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Research on Translation and Interpreting Technologies in Türkiye through the Lens of Translation and Interpreting Studies: A Bibliometric Study

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Abstract***

Although translation technologies started to be used in developed countries in the early 1990s, the incorporation of technology into the translation process in Türkiye took place in the early 2000s. However, the history of academic research on translation and technology in Türkiye dates back to the late 1970s and the early 1980s and 1990s. Despite this interest, translation technology research in Türkiye started to gain momentum only after 2006. As the research on translation technology continues to exhibit a quantitative increase, there is a problem of tracking academic publications, for research conducted in Türkiye and other countries. This issue has the potential to impede our ability to identify gaps in translation technology research and to ascertain which further research could be beneficial to the field. In this context, bibliometrics can significantly contribute to mapping and investigating research conducted in Translation and Interpreting Studies focusing on translation technology. In light of the aforementioned considerations, this study employs bibliometrics as its principal methodological instrument. By utilising statistical data obtained through the examination of diverse databases and visualised for further analysis, this research elucidates the principal avenues of inquiry within the field of translation technology research in Türkiye, categorised according to factors such as topic, type of publication, year, gender, language of publication. The analysis demonstrates that bibliometric research has the potential to map the landscape of research on translation technology revealing a notable diversification during the second half of the 2010s and in the post-COVID era.

Keywords: translation technologies, bibliometrics, Translation and Interpreting Studies, databases, statistical research

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Çeviribilim Penceresinden Türkiye'de Çeviri Teknolojileri: Bibliyometrik Bir Araştırma

Öz

Çeviri teknolojileri, gelişmiş ülkelerde 1990'ların başında kullanıma girse de Türkiye'de çeviri süreçlerine 2000'lerin başında dahil edilmeye başlanmıştır. Türkiye'de çeviri teknolojileri üzerine ilk akademik çalışmalar ise 1970'lerin sonunda ve 1980'lerin ve 1990'ların başında kaleme alınmıştır. Buna rağmen, Türkiye'de çeviri teknolojileri üzerine akademik araştırmaların ancak 2006'da ivme kazandığı görülmektedir. Ote yandan, Türkiye'de ve yabancı ülkelerde çeviri teknolojileri üzerine yapılan akademik çalışmaların gittikçe çoğalması bu mevcut artışın niceliksel ve niteliksel olarak takip edebilmesini gittikçe zorlaşmaktadır. Bu durum da gerek mevcut araştırmalardaki boşlukların gerek de alana faydalı olabilecek olası araştırmaların tespitini sekteye uğratmaktadır. Bu çalışmada, bibliyometrik bir yöntem aracılığıyla, çeviribilimde yürütülen çeviri teknolojileri araştırmalarının haritalandırılabileceği ve söz konusu sorunların çözümüne yeni bir yaklaşım sunulabileceği öne sürülmektedir. Bu hedef doğrultusunda, çalışmada çeşitli veri tabanlarının taranmasıyla elde edilen istatiksel veriler, konu, yayın türü, yayın yılı, yazarların cinsiyeti ve yayın dili gibi farklı kategorilere ayrılarak görselleştirilmekte ve Türkiye'deki çeviri teknolojileri araştırmalarındaki ana hatları ortaya çıkartılmaktadır. Elde edilen sonuçlar, özellikle 2010'ların ikinci yarısında ve COVID-19 sonrası dönemde önemli bir çeşitlenme kaydedilen çeviri teknolojileri araştırmalarının haritalandırılmasında ve analize tabi tutulmasında, bibliyometrik araştırmaların faydalı olabileceğini ortaya koymaktadır.

Anahtar sözcükler: çeviri teknolojileri, bibliyometri, çeviribilim, mütercim-tercümanlık, akademik yayınlar

1. INTRODUCTION

ranslation and interpreting technologies and machine translation (MT) are relatively new areas of research for scholars of Translation and Interpreting Studies (TIS) in Türkiye. Although Türkiye was at the centre of discussions on MT in the 1960s through an incomplete MT project initiated by Georgetown University (Troike, 1991), this topic has been out of the agenda for many years.

A decade after the emergence of TIS as an independent discipline on the global stage, TIS education was first offered at Turkish universities in 1983 at Boğaziçi University and Hacettepe University. In the early 1990s, the same universities witnessed the establishment of graduate programmes in TIS, which marked another significant turning point in terms of TIS education. In 1992, Hacettepe University commenced offering master's degree programmes in TIS in English, French and German. The MA programme in TIS at Boğaziçi University started in 1993, with the following year marking the start of the doctoral programme. This period coincided with the advent of the Digital Revolution, and Türkiye was connected to the Internet in mid-1990s. Computer-aided translation (CAT) tools were first made commercially available in developed countries in the early 1990s. However, they were not introduced into the translation process in Türkiye until the mid-

2010s. Similarly, CAT tools and MT were yet to be added to the translation curricula in the new millennium only towards the end of 2000s.

In parallel with these developments in TIS education, research on technology in TIS departments in Türkiye has been relatively limited. The inaugural academic publications on the nexus between translation and technology in Turkish academia date back to 1978. The earliest academic work to focus on machine translation is Mehmet Ali Özenci's (1978) master's thesis, entitled "An Experiment in English-Turkish Translation Using Digital Computers" completed at Middle Eastern Technical University (Şahin, 2024, p. 6). This was followed by Zeki Sagay's (1981) master's thesis, "A Computer Translation from English to Turkish" also from the same university. These experimental studies had implications for the field of TIS, which had not been established yet at that time in Türkiye, but they were both carried out in the field of engineering. Similarly, we witness studies on the role of computers in translation as early as 1991 by scholars working in other fields as well, such as education (e.g. Sezer, 1991; Türker, 1991). The first academic work by a TIS scholar, on the other hand, came out in 1995 with the title "Translation act in the light of developments in educational technology" (Boztaş, 1995). However, it should be noted that these scholars did not appear to continue this line of research. In the second half of the first decade of the millennium, interest in translation technologies and MT by TIS scholars in Türkiye soared, with Işın Öner being a leading figure. Following her conference presentations on localisation (Öner, 2006; Öner, 2007), Öner proceeded to supervise numerous theses on technology and MT.

Starting with the 2010s, research on translation technology diversified significantly in the TIS departments in Türkiye via the extended focus on the use of technology in translation and interpreting education and practical applications of MT systems within the translation industry (Şahin, 2009; Şahin, 2013; Şahin & Dungan, 2014; Canım, 2014; Balkul, 2015; Eryatmaz, 2017). However, it should be noted that as research on translation technology rapidly expands and increases in volume both in Türkiye and the wider academic community, it becomes more challenging to keep up with the literature on translation technology. As far as we have been able to ascertain, there is no comprehensive bibliometric study on the research on translation technology within the Turkish TIS community as of 2024. In order to provide an overview of research on translation technology conducted in TIS departments in Türkiye, ascertain the extent and impact of research, and identify short- and long-term needs, we conducted a bibliometric analysis of all research on translation technology in TIS departments in Türkiye between 1990 and 2023. As part of this research, the following research questions were addressed:

• What is the place of translation technologies and MT in research conducted in TIS departments in Türkiye and its chronological distribution?

• What are the principal venues for the dissemination of research on translation technologies and MT in Türkiye?

- What are the principal topics of study?
- What is the impact of research on translation technologies and MT in Türkiye?
- What can bibliometric research offer TIS in general?

We posit that answering these questions will yield meaningful results not only for TIS in Türkiye but also for TIS research abroad particularly for low-resource languages such as Turkish. In this sense, this study will elucidate the trajectory of research over time and how it has evolved and diversified in accordance with prevailing global trends, which may reveal contrasts and similarities with research in the international TIS community. With regard to the diversification of topics, this research may demonstrate whether or not academic institutions from different regions and countries are capable of establishing a tradition of specific lines of research in translation technologies. Moreover, a bibliometric study can assist in the mapping, navigation and discovery of potential areas for further TIS research in Türkiye and internationally.

As part of our research, we will first share the existing literature on translation technologies and bibliometrics both in Türkiye and abroad. This literature review will help us position our research in TIS in general. Afterwards, we will share our methodology in detail to reveal its potentially strong sides alongside its limitations. In the final phase of our study, we will analyse the results obtained from our bibliometric database and reveal the potential of bibliometrics in TIS.

2. LITERATURE REVIEW

In this section, we will first examine the history of MT. We will then proceed to explain how CAT tools and MT have started to be used increasingly within the industry and in translation education. This discussion will be supported by references to scholars who have conducted research on this topic. Subsequently, the existing literature on bibliometrics research in TIS will be shared in a manner that will display their focus of research.

2.1. Translation technologies and MT

Translation technologies and MT have recently emerged as two of the most significant areas of research in TIS. In the renowned map by James S. Holmes (1988), "translation aids" was categorised under the "applied" branch, alongside "translator training" and "translation criticism". In the following years, Jeremy Munday (2016) enhanced this map by including IT applications, dictionaries, and grammars as three sub-branches of translation aids. IT applications were further enhanced as illustrated in Figure 1. The 2016 map did not see any change in the 2022 edition of Munday's book.

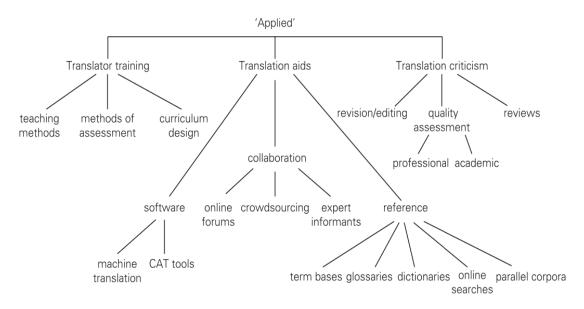


Figure 1: Holmes' Map (Munday, 2016, p. 20)

The history of MT studies in the world can be traced back to the 1930s, when precursors of MT systems were developed by Peter Smirnov-Troyanskii (Hutchins & Lovtskii, 2000) in the Union of Soviet Socialist Republics (USSR) and Georges Artsrouni in France (Daumas, 1965). Both individuals studied in the same city, Petrograd, which was renamed Leningrad in 1924. Leningrad State University was a prominent research hub for MT in the global context during the 1950s and 1960s. MT became a primary focus for the superpowers, the USSR and USA, and a significant amount of funding was made available, particularly in the USA, as MT was regarded as a means of comprehending Soviet science and thus winning the space race during the Cold War Era (Gordin, 2016). Andrejs Vasiljevs et al. (2019) present an analysis of the competitiveness of the European MT market in comparison to North America and Asia. The study provides information about MT research between 2000 and 2017, including the number of publications, major researchers, funding agencies, and other relevant data. The first MT experiment conducted by Georgetown University and IBM International Business Machines) in 1954 increased interest in the field, but the ALPAC (Automatic Language Processing Advisory Committee) report on MT was a significant setback for MT research, resulting in a substantial reduction in funding. The infrastructure of these MT experiments was then taken over by commercial companies such as SYSTRAN (Pigott, 1993). In the 1980s and 1990s, statistical models improved the quality of MT. The advent of the Internet and the growing corpus of multilingual texts made it possible to improve statistical machine translation (SMT) in the new millennium. Publicly available online MT tools such as Google Translate became increasingly popular as the quality increased for some genres.

In parallel with the emergence of novel MT models, there has been an increased focus on the development of CAT tools, including translation memory systems and terminology management systems. The utilisation of products such as SDL Trados and memoQ has become pervasive within the industry, a trend that has also resonated in the domain of translation education. Translation education has evolved to integrate the usage of translation memory and terminology management

systems, in conjunction with tools for project management, as integral components of CAT tools. The integration of CAT tools and MT in the translation curriculum started to be a topic of discussion and research in TIS (Kenny, 1999). Post-editing is now a component of translation education (O'Brien, 2002). Research on translation technologies, encompassing a range of CAT tools and MT systems, has not exclusively concentrated on the educational dimension of the subject; it has also gained traction in other potential applications, thereby inviting other disciplines to contribute to the research. Particularly in the last decade, the number of research studies on CAT tools and MT conducted by scholars of TIS, either independently or in collaboration with scholars specialising in other fields such as Computer Engineering, Natural Language Processing, and Computational Linguistics, has been on the rise in major research universities worldwide (Huang & Liu, 2020).

2.2. Bibliometric research in TIS

The term bibliometrics is defined as the application of mathematical and statistical methods to books and other forms of communication (Pritchard, 1969). Today, online bibliographical resources facilitate bibliometric analysis to a considerable extent (van Doorslaer, 2011, p. 16). *The Translation Studies Bibliography* (TSB) provides a useful illustration of the global nature of research in the field of TIS.

In Türkiye, bibliographical research studies in TIS have been successfully conducted. The Turkish Retranslation Bibliography represents the most comprehensive and systematic bibliographic work in TIS within the context of Türkiye (Berk Albachten & Tahir Gürçağlar, 2019). *Tracing Lives in Turkish* (Elgül, 2022) is another noteworthy example of bibliographic research in Türkiye. It presents a comprehensive bibliography of biographies published in Turkish since the early 1800s. A third example, though in printed format, is *Türkçe Çeviriler Bibliyografyası: Dünya Edebiyatından Çeviriler* [Bibliography of Turkish Translations: Translations from World Literature] edited by Mehmet Tahir Öncü (2017). This book lists translated literary works from the early Republican years, from the 1920s to 2016. Additionally, smaller-scale bibliographical studies have been conducted to address specific research questions, as exemplified by the works of Saliha Paker and Melike Yılmaz (2004), Şafak Horzum and Başak Ağın (2021), and Duygu Tekgül and Arzu Akbatur (2013), which present a chronological bibliography of Turkish literature in English translation.

This line of research has gained considerable popularity in the last decade within the field of TIS. The field of bibliometrics was included in the fourth volume of the *Handbook of Translation Studies 4* (Grbić, 2013). In 2015, the journal *Perspectives* dedicated a special issue to bibliometric and bibliographical research in translation studies. The objective was to raise awareness of the existence of TIS as a bibliographic entity that merits, and indeed requires, careful scrutiny. The bibliometric approach has also been employed in the context of translation research. For instance, Feng (Robin) Wang et al. (2019) employed this approach to examine the translational trajectory of a specific Chinese classic novel, *The Journey to the West*. In their 2015 study, Luc van Doorslaer and Yves Gambier (2015) employed TSB to present a geographical analysis of translation and interpreting

research, measuring the distribution of academic affiliations and examining the relationship between keyword frequency and journals, as well as languages of publication.

The application of bibliometric techniques has the potential to assist researchers in gaining insight into the current state of affairs within a given field, thereby informing future research endeavours. Alireza Akbari (2018) constructed a database comprising 14 peer-reviewed journal publications from 2000 to 2017 with the objective of conducting a bibliometric analysis of research on translation quality. Another example is provided by Yuan Ping (2021), who employed TSB to conduct a bibliometric analysis of journalistic translation research conducted between 2009 and 2019. Similarly, Qin Huang and Xiaoxiao Xin (2020) employed this research method to present an overview of research on translation criticism and to identify potential underexplored areas in the field. Huang and Furong Liu (2019) focused on a shorter period of time, 2014-2018, with a wider scope. The researchers analysed the most frequently explored topics worldwide, highly cited articles, most productive authors, most productive countries and territories. However, their analysis included only the articles published from 2014 to 2018 in the thirteen international translation journals indexed in Social Sciences Citation Index (SSCI) or Arts and Humanities Citation Index (AHCI) databases.

3. METHODOLOGY

The scope of our research was limited to scholars working at TIS departments in Türkiye. Thus, we did not include similar research carried out by researchers from other disciplines. Additionally, we had to determine a specific time period for research on this topic. We set 1990 as the starting date since it was the year when aided translation tools were made commercially available in developed countries. Furthermore, this year also coincided with the establishment of the first graduate programmes in TIS departments in Türkiye. The cut-off date for our study was set as 31 December 2023. Consequently, any works published after this date were considered outside the scope of this study.

Once the parameters of the study had been defined in terms of disciplinary boundaries and temporal scope, the next step was to identify keywords that would facilitate the location and analysis of publications in various academic databases. Initially, keywords were identified to break down the study into core themes, after which a final list was compiled before the investigation commenced. The keywords used to scan databases are as follows: Translation methods, terminology management tools, translator training, translation education, interpreting technologies, CAT tools, post-editing, localisation, translation and technology, MT, computer translation, translation memory, automatic translation, virtual worlds. In addition to these English keywords, we also conducted an extensive search with the following Turkish counterparts with a few variations based on the linguistic idiosyncrasy of Turkish: *çeviri ve teknoloji, makine çevirisi, bilgisayar çeviri araçları, bilgisayar destekli çeviri, terminoloji yönetim sistemleri, çeviri teknolojisi, ticari çeviri, sözlü çeviri teknolojileri, çeviri yöntemleri, sanal dünyalar, yerelleştirme.*

In order to be able to track our progress and store this bibliographical information, we set out to create an online Excel spreadsheet that we regularly updated as we advanced on the many sorts of publications, including journals, books, book chapters, theses, periodicals and projects. The investigation commenced with a search of the Thesis Centre, which is the database of the Council of Higher Education's (YÖK) listing of all theses (both MA and PhD) written in Translation and Interpreting Departments in Türkiye. This was followed by a search of other types of publications to continue the analysis by scanning databases such as Dergipark, TR Dizin/ULAKBİM, Google Scholar, YÖK Akademik, Scopus and Web of Science, provided by Clarivate (particularly for SSCI, AHCI, Emerging Sources Citation Index - ESCI). YÖK Akademik proved to be the most essential database, as it contains every type of academic study by researchers. Google Scholar was used for citations, as it may provide the most trustworthy information. It should be noted, however, that the credibility of YÖK Akademik and Google Scholar is contingent upon regular updates by the scholars in question.

In addition to conducting keyword searches in various databases, we had access to four wellknown translation journals: The journals *Çeviribilim ve Uygulamaları Dergisi, İstanbul Üniversitesi Çeviribilim Dergisi, Translation Studies in the New Millenium, and Çeviribilim ve Uygulamaları Dergisi* were meticulously scanned for articles dealing with technology and translation, and any that met this criterion were included in the bibliography. It should be noted, however, that there were a few exceptions that fell outside the scope of our keywords. For example, certain notable figures from the early 1990s, such as İsmail Boztaş, Ayhan Sezer, and Faruk Türker, were added to our data even if they did not work at a Translation and Interpreting department at that time. The rationale behind including these names is that they were the first within the Turkish Translation and Interpreting community to ponder and write about the relationship between technology and translation.

Furthermore, in our online Excel spreadsheet, we created 16 categories: author, title, publication, year, topic, topic-general categories, publication title, index, citation, publication language, source, type, author gender, focus, national/international, and language pair. The findings are analysed using the aforementioned categories, and the results are presented in the form of various charts indicated below.

4. FINDINGS AND DISCUSSION

In this section, we will present our findings with charts from our bibliometric database and discuss each finding. As can be seen in Figure 2, the first finding is the distribution of topics of publications in years between 1991 and 2023. According to this chart, the first publications on the relationship between technology and translation date back to early 1991:

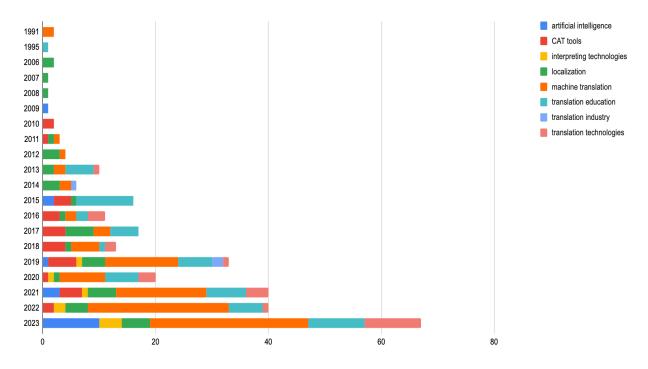
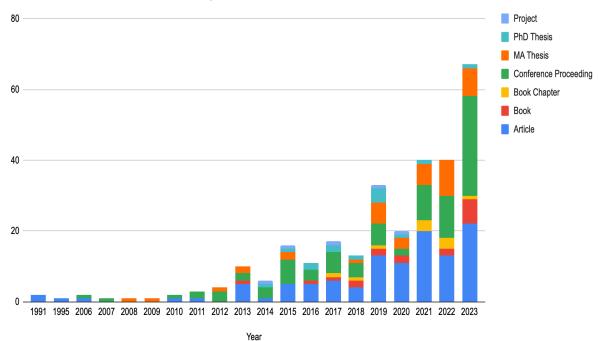


Figure 2: Year/topic chart

Two articles, entitled "Is Computerized Translation Possible?" by Sezer (1991) and "Towards Computerized Translation" by Türker (1991), were published in the same issue of the Turkish translation journal *Çeviribilim ve Uygulamaları Dergisi*, published by the Department of Translation and Interpreting at Hacettepe University. This department offered translation education as part of a translation BA programme as early as 1983. We should note that the same department and university initiated a Master of Arts programme in 1992, the first of its kind in the field of TIS in Türkiye. For this reason, it is unsurprising that these early research projects on translation technology represent pioneering contributions to the field of translation technology research in Türkiye.

However, between 1991 and 2011, no publications focusing directly on MT were observed. In particular, after Boztaş published an article on the use of educational technology in translation in 1995, no further work on technology and translation was identified until 2006, when localization emerged as a research topic within the field of TIS in Türkiye. Nevertheless, beginning in 2011, there was a notable increase in the number of research studies on CAT tools, MT and localisation. In particular, after 2013, there was a proliferation of research on localisation, MT, translation education (with a focus on translation technologies) and translation technologies. While 2015 marks the diversification of research, including that on artificial intelligence (AI), it is also the year that the number of research projects reaches 16. This is followed by four years of intensive research on localisation, CAT tools, MT, and translation technologies. From the year 2019 onwards, we have observed a diversification in research, with an increasing focus on topics such as AI and interpreting technologies. This has also led to an increase in the number of publications in this field. In 2019, approximately 25 publications were produced on the broader topic of translation technologies. In 2021, this number increased to 40, with multiple lines of research. By 2023, the number of publications had reached 70 in two years, a doubling of the output of 2021.

The observed increase in research diversity in terms of both topics and methodologies, coupled with the overall rise in quantity, suggests that Translation and Interpreting departments in Türkiye are demonstrating a keen interest in aligning with the latest trends in international TIS research. In particular, following the advent of the post-COVID era, Turkish scholars have explored novel approaches to the integration of technology in translation education. Especially, the fact that thematic conferences on translation technology are now being organised, and the interest from technology-related research from different Translation and Interpreting departments in Türkiye, may be considered as evidence of a sustained interest in translation technology research. The First National Congress on Translation and Interpreting Technologies, held at Boğaziçi University in September 2023, is an example of this academic inclination. Figure 3 presents a detailed analysis of the types of publications and their temporal distribution.





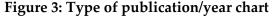
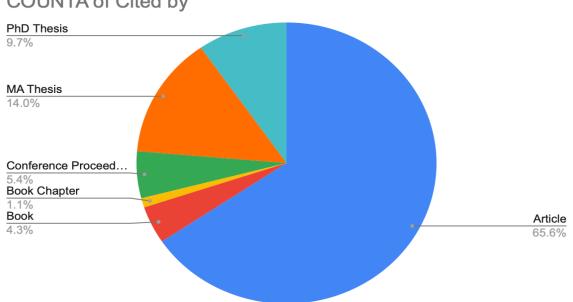


Figure 3 illustrates the diversification and increase in the quantity of publication types in TIS in Türkiye between 1991 and 2023. Between 1991 and 2005, one can see that only four articles were published. In 2008, Sinem Canım (2008) wrote the first master's thesis on translation technology and localization at the Department of Translation and Interpreting at Istanbul University, marking a positive development for translation technology research in Türkiye. This was followed by another MA thesis, written by Özge Çetin (2009), on the relationship between human and artificial intelligence in the context of translation. However, until 2013, there was no significant diversification or increase in publications by other scholars in the field. From 2013 onwards, there was a gradual increase in the number of articles and books published. Particularly after 2015, we observe a notable diversification. The year 2019 saw a significant rise in research on translation technology, particularly in theses and articles that contributed to new perspectives in MT, translation technology, and translation education. This momentum continued, with 2021, 2022, and 2023

witnessing a doubling of academic output on MT, AI, and translation technologies. As Turkish academia increasingly recognizes the potential for research in translation and technology, more scholars are approaching the subject from innovative perspectives.

This increase in articles, proceedings, and these suggests that the TIS community in Türkiye is in the process of establishing a solid academic research tradition in translation technology. New theses highlight the need for more scholars in translation departments to focus on this issue. This is perfectly natural considering the evolving nature of the translation industry. In accordance with the evolving landscape of the translation industry, translation scholars are increasingly engaged in research pertaining to the future of the profession, encompassing a diverse array of translation technology-related fields. These include MT, AI, interpreting technologies, and the integration of translation technologies in educational settings. Similarly, the rise in proceedings reflects an increase in academic meetings specifically targeting translation technology research. Furthermore, one can see that the majority of publications are in the form of articles, totalling 111. This is followed by proceedings, with a total of 91, and master's and PhD theses, with 55. It can be inferred that authors typically prefer articles because they want their work to reach as many people as possible and avoid "the risk of becoming invisible" (Rovira-Esteva et al., 2015, p. 159). This suggestion is corroborated by Figure 4, which illustrates the proportion of citations in relation to the type of publication:

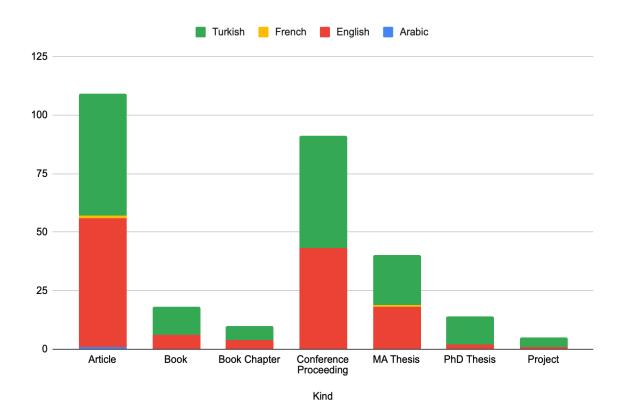


COUNTA of Cited by

Figure 4: Type of publication/citation chart

As illustrated in the accompanying chart, articles account for 65.6% of citations, a significantly higher figure than other sources. MA theses represent the second-largest category, with 14.0% of citations, followed by PhD theses with 9.7%, conference proceedings with 5.4%, books (e.g. Şahin, 2013) with 4.3%, and book chapters with 1.1%. Considering this statistical data, it seems reasonable to argue that the percentage of citations of MA and PhD theses will increase substantially over time. Each year, new theses on various aspects of translation technology are being written in Translation and Interpreting departments in Türkiye. Similarly, as academic events specifically devoted to translation technology research increase and diversify, the number of conference proceedings will also rise. This will enhance the visibility of research in translation technology, thereby increasing the number of citations for articles as well.

In terms of the gender distribution of authors, the data analysed reveals a positive outlook for the TIS community in Türkiye, showing a near-perfect gender balance in translation technology research. While 50.5% of all scholars are male, 49.5% are female. This demonstrates that employment in Translation and Interpreting Departments in Türkiye, particularly in translation technology research, does not exhibit a male- or female-dominated distribution. In fact, the majority of publications indicate a collaborative effort between authors of different genders.





The final chart in our discussion, Figure 5, reveals the languages in which different types of publications are written. This is particularly important as it shows the language preferences of the TIS community in Türkiye. The data indicates that out of 287 publications, 155 are written in Turkish, 129 in English, 2 in French, and 1 in Arabic. This means that 54% of publications are in Turkish and 44.94% are in English. Regarding the types of publications, of the 108 articles, 55 are in English, 52 in Turkish, and 1 in French. Overall, English articles outnumber Turkish articles. However, the number of Turkish publications is higher in other categories, as shown in the chart above.

The choice of publication language should be evaluated in the context of the target readership and the academic realities within the country. While publishing in the mother tongue can significantly contribute to the development of a country's academic and scientific language, it also has some disadvantages. Firstly, using the mother tongue for academic publications significantly limits the visibility of scholars and their ideas, which could bring new perspectives to the academic discipline. Additionally, writing in the mother tongue makes it more difficult to enter the international academic discourse and reduces the potential for international collaboration. Furthermore, this can lead to the circulation of ideas within a limited number of journals and thus create a sort of academic monopoly within the country. Although the same can be said of international mainstream translation journals, the number of alternative journals advocating for open access to information and ideas is growing significantly.

5. CONCLUSION

This study aimed to demonstrate the potential of bibliometric research in TIS with a focus on technology and translation research in Türkiye. To this end, we first provided a brief overview of research on translation technology since 1978, the year that the first publication on the relationship between translation and technology in Türkiye was produced by non-TIS scholars. We also elucidated the early research conducted by various TIS scholars. In our methodology, we set our parameters as the period between 1990 and 2023 and the Translation and Interpreting Departments at Türkiye. We identified a set of keywords and conducted a comprehensive search of various databases, including TR Dizin/ULAKBİM, YÖK Akademik, Google Scholar, Scopus and Web of Science. Subsequently, we compiled an extensive database using Microsoft Excel, categorising the information in 16 categories: author, title, publication, year, topic, topic-general categories, publication title, index, citation, publication language, source, type, author gender, focus, national/international, and language pair.

Due to time and space constraints, as part of our research, we could share only a part of our study. Yet, this paper presents crucial aspects of our bibliometric research. The findings of this study reveal unique results that are also highly generalisable. After the second half of the 2010s, there was a rapid diversification and increase in the number of publications, consistent with research in the field of translation technology within the broader TIS community. However, after 2019, in the case of Türkiye, the numbers and themes of studies have almost doubled so far and continue to rise. The most common academic publication format was articles, which received the highest number of citations followed by master's and doctoral theses. Additionally, the gender of authors showed that there was no significant difference in the number of male and female authors publishing on translation technology and MT. Finally, the percentages of publications revealed a striking balance between English and Turkish. Turkish was slightly more prevalent than English, indicating that it is a strong academic language in the production and distribution of translation technology research in Türkiye.

The above findings and discussion of our bibliometric data reveal results that may be of interest to the TIS community on the international level in various aspects. The methodology of our study has the potential to illustrate the possibilities of bibliometric research in TIS. In an increasingly interconnected world where the borders of academia tend to blur and disappear completely, the accumulation of data in a bibliometric manner sheds light on who conducts which study from which perspective in which country and university. As the quantity of research on translation technology continues to increase, it becomes increasingly challenging for scholars who aim to adopt a universal perspective in their research to keep up with new research from around the world. This could result

in a narrowing of the perspective taken in TIS research, due to the difficulty of following academic productions in various traditions and communities of TIS, particularly outside Europe.

However, bibliometrics may assist us in mapping, listing, and categorizing research globally, thereby broadening our perspective and opening up to an endless array of possibilities within the discipline of TIS. Such listing or tracking of records can make profound contributions to our research by allowing us to identify potential collaborators or individuals engaged in similar research in our respective traditions, thus enabling us to ascertain similarities and differences. That is, in accordance with the nature of scientific knowledge, the incorporation of existing research may facilitate the development of novel strategies, theories, and methodologies and thus advance TIS with a particular emphasis on research related to translation technologies, MT, and AI.

Moreover, this bibliometric research on translation technology illustrates how technology has gradually emerged as a prominent area of inquiry within the TIS community in Türkiye. It also demonstrates how TIS as a discipline can readily adapt to new research lines and approach the issue from distinctive perspectives. In line with current developments, it seems reasonable to argue that research on translation technologies, MT, and AI will increase at an ever-increasing pace. Furthermore, perhaps most importantly, this research should instil hope that the TIS community strives to comprehend and implement practical solutions to problems and possibilities that new developments around the world may bring soon. As an autonomous field of study, TIS will flourish and evolve in line with the rapid advancements of our era, as it has since its inception. In this regard, bibliometric research can assist in gauging the scope and trends of research activities from a broader perspective and identifying potential avenues for advancement where further exploration is needed.

Data availability statement

The dataset analysed can be accessed upon request.

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