

Automatic translation in public services: A survey of the Finnish public sector

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Abstract

This paper presents findings from a survey on the use of automatic translation in Finnish public services, conducted in autumn 2025. Adapted from a similar survey conducted at the University of Bristol, the present survey focused on users whose main professional activity is not translation or interpreting. The study analyzed those professionals' habits around automatic translation use, the purposes and the contexts involved, and the respondents' satisfaction and confidence in using automatic translation. Approximately half of the respondents reported using automatic translation at least once a week and across a range of scenarios, including public-facing situations. While the survey sample is not representative of the Finnish public sector as a whole, the data suggests that automatic translation may play a role in the everyday work of at least some public service employees.

1. Introduction

Public administration worldwide faces an increasingly complex linguistic landscape. As populations become more diverse and international interactions more frequent, public sector workers regularly encounter situations in which they must communicate across language barriers. Traditionally, such situations were addressed through professional translation and interpreting services or, in some cases, perhaps not addressed at all. However, the availability of automatic translation applications, from “traditional” online tools such as Google Translate

to newer generative AI tools, is fundamentally changing how language barriers are navigated in practice (see e.g. Savoldi et al., 2025). International migrants increasingly use these tools as everyday aids for accessing information and navigating public services (see e.g. Vieira, 2024a). However, automatic translation is not just a tool for the individual user: the potential of this technology to enable multilingual provision of public information and services has also raised increased interest on the side of public authorities.

While evidence of automatic translation use in the public sector has been observed in some studies (see Section 2.1), systematic empirical data has been scarce. This study addresses this gap by examining the extent and nature of automatic translation use within Finnish public administration, with the focus specifically on translation performed by employees whose primary duties do not include professional translation or interpreting work.

We developed a survey based on a template from a similar 2024 study conducted at the University of Bristol in the UK, which examined automatic translation use in British public services (Vieira, 2024b, 2025). The English language questionnaire was slightly modified to reflect the Finnish public administration context, professionally translated into the national languages of Finnish and Swedish, and circulated in these three languages to public sector organizations (see Section 3). The survey was conducted in collaboration between University of Eastern Finland, Tampere University and SKY Finnish Language Service Companies Association.

Terminology in this area currently appears to be in flux, with different sources using terms like “machine translation”, “AI translation” or “automatic translation”. In this paper, we follow the usage in Vieira’s (2024b, 2025) questionnaire,

meaning that “automatic translation” is used as a broad term covering the variety of tools respondents reported using for translation purposes. This inclusive approach was chosen because the study aimed to capture the full range of technologies public sector workers might use to overcome language barriers in practice, regardless of the specific type of application. In the discussion that follows, automatic translation is used as the general term referring to any tool used for generating translations.

The remainder of this paper is organized as follows. In Section 2, we discuss related research on the use of automatic translation by professionals other than translators, and the use of automatic translation in public services specifically. In Section 3, we describe the collection and analysis of the survey data. In Section 4, we present an overview of the survey respondents followed by the key findings related to the patterns of using automatic translation as well as user satisfaction and confidence. Section 5 discusses comparisons to prior work and implications of the findings. Finally, Section 6 concludes the paper with discussion of ongoing and future work.

2. Related work

In this section, we provide an overview of prior research on the use of automatic translation in the public service context and contextualize the study within the broader discussion of automatic translation in workplace scenarios.

2.1 Automatic translation in public services

In everyday scenarios, automatic translation is increasingly ubiquitous, and various scholars have argued that the provision of automatically translated information and communication by public authorities could promote linguistic accessibility and inclusion for speakers of non-dominant languages in areas such as education, healthcare and democratic processes (see e.g. Láncoş, 2021; Piekkari et al., 2021; Torres-Hostench, 2022; Cabrera, 2024). To date, automatic translation does not appear to have a significant role in public authorities’ language and translation policies, and earlier scholarship has often deemed its use in public services unfeasible (Cabrera, 2024; Vieira, 2024a).

Concrete examples of automatic translation use by public authorities have been observed particu-

larly in the realms of public health (e.g. Haddow et al., 2021; Pym et al., 2022), immigration (Giustini, 2024), and in governmental or other public service websites (Lång, 2025; Miyata, 2025; Vieira and Al Sharou, 2025). The examples mentioned in these sources commonly involve the use of free online translation tools, such as Google Translate. Some recent projects have also aimed to develop tools specifically intended for migration contexts. For example, Macken et al. (2025) describe a platform intended for staff in Belgian asylum reception centers to send messages to the residents in 14 target languages. Soto et al. (2025) describe a project developing translation models between Basque and Darija (Moroccan Arabic) to facilitate communication between migrants and non-governmental organizations working with migrants in the Basque country. For a discussion of projects prior to 2020, see Nurminen and Koponen (2020).

Some researchers have aimed to chart the use of automatic translation in public services through literature reviews. O’Mara and Carey (2019) conducted a systematic literature review of academic publications, documents published by Australian governmental institutions, and non-profits engaged in translation-related activities. In this review, studies were found to be mainly focused on educational settings, healthcare, and governmental websites (O’Mara and Carey, 2019).

Vieira et al. (2020) conducted a review of literature in the medical and legal fields to analyze reported use scenarios as well as perceptions, evaluations, and implications of automatic translation in these scenarios. Key findings from their review indicate that, particularly in healthcare, the use of automatic translation often appeared to be a last resort in situations where the need for translation or interpreting was urgent and no alternatives were available. In the legal field, Vieira et al. (2020) note that awareness of the implications of automatic translation appeared lower than in healthcare, although it can impact decisions made in legal proceedings.

Pięta and Valdez (2024) conducted a structured literature review of research on the use of translation technologies in migration contexts. Their review found that the use of automatic translation in migrant-host community interactions has been examined primarily in healthcare settings, with both migrants and institutional agents initiating automatic translation use to overcome language barriers, and that users’ perceptions of automatic translation remain mixed.

Do Carmo (2025) conducted a review on the use of AI for multilingual communication in public services, with a particular focus on the UK National Health Services, and found that automatic translation tools are already in widespread use across both clinical and non-clinical NHS contexts, typically as an ad hoc resource, and that a large majority lack policies, risk assessments, or clear lines of accountability governing this use.

A general consensus arising from these reviews is that published evidence of automatic translation use is sparse and often anecdotal – but as do Carmo (2025, p. 4) notes, “sufficient to indicate that these tools are used as an ad-hoc resource” – and that further cross-disciplinary research is needed to better understand the ways in which automatic translation is used in the public sector and the extent of its use.

A survey by Vieira (2024b) charted the use of automatic translation among public servants in the UK, covering the prevalence of use, the tools employed, contexts of use, and the respondents’ perceptions of the benefits, limitations, and risks associated with automatic translation. The survey received 829 respondents representing the fields of health and social care, legal services, police, and emergency services (Vieira, 2024b). Although the use of automatic translators did not appear very common in Vieira’s study, with around 60% using the tools less than once a month, the majority of respondents (78.3%) reported using automatic translation for public-facing communications. The most common purposes for using automatic translation were communication with someone in the same physical space (56.3%) or understanding information without replying back (45.0%) (Vieira, 2024b). The respondents reported high levels of satisfaction with automatic translation – over 80% answered that the tools worked well for their purposes and allowed them to reach their objectives – as well as high confidence, with 89.6% stating they were at least somewhat confident in their ability to cross language barriers with automatic translation.

The use of automatic translation by a public service provider for the purpose of disseminating information and communicating with a linguistically diverse population also entails potential risks as well as ethical and legal implications, which have been highlighted by various authors. Particularly in high-stakes settings like medical or legal scenarios, misunderstandings due to flawed translations can have severe consequences to the well-being and rights of people, and fully automatic

translation should not be used for critical information (see e.g., Koponen and Nurminen, 2024; Miyata, 2025). Imposing the use of technological solutions instead of human translation and interpreting can also disadvantage vulnerable groups like women and the elderly due to lack of access to devices or lack of digital skills (cf. Giustini, 2025). Providing potentially low-quality automatic translations of official information in some language may also demonstrate “a lack of care and attention” by public institutions, and exacerbate discrimination of specific linguistic and ethnic groups (Vieira and Al Sharou, 2025, p. 417). Tasa-Fuster (2024, p. 161–162), for example, argues that automatic translation should not be used for any official texts “whether informative, political, administrative” without supervision by human translators.

In Finland, like elsewhere, linguistic barriers have been identified as a key challenge for public services, and AI tools, including automatic translation, have been proposed as a potential solution (Drobotowicz et al., 2023; Truong et al., 2024). Traces of automatic translation in public services can be seen, for example, on websites: a study conducted in April 2025 found that, in a sample of 36 Finnish municipal websites, 18 had integrated automatic translation functions (Lång, 2025). A mobile application with automatic translation functions was also released in January 2026 to support migrants’ access to integration services in the Turku region (VINCE, 2026).

To the best of our knowledge, no previous study has investigated the use of automatic translation in Finnish public services, and much of the information regarding this use remains anecdotal. The present study aims to fill this gap and start to build a more systematic picture of the current situation through a survey charting the use of the technology by personnel in various areas of public services.

2.2 Automatic translation in other workplaces

Besides public services, other fields outside of professional translation have turned to automatic translation to allow or optimize communication across languages. When used for such purposes by someone in their professional capacity that is not specifically translating or interpreting, such use can be called “paraprofessional” use of automatic translation, to adapt Koskinen’s (2025, p. 37) definition of paraprofessional translation. A small but growing body of research has focused on paraprofessional use of automatic translation in

fields ranging from legal to academic research (for a recent overview, see Nurminen, 2025).

One area of work that, similarly to public services, employs automatic translation for public-facing communication is customer support. Large multinational corporations began to implement automatic translation systems as far back as 2012 (Burgett et al., 2012), and by today, commercial tools are available that allow support staff to communicate with customers with whom they do not share a language in chats and emails (Goncalves et al., 2022).

Automatic translation is also used in workplace processes that do not necessarily involve direct communication with the public. For example, in their background data gathering processes, journalists might use automatic translation to access information in other languages (Nurminen and Havumetsä, 2026). Researchers in academia sometimes use automatic translation to help them read literature in languages they are not fully proficient in (Ehrensberger-Dow et al., 2023) or to draft abstracts in English (Toledo-Báez and Marín Navarro, 2025). Patent and legal professionals rely on automatic translation when reviewing large amounts of background material to identify documents that are most relevant to the case at hand (Nurminen, 2020, and Vieira et al., 2020, respectively). We can assume that this list of workplaces employing automatic translation is not a comprehensive one and that there are others that have not been researched yet. We can also assume that the list will grow, with new fields integrating automatic translation into their processes to enhance cross-lingual communication.

3. Data and methods

The data for this study was collected through an online survey that was adapted from a questionnaire developed at the University of Bristol for a study on the use of automatic translation in UK public service contexts (Vieira, 2024b). The core structure and content of the Bristol survey was preserved, with some minor modifications. In the background questions, industry classifications and educational degrees were adapted to reflect the Finnish context. The list of options in the question asking for specific tools used was also changed slightly to omit some tools that appeared likely not to be used in Finland, and to include one tool (Tilde) which was known to be in use in some public sector organizations. Two general questions about the use of automatic

translation outside of work were removed to focus the survey on professional use. On the other hand, a new open-ended question about situations in which automatic translation would have been useful but was unavailable was added to obtain more information about potential use cases. The English questionnaire is included in Appendix B.

The questionnaire was translated from English into the national languages, Finnish and Swedish, by professional translators with the aim of keeping the different versions as consistent as possible. The survey was then administered in all three languages using the Webropol online survey platform from 15 September to 31 October 2025. Responses were collected anonymously. In order to protect respondent privacy, background information was kept to a minimum, and no data that could identify individuals was requested.

The study was conducted in accordance with the ethical guidelines for research with human participants issued by the Finnish National Board on Research Integrity (TENK, 2019). As the survey was voluntary, anonymous, and did not collect sensitive personal data or any information that could be used to identify individual respondents, the research does not meet the criteria that would require an advance ethical review statement from a human sciences ethics committee under the TENK guidelines. All ethical principles concerning research with human participants were nevertheless followed throughout the study.

We employed a variety of methods for recruiting respondents for the survey via snowball sampling. First, we distributed an invitation leaflet at a national public services conference in September 2025. Second, our network of contacts in the Finnish public services sector and the collaborating industry association assisted with more targeted advertising through emails to personal contacts which included an invitation to participate and a request to distribute the invitation throughout their own networks. Third, we employed publicly available email addresses for various public service organizations to send emails with distribution requests.

These methods of recruitment, which often relied on individual people's or organizations' infrastructures and willingness to distribute such invitations to participate in research, affected the eventual data set gathered. For example, there are few respondents from health services and a large number from supervisory services such as the police. The survey is therefore not a representative

sample of Finnish public service workers, nor are all of the results directly comparable to those in Vieira (2024b).

Open-ended responses were analyzed collaboratively by the research team. The first author holds C2-level proficiency in English according to the Common European Framework of reference but does not speak Finnish or Swedish; the second author is a native speaker of Finnish with C2-level English and C1-level Swedish; the third author is a native speaker of English with C2-level Finnish but no competence in Swedish. Given this linguistic diversity of the research team, automatic translation was employed to enable all three authors to engage with the Finnish and Swedish open-ended responses and participate in the analysis. DeepL and Google Translate were used for this purpose. Since the open-ended responses were collected anonymously and were verified to contain no identifying, personal, or sensitive information, the use of publicly available automatic translation tools was considered compatible with the study's data handling protocol. To ensure the quality of the translations, the second author provided the necessary reviews and post-editing. Findings from the open-ended responses were then discussed collectively.

4. Results

An overview of the survey respondent demographics is provided in subsection 4.1. For the purposes of this paper, we then focus on two key themes arising from the responses: firstly, the applications used by respondents and their ways of using them (subsection 4.2), and secondly, satisfaction and confidence in the tools (subsection 4.3). A discussion of the full range of questions related to the use of automatic translation in public service work is outside of the scope of this paper due to space constraints. Preliminary findings from the full survey have been previously published in a report aimed at Finnish professional audiences (Koponen et al., 2025).

4.1 Respondent demographics

The survey received a total of 461 responses. A clear majority of respondents ($n = 432$) used the Finnish version of the survey, with 25 responses in Swedish and 4 in English. Following a preliminary review of the data, 12 respondents who identified their job title as translator were excluded, as the study specifically targeted

employees whose main duty was not translation related. This left a total of 449 respondents.

The vast majority, 92.9%, reported speaking Finnish as their first language, while 6.9% reported Swedish as their first language. These proportions roughly reflect national statistics: at the end of 2025, official records indicated that 84.5% of residents reported Finnish as their first language, and 5.0% Swedish, while 11.4% reported a language other than one of the domestic languages (Statistics Finland, 2026). Individual mentions of other first languages were also reported. All but one respondent reported that they speak at least one other language, the three most common being English (97.8% of respondents), Swedish (76.6%) and German (42.2%). These findings are expected since knowledge of both national languages as well as English is a common requirement in the Finnish public sector. Most respondents hold either a Master's (53%) or Bachelor's (32%) degree.

The public service sectors in which the respondents work are shown in Table 1. The largest sector represented in the survey was regulatory authorities (42.1%), followed by education services (13.6%). The remaining sectors each accounted for less than 10% of the sample, as can be seen in Table 1.

Sector	n	%
Regulatory authorities	189	42.1%
Education services	61	13.6%
Culture and leisure services	37	8.2%
Economic affairs, employment services	27	6.0%
Social and health services	18	4.0%
Housing and environment services	14	3.1%
Integration services	12	2.7%
Other	91	20.3%

Table 1. Respondents by sector

Write-in answers under the option "Other" include general administrative services, ministries, communications, and IT services. In the survey, the healthcare and social services sectors were included as separate options. However, an initial analysis of the data showed that three respondents had entered "health and social services" as an open-ended answer under the option "Other", suggesting that, at least for some respondents, this division was not relevant. In Table 1, these categories were combined, and the three open-ended responses were added. In an open-ended question about the respondent's specific job title, the most prominent groups were police officers ($n = 88$, 19.6%) and inspectors ($n = 47$, 10.5%), with

communications professionals also well represented across sectors (n = 35, 7.8%).

At the start of the survey, respondents were asked whether they had encountered language barriers in their work and whether they had used automatic translation in such situations. A “language barrier” was defined as a situation in which insufficient knowledge of a foreign language caused difficulties. Of the 449 respondents, 88.2% reported encountering language barriers in their work and 82.0% also stated they had used automatic translation to overcome this issue.

The 81 respondents that reported that they did not use automatic translation were asked about reasons for not using it, and the survey for these respondents ended after that question. The most common reason mentioned by the respondents was that they had not encountered a situation where automatic translation was necessary (n = 31). In the write-in answers, some specified that their own language skills were sufficient, that another colleague would handle such situations or that they had access to an interpreter when needed. Other respondents indicated that they did not trust the tools to be accurate enough (n = 13), that using automatic translation had not occurred to them (n = 10), that their employer had guidelines forbidding the use of such tools (n = 5), that they did not have access to suitable tools (n = 5) or using them was not possible in the situation (n = 6). The remaining respondents (n = 11) did not specify a reason.

The findings presented in the following sections are based on the 368 respondents who reported using automatic translation in their work. Among these respondents, use was relatively frequent: 51% indicated they use automatic translation at least once a week.

4.2 Translation tools and patterns of use

The breakdown of respondents’ selection of specific tools is shown in Table 2, listed in order from most common to least common. The translation applications reported by respondents were predominantly publicly available, free-of-charge tools. Google Translate was by far the most common single application, used by 82.3% of respondents. The second most widely used tool category was generative AI tools, reported by 52.4% of respondents. Due to the wording of the question, with ChatGPT as an example, specific details of which chatbot the respondents use were not clear. Copilot was mentioned by 11 respondents under

the category “Other”, but it is possible that other tools were used also. The category “Other” included some mentions of proprietary applications provided by the employer, including MOT or sanakirja.fi and the AURA tool used by certain Finnish governmental organizations. Isolated mentions were also made of the European Commission’s eTranslation (n = 2) and Europol’s translation system (n = 3). Some respondents (n = 11) also referred to a tool or device provided by the employer without specifying the name.

Applications	n	%
Google Translate	303	82.3%
A chatbot like ChatGPT	193	52.4%
DeepL	80	21.7%
Other	64	17.4%
Default translator in a text editor	60	16.3%
Default translator in web browser	44	12.0%
Bing or Microsoft Translator	28	7.6%
Default translator on smartphone	25	6.8%
Default translator in a meeting tool	21	5.7%
Default translator on social media	19	5.2%
MOT/sanakirja.fi	16	4.3%
AURA	8	2.2%
Apple's Translate app	7	1.9%
Tilde's automatic translator	6	1.6%

Table 2. Automatic translation applications used by respondents

The most common way of accessing automatic translation was using an online tool through a browser (81.6%), followed by the use of chatbots (48.6%), or an application downloaded from an app store (21.7%). A tool provided by the employer was used by 21.5% of respondents, and 6.8% used default translators integrated into their device.

The use of these tools in public-facing scenarios was common: 61.7% of respondents reported using automatic translation when communicating with, or disseminating information for, the general public. The most frequently reported purpose for using automatic translation was written communication via chat, email, or similar applications, selected by 60.2% of respondents. Reading and understanding foreign-language texts was the second most common purpose (56.4%), followed by publishing or sharing information (41.7%).

For the most part, respondents did not rely solely on automatic translation: 67.9% stated that they used other communication aids alongside automatic translators. We then asked more specifically about these other methods or aids. The re-

sults are shown in Figure 1. The most commonly selected additional resource was the respondent's own knowledge of the languages (76.9%). More than a third (37.8%) also indicated they asked another person with knowledge of the relevant language for help. Commonly used aids included web searches (54.3%) and dictionaries (31.0%).

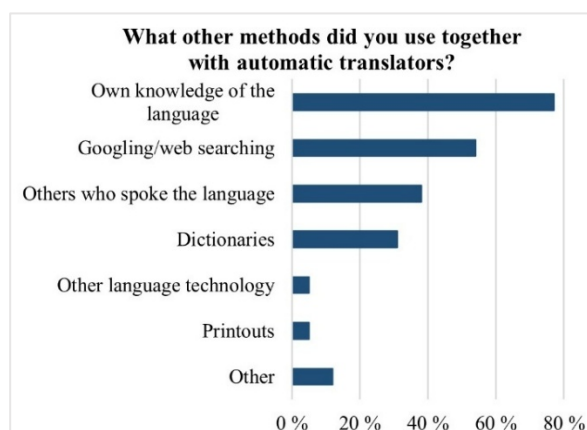


Figure 1. Communication aids respondents used alongside automatic translation

When asked to list language pairs for which they use automatic translation, the respondents mentioned a total of 77 different language pairs. The most frequently reported language pairs used in automatic translation were Finnish–English (46.5%), English–Finnish (22.3%), Finnish–Swedish (34.0%) and Swedish–Finnish (23.4%). Considering the most frequently reported native and non-native languages, this indicates that respondents prefer to use automatic translation between languages they know. This is also supported by the previously mentioned finding that 76.9% of respondents reported drawing on their own basic knowledge of the foreign language alongside automatic translation.

After the combinations involving Finnish, Swedish and English, the most common language pairs mentioned were Finnish–Russian (14.1%), Russian–Finnish (7.3%), Finnish–Ukrainian (9.0%), Ukrainian–Finnish (4.1%), Finnish–Arabic (7.1%) and Arabic–Finnish (6.3%). Although some respondents reported knowledge of these languages (Russian: 5 first language speakers, 1

foreign language; Ukrainian: 1 first language, 1 foreign language; Arabic: 1 first language, 7 foreign language), the number of respondents reporting use of automatic translation in these language pairs is larger. This indicates that automatic translation in these language pairs is mostly needed when the respondent does not understand Russian, Ukrainian or Arabic. Most languages on the list, such as Somali, Farsi, and Lithuanian, received less than ten mentions among the respondents. More detailed lists of language pairs are given in Appendix A.

4.3 Satisfaction and confidence

To assess their satisfaction with the use of automatic translation, the respondents were asked to rate their agreement with a series of statements based on their typical experience at work. Their ratings are shown in Figures 2 to 5. Respondents' overall evaluation of automatic translation was highly positive, with 88.0% agreeing somewhat or strongly that automatic translation had helped them achieve their objective (Figure 2), and 75.0% agreeing that it was well suited to their purposes (Figure 3). A very large majority, 93.5%, indicated they would use automatic translation again (Figure 4).

A more nuanced picture emerged from a question involving respondents' views on the risks associated with using automatic translation (Figure 5). They were asked to mark their agreement with the statement, "Automatic translators involve more risks than benefits." While the majority of the respondents disagreed with this statement either strongly (15.8%) or somewhat (38.3%), more than a third (34.5%) selected the middle of the scale. Only 11.4% agreed somewhat or strongly with the statement.

Figure 6 shows the respondents' rating of their confidence in their ability to overcome language barriers with automatic translation. Respondents report high confidence, with 23.9% stating they were very confident. The lowest rating 1 (Not at all confident) was selected by only 0.8% of respondents. Overall, 94.8% of the respondents indicated that they are at least somewhat confident.

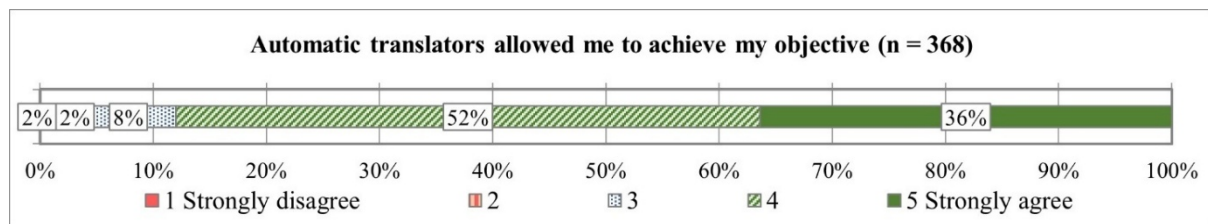


Figure 2. Respondents' satisfaction with automatic translators in achieving their objectives.

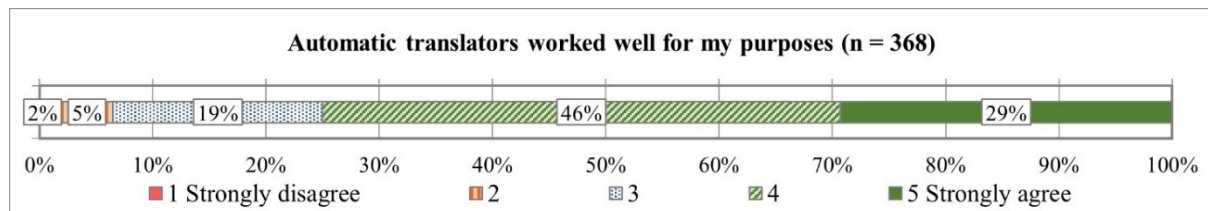


Figure 3. Respondents' satisfaction with automatic translators working for their purposes.

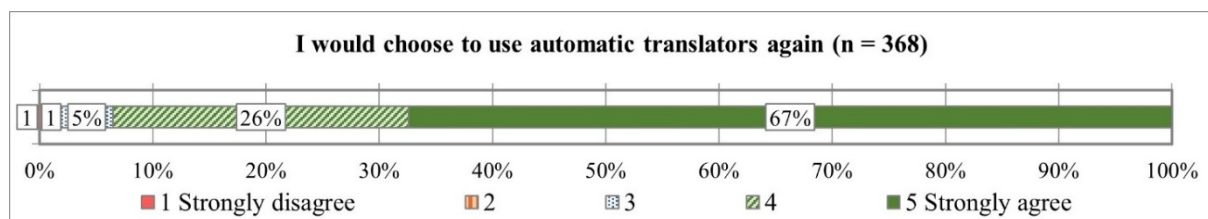


Figure 4. Respondents' intention to use automatic translators again.

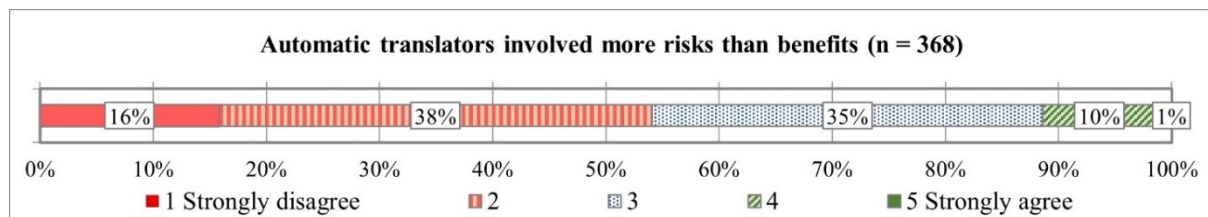


Figure 5. Respondents' assessment of the risks vs benefits of automatic translators.

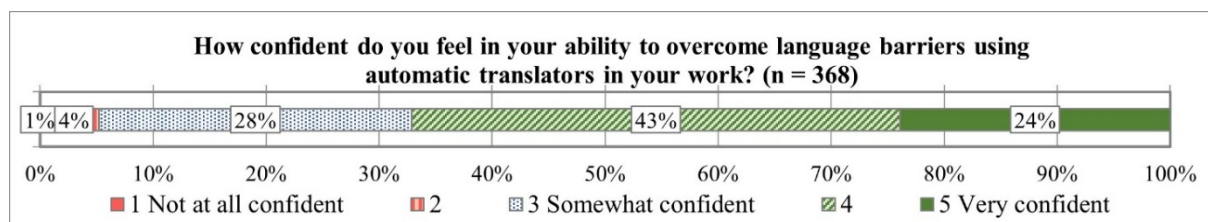


Figure 6. Respondents' confidence in using automatic translation to overcome language barriers.

In a question regarding how the decision to use automatic translation was made, the vast majority of respondents stated that the decision was made by the respondents themselves (82.9%), while 7.1% stated that the use of an automatic translator was initiated by the other person involved in the communication. Only 6.2% reported that their employer recommends the use of automatic tools. Respondents were also asked whether their employer had recommended practices for dealing with lan-

guage barriers more broadly, and 37.4% said such practices existed, 29.5% said they did not, and 33.3% were unsure. In a question regarding training, 41.9% of respondents reported that automatic translation had been mentioned in employer-provided training, while 25.5% reported that it had not been mentioned and 27.2% that they were not sure or did not remember. These findings suggest that while automatic translation use is widespread among the respondents, it is largely a matter of in-

dividual initiative rather than something guided or supported by institutional policy.

5. Discussion

In comparison with the previous UK study by Vieira (2024b), certain differences appear. One notable observation is the difference in the sectors represented by the respondents (see Section 4.1). While in the UK survey, healthcare and social care workers (particularly NHS staff) made up a substantial proportion of the respondents (81.2%), only 4% of Finnish respondents were from that sector. In contrast, the largest sector represented in the Finnish sample was regulatory authorities (42.3%). This difference in the dominant sectors should be taken into account when comparing findings between the two surveys, as the sectoral context shapes the types of language barriers encountered and the ways in which automatic translation is used.

Another observation relates to the tools used. In our study, nearly half of the respondents (49%) reported using LLM-based generative AI tools for translation in their work. This is a considerably higher proportion than that observed in Vieira's survey (2024b), in which only 10% of respondents said they had used a chatbot such as ChatGPT for translation in their public services work. This difference reflects ongoing shifts in the technological landscape. At the time the data for this study was gathered, a significant move toward using generative AI tools for translation was well underway. Our study indicates that LLM-based tools have established themselves as a common part of the automatic translation in the Finnish public administration, and the comparison with Vieira (2024b) implies that this reflects a recent change in tool use. At the same time, however, Google Translate was still the most popular automatic translation tool in both studies.

The predominant use of free online generic tools among the respondents raises some concern. Since the most commonly used tool was Google Translate (82.3%) and the majority of respondents reported using automatic translators through their browsers (81.6%), it appears that most use happens through general tools that are not specifically designed for institutional use. Only 21.5% of respondents reported using employee-provided applications. This has implications for data protection, safety, and confidentiality issues when sensitive information is involved.

The pattern of scenarios in which automatic translation is used also differs from the UK survey by Vieira (2024b), in which communicating out loud in the same physical space was the most frequently reported use context (56.3%). In the Finnish data, face-to-face communication was reported by only a quarter of respondents, while the most frequent cases were written communication through email or chat and reading information without communication. This difference might reflect the difference in the sectoral composition of the two samples; for example, the UK survey had a larger proportion of healthcare workers who need to engage in face-to-face communication more frequently. However, a closer analysis of both studies would be needed for a definitive comparison. On the other hand, in the Finnish dataset, respondents appear to be more commonly engaged in situations where they use automatic translation between languages they know at least to some extent (see Section 4.2). In these cases, automatic translation is not used for enabling communication but more as a support tool within already multilingual work tasks or contexts.

The finding that automatic translation was commonly used between the two national languages, Finnish and Swedish, may appear surprising at first. However, it can be seen to reflect the sociolinguistic reality of Finland. Both Finnish and Swedish are recognized as national languages with equal status, and on the national level, citizens are entitled to use either language when dealing with public authorities. However, on the local level, municipalities are defined as either monolingual or bilingual (Latomaa and Nuolijärvi, 2002). The vast majority of municipalities are monolingual in Finnish, the only monolingual Swedish municipalities are on the autonomous region of the Åland islands, and bilingual municipalities are concentrated on the southern and western coasts (see Frick et al., 2023, for more detailed discussion). All Finnish citizens are required to study both national languages for at least three years in comprehensive school, and civil service jobs generally require knowledge of both Finnish and Swedish (e.g. Lindström, 2012). However, the lowest level for civil services ("satisfactory") corresponds to the CEFR level B1 (Finnish National Agency for Education, 2026a,b). As noted by Frick et al. (2023), the Finnish-speaking majority may have a higher proficiency in English than Swedish. Our survey findings appear to reflect a situation in which many public servants may not be fully confident in their proficiency in the other national lan-

guage, and therefore turn to automatic translation for support.

As noted in Section 4.3, a considerable proportion of the respondents (41.9%) indicated that automatic translation had been mentioned in workplace training, which is much higher compared to the 11.2% in Vieira's (2024b) study. However, the interpretation of this finding is not straightforward. The survey question asked whether automatic translation had been "mentioned" in training, and it is unclear whether respondents understood this as referring to dedicated training on the use of automatic translation or simply a passing reference within broader training on, for example, AI or digitalization. The survey did not collect further information on the content, depth, or format of any such training, so it is not possible to determine from this figure alone how comprehensive the trainings were. Therefore, it is difficult to draw concrete conclusions about how well-trained the respondents are in navigating the limitations and risks associated with using automatic translation in their work. Still, the finding indicates that automatic translation is at least talked about in the public sector training.

Respondents' awareness of the risks involved with automatic translation use emerged from answers to an open-ended question regarding situations in which the use of automatic translation was not possible. A detailed discussion of these answers is outside of the scope of this paper, but a preliminary analysis shows respondents cited concerns related to data security and quality as some of the central factors limiting the use of automatic translation. Some respondents also explicitly stated that they would prefer to use a secure solution approved by the employer, but that such a solution was not available to them.

Awareness of the limitations of automatic translators in the public service context is illustrated by the following answer by one of the respondents in a final question where respondents were invited to leave any other comments they may have regarding the use of automatic translation:

They can be useful in informal situations, but anything texts [sic] that goes out in the world on behalf of my organization should rely on the talents of trained professionals and not AI. The risk of error is too great. The law requires us to inform people accurately. (English original)

Other answers in the open-ended questions, however, also indicated uncertainty regarding the appropriate use of automatic translation. This in-

dicates a need for clear institutional policies and guidelines within public sector organizations. Such policies should incorporate risk assessment guidance for the varying types of contexts and scenarios where automatic translation may be used (see Koponen and Nurminen, 2024). Like Vieira (2024b) and do Carmo (2025), our findings also highlight that public sector employees have a need for education related to automatic translation along the lines of "MT literacy" discussed by Bowker (2025).

6. Conclusion and future work

This study explored the use of automatic translation solutions in the Finnish public sector through an online survey. Among the respondents to the survey, the use of these tools is indeed common. For the purposes of this paper, we focused on a discussion of use patterns as well as user satisfaction and confidence.

Due to the snowball distribution method of the questionnaire and the unbalanced nature of the dataset, no definitive conclusions can be made regarding the frequency or patterns of use in specific public service sectors. As a whole, however, the findings may be indicative of patterns throughout the Finnish public sector, but further study is required. As noted in Section 5, some of the conclusions are limited because the questionnaire format does not allow for a deeper level of detail. At the time of writing, a more thorough analysis of the open-ended questions is under way to build a clearer and more nuanced understanding of the use scenarios described by the respondents, the potential factors limiting the use of automatic translation, and user awareness of the implications of that use.

The main findings indicate that a large majority of respondents use automatic translation to address language barriers, predominantly on their own initiative and without encouragement from their employers. Free online tools appear to be the most frequently employed. Google Translate is the most commonly used tool, followed by LLM-based applications. Most respondents report using automatic translation between languages they already know to some extent and drawing on their own knowledge of the languages while evaluating the outputs. Automatic translation is also widely used by respondents in public-facing contexts, such as communicating with or preparing information for the public. While the majority consider automatic translation a useful tool for carrying out

their work, the responses also show an awareness of the possible risks. This is an area worth exploring in future research.

Other questions for future research concern the effect of language pairs on automatic translation use. First, it is plausible that the language pair affects the choice between established translation applications such as Google Translate and tools based on large language models. For higher-resource language pairs such as Finnish–English, users may have more tool options, whereas for lower-resource languages, for example, Finnish–Sorani, Google Translate might be the only readily available option. Second, the overall satisfaction and confidence levels reported by respondents may change depending on the language pairs they use automatic translation for and their proficiency in the languages involved. Our data covers both situations in which automatic translation is able to provide relatively high-quality output for a language pair that the user is able to assess, such as Finnish–English, and situations that involve a low-resource language pair in which the output quality is likely to be considerably lower coupled with a user who does not understand one of the languages. While separating the responses based on these divergent scenarios may not be possible in the current dataset, further studies focusing specifically on the low-resource, unknown language scenario would be essential for gaining a fuller picture of the use cases.

We are preparing a new survey that focuses specifically on cases in which users lack proficiency in one of the languages involved in translation. The survey will focus on how users assess the accuracy and appropriateness of automatic translation output when they lack the linguistic knowledge to verify it by themselves, and what strategies are employed in such cases. It will also explore what types of institutional guidance employees perceive as necessary for effective and responsible use of automatic translation.

As the use of automatic translation in the public sector, like in other areas of life, appears likely to increase, there is a need for research-based understanding of the ways and contexts in which it is used. With this work, we contribute to the small but growing body of evidence and hope to stimulate further discussion on the implications for public institutions that are communicating with linguistically diverse populations.

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Appendix A. List of language pairs reported by respondents

Tables A.1 to A.4 show the language pairs mentioned by participants when asked in which languages they use automatic translation. Language pairs with Finnish as the source or target language have been grouped into Tables A.1 and A.2, respectively. Table A.3 shows language pairs with Swedish as source or target. Table A.4 shows all other language pairs that do not involve either Finnish or Swedish. The percentage in the third column is calculated as the proportion of the respondents ($n = 368$) who mentioned the language pair.

Language pair	n	%
Finnish to English	171	46.5%
Finnish to Swedish	125	34.0%
Finnish to Russian	52	14.1%
Finnish to Ukrainian	33	9.0%
Finnish to Arabic	26	7.1%
Finnish to Estonian	9	2.4%
Finnish to Romanian	8	2.2%
Finnish to Persian	7	1.9%
Finnish to Polish	4	1.1%
Finnish to Somali	4	1.1%
Finnish to Latvian	3	0.8%
Finnish to Chinese	2	0.5%
Finnish to Kurdish/Kurdish Sorani	2	0.5%
Finnish to Turkish	2	0.5%
Finnish to Albanian	1	0.3%
Finnish to Burundian	1	0.3%
Finnish to Czech	1	0.3%
Finnish to Danish	1	0.3%
Finnish to German	1	0.3%
Finnish to Greek	1	0.3%
Finnish to Hungarian	1	0.3%
Finnish to Japanese	1	0.3%
Finnish to Lithuanian	1	0.3%
Finnish to Norwegian	1	0.3%
Finnish to Sinhala	1	0.3%
Finnish to Spanish	1	0.3%
Finnish to Thai	1	0.3%
Finnish to Vietnamese	1	0.3%

Table A.1. Language pairs with Finnish as source language.

Language pair	n	%
Swedish to Finnish	86	23.4%
English to Finnish	82	22.3%
Russian to Finnish	27	7.3%
Arabic to Finnish	23	6.3%
Ukrainian to Finnish	15	4.1%
Estonian to Finnish	12	3.3%
German to Finnish	9	2.4%
French to Finnish	7	1.9%
Spanish to Finnish	7	1.9%
Persian to Finnish	6	1.6%
Polish to Finnish	6	1.6%
Danish to Finnish	5	1.4%
Latvian to Finnish	4	1.1%
Japanese to Finnish	3	0.8%
Lithuanian to Finnish	3	0.8%
Turkish to Finnish	3	0.8%
Hungarian to Finnish	2	0.5%
Kurdish/Kurdish Sorani to Finnish	2	0.5%
Somali to Finnish	2	0.5%
Vietnamese to Finnish	2	0.5%
Albanian to Finnish	1	0.3%
Chinese to Finnish	1	0.3%
Czech to Finnish	1	0.3%
Italian to Finnish	1	0.3%
Portuguese to Finnish	1	0.3%
Romanian to Finnish	1	0.3%
Slovak to Finnish	1	0.3%
Thai to Finnish	1	0.3%

Table A.2. Language pairs with Finnish as target language.

Language Pair	n	%
Swedish to English	9	2.4%
English to Swedish	5	1.4%
Swedish to Arabic	1	0.3%
Swedish to Russian	1	0.3%
Swedish to Ukrainian	1	0.3%

Table A.3. Language pairs involving Swedish as source or target language.

Language Pair	n	%
Chinese to English	3	0.8%
Arabic to English	2	0.5%
Estonian to English	2	0.5%
Russian to English	2	0.5%
Armenian to English	1	0.3%
Armenian to Russian	1	0.3%
French to English	1	0.3%
Kurdish to English	1	0.3%
Persian to English	1	0.3%
Polish to English	1	0.3%
Romanian to English	1	0.3%
Russian to Polish	1	0.3%
Tajik to Russian	1	0.3%
Turkish to English	1	0.3%
Ukrainian to Arabic	1	0.3%
Vietnamese to English	1	0.3%

Table A.4. Language pairs without Finnish or Swedish