considered it very or extremely important. This seems to suggest that privacy is not as important as the other features, even though this is one of the issues that professional translators find very relevant when using MT, since they signed confidentiality agreements. The questionnaire data does not help us understand the underlying causes, but this is a topic that warrants further exploration in the next phase of the project.

4.5 Dutch language knowledge, age, and education level

Another important factor we wanted to explore was if participants' Dutch level influenced their reception of MT. The participants had self-reported their level in the questionnaire as follows (in absolute numbers): Beginners (74), Intermediate (40), Advanced (23), Proficient (16), I do not know any Dutch (47), and Other (1).

To see if the variable *Dutch language level* affected the level of Easiness and Satisfaction that the participants had rated from 1 to 5 (from negative to positive), a Kruskal-Wallis test for non-parametric data was run on the data. The results show no statistically significant difference between Dutch Level and Easiness/ Satisfaction.

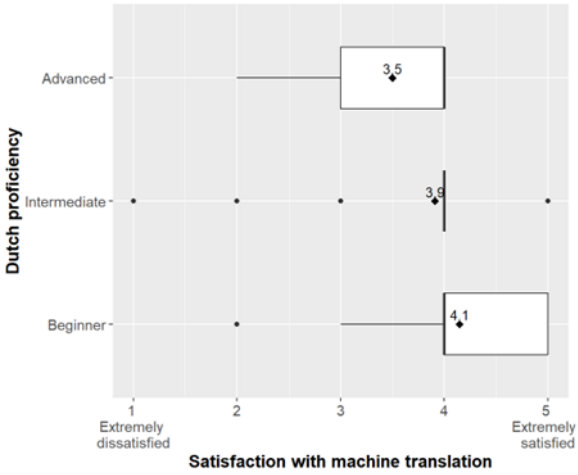

Figure 4. Dutch language level and Satisfaction

To analyze the data further, the Dutch levels were regrouped into three wider levels: Beginners 0-A2, Intermediate B1-B2, and Advanced C1+. A Kruskal-Wallis test for non-parametric data reveals that there are statistically significant differences between Dutch level and Satisfaction only ($H(2) = 9.03$, $p < .01$) and not between Dutch Level and Easiness. Post-hoc comparisons show statistically significant differences between Advanced and Beginner ($Z = 0.13$; $p = -2.85$) levels but not between Advanced and Intermediate or Beginner and Intermediate. This seems to indicate that the lower the Dutch level of the participants, the more satisfied they are with the MT proposals. Therefore, MT has a more prominent role when the Dutch language has not been mastered.

To better explore the factor Age, we regrouped the original six age ranges into three: Young adult (18–24 and 25–34), Middle age (35–44 and 45–54), and Older adult (55–64 and 65–74). A Kruskal-Wallis test for non-parametric data reveals that there are statistically significant differences between Age and Easiness only ($H(2) = 10.07$, $p < .00$), but not between Age and Satisfaction. Post-hoc comparisons show statistically significant differences between Middle age and Older adults ($Z = 3.27$; $p = 0.00$) and Older and Young adults ($Z = 2.90$; $p = 0.00$) but not between Middle-aged and Young adults. This shows that the participants in the 55 to 74 age bracket found MT more difficult to use, but they were not less satisfied.

The Education Level of the participants reveals no statistically significant differences.

In conclusion, the participants' Dutch level seems to have an effect on their level of satisfaction with MT, while their Age seems to have an effect on the ease of use of MT.

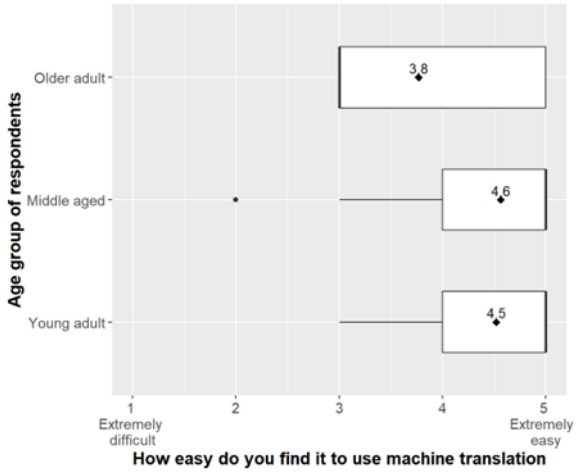

Figure 5. Age group and Easiness

4.6 Challenges when using MT in health contexts

In an open-ended question, we asked respondents, "Tell us what problems you face when using machine translation in a health-related context?" The main themes that emerged from the analysis of the answers are shown in Table 3. This question gathered 117 answers.

The most common view amongst respondents, mentioned 51 times, is related to the inaccuracy of the MT output. Respondents referred to "inaccurate," "wrong," or "bad" translations as challenging but also to the misunderstandings that can arise from these translations. As one respondent reported: "*às vezes as traduções de frases complexas (ou até mesmo termos específicos) não são exatas e isso pode gerar mal entendimento*" [sometimes translations of complex sentences (or even specific terms) are not exact and this can lead to misunderstandings].[3]

As a solution for this perceived inaccuracy, 11 of these respondents reported a preference for indirect translation or using English as a pivot language. For example, one respondent commented: "*La traduzione dall'olandese non è accurata. Uso la traduzione dall'olandese all'inglese*" [The translation from Dutch is not accurate. I use the translation from Dutch to English].

The second most recurrent theme, expressed 17 times, was related to comprehensibility. Respondents who reported this as a challenge referred to unclear translations or nonsensical translations, as these responses illustrate:

"*certe volte la traduzione non e' chiara*" [sometimes the translation is not clear]

"*A veces no tiene sentido lo que plantea la traducción automática*" [Sometimes what MT proposes does not make sense]

Themes	Mentions
Inaccurate translations	51
Comprehensibility issues	17
Context-related issues	12
Lack of trust in MT	10
Technical issues	10
Terminology difficult to translate	5
Slow and time-consuming	4

Table 3. Most common themes (above two mentions).

Other respondents alluded to another type of comprehension challenge. What these respondents found challenging was understanding the medical language and terminology, not necessarily the MT output. For example, one respondent wrote: "*Tampoco conozco la terminología médica en español. Me baso en imagenes*" [I also do not know the medical terminology in Spanish. I rely on images]. And another commented: "Technical vocabulary is sometimes difficult to understand."

Context-related issues was the third most recurrent theme (12 mentions). Respondents commented that one of the challenges they face when using MT in health situations is that the translations appear correct but do not apply to the health context. Other respondents, when referring to context-related challenges, observed that health information could be culture-specific. One respondent gave the example of symptoms and pain to explain that it cannot be translated literally: "Certain terms to describe a symptom are very culture-specific and/or don't translate literally. E.g.: the way different types of pain are described in different languages." And another gave the example of definitions: "*Credo che uno dei problemi più comuni sia che molte definizioni cambino molto da cultura a cultura*" [I believe one of the most common problems is that many definitions change considerably from culture to culture].

The fourth most recurrent theme that emerged from the analysis is related to not trusting the MT output (10 mentions). When discussing trust, some respondents expressed concerns about trusting MT to translate specifically health information, while others expressed a more generalized lack of trust for,

[3] Respondents' answers are quoted verbatim, including typos. When the answer is not in English, our own translation is provided in squared brackets.

in the words of one of the respondents, “translation apps”.

Another noteworthy perspective was also shared by some respondents. For them, the problem relies on not knowing if the translation is accurate. Commenting on this, one of the respondents wrote: "I sometimes prepare before going [to a health-related situation] by checking specific phrases, but of course I can never be sure if the phrase the translator gives me is the correct one or is in common usage (...)." Another respondent commented along the same lines: “*Nunca estoy segura al 100% de si la traducción que Google me está dando es correcta. (...) y siempre suelo quedar satisfecha con las traducciones, pero sin tener completa certeza de si un humano que entienda ambos idiomas lo traduciría igual que Google.*” [I am never 100% sure if Google’s translation is correct (...) and I am always pleased with the translations, but I am never completely sure if a human who understands both languages would translate it like Google.] As evident from these elucidative answers, the lack of trust in the MT output is associated with the lack of knowledge of the source language and the user's inability to check the translation accuracy for themselves. This lack of trust can lead to hesitation or reluctance in using the MT output, as explained by another respondent: “(...) so sometimes it doesn't help or I don't feel very confident”.

Technical issues were also mentioned by respondents (10 mentions). These were related to the difficulty of translating scanned files, handwritten text or PDFs, as well as using the camera option or the browser extension to translate websites.

A smaller number of respondents referred to the difficulty of translating technical terminology (5 mentions), while others commented on how slow and time-consuming it is to use MT in a health context (4 mentions).

5 Conclusion

The responses from the participants shed some light on the use of MT by migrant communities in the Netherlands. First and foremost, the majority of migrants use MT in several health contexts to access and understand health information presented to them in Dutch, but also to communicate with health professionals. This usage is different depending on the situation. When the situation is asynchronous, for example reading a letter from the Health Ministry or the family doctor, they use the phone’s camera function. When the communicative situation is synchronous, they use MT more in a face-to-face appointment than in emergency situations, opting to type in the app or to prepare beforehand using MT.

Participants find MT easy to use and are satisfied overall, with only a small percentage finding it difficult or extremely dissatisfying. This seems logical. MT is used then as a tool to communicate when there is a lack of knowledge of the source language and not as a tool to improve the speed of communication. They also care greatly about MT being accurate, free of charge, fast, easy to use, and to a lesser extent about privacy which is somewhat surprising but in line with previous research (see Vieira et al., 2022b).

The findings suggest then that, on the one hand, MT provided access to health information that perhaps otherwise would not have been possible. On the other hand, some users are facing specific challenges of various kinds. For example, they reported challenges such as perceived inaccuracy or lack of trust in MT output in healthcare settings. Our findings also suggest that some migrants face comprehension difficulties associated with unclear translations but also understanding MT-mediated health texts. Based on the users’ statements, we argue that there is a need for a more nuanced understanding of migrants’ needs regarding translated expert-to-non-expert communication that goes beyond a more literal translation of medical language and terminology, involving interlingual but importantly also intralingual translation. The second part of the project will certainly bring more qualitative data that will expand the information presented here.

We are also aware of the limitations of this study, as we mentioned before, the number of participants (majority of Portuguese, Italian and Spanish) are only a sample of all the migrant communities in the Netherlands. This questionnaire helped us identify several topics to explore further in the follow-up interviews and we will address the issues identified and answer these new questions in our future work.

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