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TRANSLATION TECHNOLOGIES:

A DILEMMA BETWEEN TRANSLATION INDUSTRY AND ACADEMIA

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#### Abstract

Today, physical and virtual borders are shrinking thanks to technology whose footprints are greater and faster than one can imagine. Beyond the shadow of a doubt, technology is associated with the areas for which it offers solutions such as education technologies, health technologies and translation technologies. Nowadays using translation technologies is somehow a necessity rather than a choice in professional settings due to the strict deadlines of translation briefs. Also, translation technologies are indispensable components of translator education programs whose main purpose is to prepare qualified and well-trained fellows for translation sector. This research asserts that translation technologies were addressed by translation theories even before the advent of translation industry. However, it is a well-known fact that theoretical translation studies did not focus on translation technologies very much. Thus academics working in translation studies discipline have been criticized by translation sector for a long time. This study illustrates the contributions of translation theories to the development of translation technologies. Besides, this paper will discuss some specific points of translation theories indicating the infrastructure and functions of translation technologies. Finally, it is argued that some specific issues related to both the development and teaching of translation technologies can be better understood if the teaching practices of translation theories are considered in depth.

Keywords: Translation technologies, translation theories, translation industry, translator education.

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#### 1. Introduction

Industrialization, globalization, social media and technology have affected the progress of translation studies from different angles. It is an undeniable fact that translation is in every corner of our life. According to European Union (EU) Directorate-General for Translation (DGT), 1.9 million pages of documents were translated in 2015. Of this, 73% was done in-house (1,459,476 pages) and the rest by contractors (532,156 pages). A page is 1500 typed characters not including spaces. DGT's workload is steadily rising, not only because of the constant expansion in the Commission's areas of activity but also because of the fact that more official EU languages were added when new members joined the EU in 2004, 2007 and 20132. It seems that the above-mentioned number of pages to be translated will increase in the following years because the need for translation is increasing day by day and the materials to be translated are growing more and more numerous. Additionally, time is an important factor in translating process since some documents must be urgently translated into different vernacular languages in some fields such as policy, journalism, and military affairs. Today, it can be easily stated that both original written and localized documents are released concurrently. For all the underlined reasons above, translation technologies have gained great significance.

Translation technologies fall into two main groups which are machine translation programs and computer-assisted translation (CAT) tools. The most prominent CAT tool is undoubtedly translation memories whose background dates back to 1980s (Bowker, 2002). By the way, it needs to be kept in mind that translation memories, one of the most frequently used translation technologies, provide the users with terminology consistence and matching facilities, not just time-saving expedience. On the other hand, machine translation systems translate a given document automatically from a source language to a target language (Alcina, 2008). Indeed, different translation technologies have different advantages and drawbacks but discussing all of these topics is not the main scope of this research. This study focuses on the role played by theoretical translation studies in the development of translation technologies both at the level of philosophy and working principles of these machines, which is a prominent research gap from the view point of this paper.

Actually, this modest research was penned as an answer to the constant complaints claiming that translation studies ignored translation technologies in the main stream of the discipline (O'Hagan, 2013; Alcina, 2008). On the other hand, Fernandez-Costales (2009b) states that the research of academics working in translation departments has contributed to improving and enhancing translation technologies. At this point, there must be done a clear-cut distinction between theoretical translation studies and academic translator education because the progress in theoretical issues in a particular academic discipline might fall behind the research findings in that discipline.

In translation studies literature, there are limited number of studies exploring the relationship between translation technologies and translation theories. Pym (2013) states that current translation theories which are mainly about literary translation cannot explain several aspects of the translation process carried out via the help of translation technologies if those theories insist on the loyal status of the source text and the great author. Besides, Chesterman (2000c) argues that the concept of translation theory changes depending on the translation concept on the mind of a given translation theorist. As Quah (2006) suggested, an ideal theory of translation can be related to the

<sup>&</sup>lt;sup>2</sup> http://ec.europa.eu/dgs/translation/faq/index\_en.htm (Retrieved on 11/8/2016)

relationship between computer programming and machine translation from the perspective of a translation theorist whose field of expertise is natural language processing.

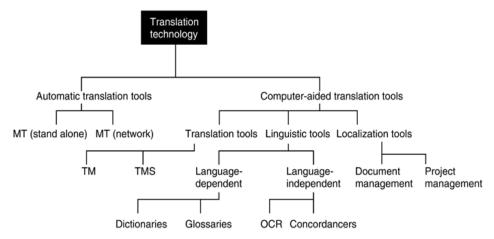
The content of the current study is organized as follows: first of all, the place of translation technologies in translation studies academic field is discussed by citing significant studies in the related literature after the introduction. Then, the relationship between translation technologies and translation theories is explored in the second section. In the following section, the place of translation industry in the design and development of translation technologies is reviewed. Finally, the last section of this research concludes the ideas argued in the study.

## 2. The Position of Translation Technologies in Translation Studies

"Translation technologies" is a generic term which is defined and categorized in various ways by different translation scholars (Melby, 1998; Bowker, 2002; Austermühl, 2001-2006). However, in this paper, translation technologies are grouped in two main branches: machine translation programs and computer-assisted translation (CAT) tools as suggested by Balkul (2015) in his doctoral thesis.

In his seminal paper, Holmes (1988) identified the branches of the new discipline he calls "translation studies". Although the key term "translation" was a research phenomenon for various disciplines such as linguistics, literature and philology, its academic roots started to be shaped with the valuable contributions of James Holmes. He stated that there are general translation theories and partial translation theories. Among the partial translation theories, medium-restricted translation theories are of great importance for our research because the milestone paper of the new discipline puts emphasis on the technological tools used in translation. According to Holmes (1988), medium-restricted theories can be subdivided into theories of translation as performed by humans (human translation), as performed by computers (machine translation), and performed by the two in cooperation (machine-aided translation). Together with theoretical translation studies, his paper deals with translation tools in the applied branch of translation studies. Here, translation tools fall into two main classes: a) lexicographical and terminological aids and b) grammars.

Munday (2001) expanded the map of applied translation studies considering the progress in the discipline as well as technological developments. He sorted out translation tools into three groups: a) CAT tools, b) dictionaries and c) grammars. He then divided CAT tools into four classes: a) machine translation programs, b) translation software, c) online data banks and d) internet applications. 5 years later, Quah (2006) made a radical change in the map of the applied translation studies and examined translation technologies in detail. Figure 1 below shows the details of this categorization.



MT = machine translation; TM = translation memory; TMS = terminology management systems; OCR = optical character recognition

Figure 1. Translation Technologies Field as a Sub-branch of Applied Translation Studies Adapted from Quah, 2006:4

## 3. Translation Technologies and Translation Theories

The current study puts forward that the progress made in translation technologies largely went hand in hand with the ruling translation theory paradigms. Although there are some exceptions for this claim, this part of the research discusses the close relation between the above-mentioned close friends. At the same time, it needs to be considerably noted that the progress made in translation theories has not always been linear. Tracing back to Cicero (106 BC - 43 BC) whose main focus was sense-for-sense translation method, it can be stated that translation theories have always debated whether word-for-word translation or sense-for-sense translation method must be administered. If theoretical discussions about translation methods are reviewed through the ages, it can be easily deduced that "form" and "meaning" have always been the matter of contradiction among translation scholars.

Translation theories were shaped under three main paradigms, which are: linguistic turn, cultural turn and sociological turn (Hornby, 2006). Even though it wasn't accepted by all researchers in the discipline, technological turn has recently shaped nearly all applied sub-branches of translation studies (Zhang & Cai, 2015). Being closely-related with translation technologies, localization has been regarded as a significant paradigm shift in translation by Pym (2009).

Considering the research trends of the 20th and 21st centuries, it can be stated that until the 1980s, linguistic approaches to translation were dominant in translation research which were inadequate examining the social impacts of translating process and the translation product. At that time, translation used to be accepted as a code-switching process between source language and target language. Hence, the branches of applied translation studies such as translation policy, translator education, translation criticism and translation aids mainly concentrated on formalistic studies. Therefore it should not be surprising to see translation technology research trend of the mentioned-time being parallel to linguistic approaches to translation. This is because none of technological progresses, carried out in a specific time, can be judged independently from the ruling theoretical paradigm of the research field. To illustrate the issue, the progress arrived in machine translation research can be shown as a bright example.

According to Hutchins (1986), the systematic research in machine translation dates back to the end of the 1940s and continued mainly in the form of the rule-based machine translation approach. This approach briefly takes the simple mentality of linguistic approach to translation in which foreign texts are translated into the target language via simple grammatical rules coded inside the machine. This approach was popular until the 1980s when example-based (statistical) approach began to dominate the market. Besides, the 1980s and 1990s were important time periods because another significant translation technology, translation memories, hit the translation market. The roots and mentality of example-based machine translation and translation memories have a lot in common except for the very fact that translation memories do not translate a document but give clues indicating previously translated sentences.

It should also be remembered that the 1980s were the years when functional approaches to translation started to appear in theoretical translation research. Skopos theory (1984), translational action theory and functional translation theory were the prominent theories affecting translation studies. Although there were no particular traces of translation technologies in these theories, it can be easily inferred from the critical readings of these theories that they opened a new age considering translators as experts in the production of target texts. Additionally, functional translation theories liberated translators to use necessary translation aids whenever they need to produce efficient translation products after the compromise reached between the client and translator. If the mission of a translator is accepted to produce a translation product in accordance with the expectations of the commissioner in these theories, it is logical to expect from a translator to use necessary translation aids including translation technologies to fulfill this duty. What's more, it is the mission of translators to make translation-oriented text analysis, to research about the source text and to inform the client about translating process in these theories. There is no doubt that translation technologies are indispensable aids for these assignments of translators in today's technology age (Lagoudaki, 2006; Ersoy & Balkul, 2012). The examples stressing the importance of translation technologies in the clienttranslator relationship are manifold but the limitations of this study hinder the author.

Although translation theories brought about many revolutions in the translation profession, unfortunately the traces of them couldn't be implemented into translation technologies research for a long time. As Williams (2013) noted, technological factors were not fully integrated into mainstream translation theories, which have so far failed to acknowledge an epistemic influence of technology on translation. For instance, examplebased machine translation programs and translation memories whose background date back till the rise of functional translation theories did nothing for the sake of the sophisticated translation process. They only provided translators with fuzzy and exact matches from previously translated text units but failed to suggest contextuallymeaningful and coherent sentences. In this regard, it wouldn't be wrong to state that translation technology research has fallen behind the theoretical translation studies for a long time. The origins of this problem can be found in a very simple idea that translation technologies were not produced and updated with the contributions of translation scholars. As Kingscott (1996) underlines, translation technology research was much more needs-driven rather than research-driven. This drawback might either be caused from the unwillingness of translation scholars to use these technologies or the recklessness of translation technology vendors into translation theory and academia. On the other hand, some translation technologies namely terminology management tools, desktop publishing tools and online dictionaries were not merely designed for the purpose of translation activities but for other purposes such as language learning and applied linguistics.

After the years following the reflections of functional translation theories, theoretical translation studies were affected by sociological approaches and this situation ended up with laying out sociological effects of translated products and translation process on a given society. Pierre Bourdieu's "Field Theory (1975)" and Bruno Latour's "Actor-network Theory (1987)" have been examined by several translation scholars (Buzelin, 2005; Gouanvic, 2005; Wolf, 2012). Today, people interact with each other than any time in history thanks to the effects of globalization and multimedia systems. Undoubtedly, translators can also easily reach out to their clients and other translators through the above-mentioned systems. In this regard, it would be very rational to suggest that there is a close relationship between sociological aspects of translation and translation technologies. It can be easily seen in the modern translation market that a good deal of translation briefs are given and commissioned through virtual translation platforms such as "proz.com" and "translated.net". Thus, it is becoming necessary to use modern translation technologies day by day (Pym, 2011a).

At the same time, new types of translating have emerged in recent years such as crowd sourcing and voluntary translation; therefore, translation process has started to be accepted as a team endeavor rather than an individual's work. What leads to think over the relationship between translation sociology and translation technologies is the very fact that all the aforementioned translation related activities are bound to the use of technology in general. However, at this point it would be crucial to indicate whether sociological aspects of translation theories affected translation technologies or whether translation technologies had an effect shaping sociological aspects of translation. It wouldn't be irrational to put forward that is a controversial issue. Beyond the questions, it can be claimed that both fields had a mutual relationship with each other. Generally speaking, it can be asserted that sociological developments affected translation technologies before its competitor. Because sociological research in translation studies date back to the 1990s, the days when translation technologies did not start to affect translation market on a large scale. On the other side, it is still puzzling whether translation technology designers were inspired by translation theories while designing their tools. Additionally, there remains another important question: who are these people, translation technology designers? In other words, did these people get an academic translation education?

## 4. Where is the Translation Industry?

Nowadays nearly all research papers in the field emphasize the growing need for translation and it is a cliché to state that translation is more important today than any period in human history (Bowker, 2015). For the research aim of this study, it needs to be clarified what roles translation industry should play while balancing theory and practice in the field of translation technologies. At this point, it should be clearly stressed that the translation industry consists of different agents from translation bureaus to localization companies and translation technology vendors. Despite some innovative progress, it wouldn't be very pessimistic to suggest that everyone can set up translation bureau in Turkey; in other words, the entrepreneurs who are not translators or even bilinguals can open a translation bureau (Parlak, 2012). Hence, it can be very naïve to expect a deep understanding of theoretical concern from these people while designing and evaluating translation technologies. On the other hand, academia should accept that the translation industry aims to accelerate the translating process and provide to the translators with consistent feedback. By the way, it must be keynoted that the target user group of translation technologies is not just translators but especially the people who want to understand a document written in a foreign language. Machine translation programs such as "Google Translate" and "Babylon" can be a very good example for the claim stated

above. Today millions of people use such programs in hand to get a general opinion about a text written in a foreign language.

One of the main concerns of this paper is to bring translation industry and academia together so as to understand and design translation technologies more efficiently. To this end, both participants of the translation world must cooperate in this field. Not only must academia care about theoretical concerns, but also the translation sector must give importance to the deep heritage of theoretical translation studies. Doherty (2016) argues that theoretical models and approaches to translation are typically sidelined or ignored in favor of the more tangible and immediate gains offered by translation technology solutions in translation industry. Hence this paper contends that there must be a mutual friendship between academia and translation sector. Furthermore, theoretical translation studies must take notice of industry-specific considerations. Here, it is stated that academia must function like a bridge between translation clients and the translation industry. Another important detail here is that translator education curricula across the world must be re-structured by taking translation technologies into consideration. At this point, this study totally agrees with Bernardini (2004) who prefers the term "translator education" rather than "translator training", the latter one sounds more related to the onthe-job training activities. However, the aim of translation departments should be to coach future translators who are life-long learning followers. Balkul (2015) also sets forth the milestones of how to integrate translation technologies into translator education programs, especially in Turkey. Therefore, it would be enough to emphasize the significance of a close relationship between academia and translation sector for a better understanding of translation technologies.

### 5. Conclusion

In search of a deep understanding of the relationship between translation technologies and translation theories, the current research aimed to answer the criticism stating that theoretical translation studies has ignored translation technologies for a long time. Despite the fact that general translation theories were not able to cover translation technologies in their teachings inclusively, it would be unfair to claim that general translation theories have not inspired the research in this field at all. However, it should be emphasized that partial translation theories have failed to expand the research in medium-restricted theories, which are specifically about translation technologies. Therefore, this paper sets forth that both translation scholars and academia must reflect upon this area so as to catch up with the advances in technology. Thus, both theoretical studies on translation technologies can be expanded and the research in translation technologies can be based on solid roots. Also this study displays that a critical reading of general translation theories unfolds insights for translation technology research. There is no doubt that any theory related to any academic field is a result of deep research studies seeking for the generalization of research findings.

In this study, it was displayed that the progress carried out in translation technologies was somehow parallel to the theoretical paradigm in general translation theories. It can even be argued that general translation theories prepared a necessary background for the research in translation technologies. The progress performed in machine translation, translation memories, localization and crowd sourcing is closely related to the reflections of translation theories. This paper strongly asserts that linguistic approaches to translation, functional translation theories and sociological approaches to translation are all inspiration for translation technology-related research. The crucial question to be asked here must focus on the degree of interaction between translation theories and translation technologies. By all means, this is not an easy question to answer but it must be the duty of translation scholars to find proper answers for this question and to find out more challenging questions examining the relationship between the above two. All in all, if translation technology vendors aim to design new translation technologies, especially suitable for minor languages such as Turkish in our case, these vendors must work together with academia for better products.

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