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The Status of ICT Employment among Iranian Freelance Translators

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***Abstract* – In today's world, information and communications technologies are effective and significant tools for translators. This includes both general-purpose software applications and special-purpose software, such as Internet search engines and business networks. Fulford and Granell-Zafra (2005) presented a model which covers both information and communications technology (ICT) and computer-assisted translation (CAT) tools to support a wide range of activities, including document production, information search and retrieval, communications, business management, marketing and work procurement, and translation creation. Among the activities included in their model, information search and retrieval, communications, and marketing and work procurement are supported by ICT tools, and the rest by CAT tools. This paper aimed at investigating the status of ICT employment among Iranian freelance translators. A questionnaire survey was used for data collection from participants in the present study. The findings of the study reported most employment of general-purpose software applications by Iranian freelance translators, such as online dictionaries and Web browsers, whereas the least employment was found to be special-purpose software, such as File Protocol Transfer (FTP) and Internet Relay Chat (IRC). In addition, the effectiveness of ICT has been accepted by most Iranian freelance translators. This study also offered implications for those responsible for the spread of ICT knowledge via translation, for those responsible for training translators, for both translation students and trainee translators, for novice freelance translators, and for those who have invested in the translation sector.**

***Keywords* – Freelance Translator, Translator's Workstation, Machine Translation, Computer-Assisted Translation, Information and Communications Technology.**

I. INTRODUCTION

Today, there are many technological translation tools available to translators, including information and communications technology (ICT) tools, computer-assisted translation (CAT) tools, and diverse types of machine translations (MT), of which ICT tools play the key role for professional translators, especially freelance translators. Modern information and communication systems are beneficiary in numerous ways; namely speed, flexibility, timeliness and comprehensiveness which make significant alterations in the method of undertaking a translation profession [2], creating easier access to a huge amount of information to safer and easier communications.

ICT encompasses "a range of hardware and software used to collect, process, store, retrieve and transmit data in various forms" [10], which the Internet plays the main role in these activities. That is to say, ICT refers to computer- based tools and the Internet. She argued that new literacies are required to use ICT tools, such as a combination of technical - procedural skills as well as the competency to comprehend and employ information in multiple formats, introduced via computers alongside emotional and social skills. It implies that the translator needs to be familiar with and to acquire the knowledge of using ICT before employing them. The importance of using ICT is indicated by [24] as "for more than half a century, busy translators have been relying on information technologies to make tight deadlines and deliver high-volume translation services."

In the past, the process of translation was done by traditional methods, such as manual dictionaries, dictating

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equipment and typists, which took a lot of time and energy. According to [4], many years ago a great majority of freelance translators had to use a typewriter or speak translations aloud for a secretary; some years later they were equipped with a computer and a word processor; nowadays they need to increase their level of knowledge about translation-memory software and terminology managers, and must be proficient in working with the Internet because computers and the internet have made a great change in the way translators work. [20] Pointed out that "translations need to be done ever more quickly, much more efficiently, and at a high quality." By using such traditional tools, achieving this goal was almost impossible. In addition, the way of communication was made by fax or via the conventional postal system which led to poor communication. In this way, it was difficult for translators to have complete access to information and knowledge of other societies, cultures, and languages. Translators needed to obtain those information and knowledge to produce better translations. Freelance translators, who have to cope with all translation activities alone, were no exceptions. That is, these traditional methods had created serious problems for them.

In Iran, the entering of technology in the translation industry is not a faraway reality. Such problems stated above have existed and still exist to the extent that some are used by many translators, such as, pen and paper, and paper dictionaries. Furthermore, it is also seen that the way of communication is made by using conventional methods, such as fax.

The lack of expert teachers in the field has reached translation universities; hence no workshops, seminars or courses held to teach and enhance the knowledge of using ICT and other technological translation tools in Iran. Iranian freelance translators need to make their knowledge more modern by adding additional information as well as acquiring modern technologies in different translation domains. The translation industry is worldwide, and is going towards globalization. The process of globalization, as [13] stated, is "rapid, complex and full of uncertainties and expectations." This leads to "the emergence, in recent years, of international networks of translation companies, and of translation companies specializing in one or more (invariably high-tech) domains" [19]. Furthermore, most clients tend to receive translations with higher quality, lower price and in a shorter time. Thus, countries that invest in science and technology (S&T) can move ahead better in the global system and react effectively to the changes made by globalization [13].

The present study aimed at investigating the usage of ICT by freelance translators in Iran. In another word, this study attempted to enable Iranian freelancers to change their attitudes towards the use of modern translation technological tools and clarify the importance of such tools for those responsible for the educational sector. With regard to the significant role of the Internet in using ICT, the decision was made to divide activities presented by [6] into two groups to conduct the study in great detail. The first group covered activities which the Internet was considered a need. These activities have been studied in the first phase of the research project, including information search and retrieval, communications, and marketing and work procurement. This study reported the findings of the first phase of the research project. This phase contained an exploratory survey of ICT employment by Iranian freelance translators. It is hoped that the findings of this study will be beneficial to those responsible for the spread of ICT knowledge via translation, to those responsible for training translators, to both translation students and trainee translators, for novice freelance translators, and to those who have invested in the translation sector. In order to achieve the objective of the first phase of the project, the following question has been answered:

1- To what extent do Iranian freelance translators employ ICT tools?

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II. Review of the Related Literature

The development of computer-based applications depends on the translators' demands, i.e. translation tools [7]. A wide range of translation tools covers "a translator's workstation" or "workbench" which was found in the 1970s and early 1980s [8]. The translator's workstation has been presented through many categorizations (see for example [18]; [9]; [8]; and [14]). According to [1], the ICT employed by translators must include not only the concept of "translation as a business" but also translation as "a linguistic and cultural process" which this notion is derived from his "process-orientated" approach of the translator's workstation.

From the translation industry point of view, ICT tools have not been taken into account by presented models because such models have been limited to translators' linguistic activities (as cited in [7]); whereas, ICT tools, as well as CAT tools, are one type of available technologies for translators which both are needed to be employed by a freelance translator to support all translation activities. Thus, [6] presented a different translation workstation model from the previous ones, which both ICT and CAT tools have been considered. Their model covers activities, including document production, information search and retrieval, communications, business management, marketing and work procurement, and translation creation (as cited in [7]).

Notwithstanding many different models that are presented about the translator's workstation, as well as the great importance of the usage of ICT by freelance translators, existing empirical studies have not been conducted to cover all translation activities employed by the freelance translator except the one was done by Fulford and Granell-Zafra on UK freelance translators in 2005. Some studies have paid attention to a narrow subset of translation tools. For example, they have focused on CAT tools [15], or concentrated on terminology management tools [16] as well as on machine translation [25]. Along with these studies, some works were already done on translation memories [21]. Furthermore, there were some researches which paid attention to translator curriculum and university training courses (see [5]; and [12]).

There has been no previous study on freelance translators and ICT employment in Iran; the studies undertaken have focused on other translation tools, such as machine translation, CAT tools, translation memory tools, and translator curriculum. For example, [22] evaluated the usefulness of translators' training curriculum in English language, considering the courses, language skills and development of the translator competency areas. [23] Made a comparison between BA and MA translation students to investigate their abilities in IT skills, their learning of IT related competences in the translator training programs, and their opinions about the importance of IT skills in their professional activities. In the study done by [11], the professional status of Iranian translators was investigated.

Although the recent studies mentioned above were constructive and effective, their main focus was on translation students and trainee translators than freelance translators. Moreover, the issues surrounding the employment of ICT by Iranian freelance translators were not taken into consideration. For example, in the first study, the importance of ICT courses was not taken into account while learning how to employ such courses is a need not only for professional translators but also for translation students. The shortage of the next study was that the employment of ICT to support ICT related activities has not been considered by [23], namely information search and retrieval, communications, and marketing and work procurement, in the questionnaire they designed for data collection. Here, the question is that is it possible to ignore ICT employment when the focus of the study

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is on investigating IT skills? In the last study conducted by [11], ICT employment, as one main problem for most professional translators, was not considered by them among those determined challenges. This challenge was of great importance and should be regarded by the researchers and those who were asked to express their opinions about current challenges the translation profession in Iran are confronted.

Along with existing empirical studies undertaken in the field, the present study can provide useful information about both the general-purpose software applications and specific-purpose software that are employed by freelancers as an aid to cope with various activities in their profession.

III. METHOD

A. *Participants*

All freelance translators whom the questionnaire was sent to and who answered the questionnaire have been properly considered the participants of the present study. The number of the participants was 287 of whom females outnumbered males, 179 females and 108 males.

B. *Instrumentation*

A questionnaire was used in this study. In order to design the questionnaire, many books have been studied, namely *Researching Second Language Classrooms* by [17] and *Research in Education* by [3], and some helpful guidelines have been adopted. The main suggestion was heeded from the questionnaire was used in the same study done on UK freelance translators by [6]. When the questionnaire was designed, it was validated by following steps. It was first pre-tested by twenty translators who were asked to read all questions carefully, focusing on content, wording, and validity of each question, before expressing their opinions. After receiving some useful feedback which led to some corrections in the wording of some questions and the structure of the questionnaire, it was re-tested by ten professional translators. The questionnaire was organized into the following parts:

- *Part I: Personal Details*

This section covers questions about background information of the participants, such as their age, gender and educational degree; the characteristics of their translation business; and information technology (IT) knowledge of the participants.

- *Part II: ICT Employment*

This part contains questions related to ICT employed by the participants to support the first group of translation activities, including information search and retrieval, communications, and marketing and work procurement, as well as participants' opinions about ICT employ in their translation workflow.

C. *Data Collection Procedure*

As the list of the Iranian freelance translators was available on the Internet (www. motarjeman.org), the mailed questionnaire method was employed. In this way, the questionnaire was sent to the participants whose email addresses were available on their profiles and all responses were received through email too.

D. *Design*

There were many methods, such as surveys and case studies, available to the researcher to investigate the usage

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of ICT by Iranian freelance translators. Surveys provide researchers with a very efficient method that enables them to collect large amounts of data in a short time with low price (Dornyei as cited in [17]). Four types of survey presented by Bryman and Bell (as cited in [7]), including questionnaires, interview, observation studies, and content analyses. Among these four types of survey, the questionnaire type was an appropriate method for data collection in the present study. This was because of the fact that it provided the researcher with the opportunity of collecting data from a large number of Iranian freelancers in all around the country with a smaller amount of money in a shorter time than other types.

IV. Results and Discussion

This section presents the detailed analysis results of the questionnaire survey. In order to analyze the data of this study, each question was analyzed separately and the characteristics of the participants were described. Here the important findings derived from the questionnaire are discussed.

A. *Personal Details of the Participants*

In this section, the focus is mainly on some demographic information of the participants of the study. The summary of these pieces of information is as follows:

According to age distribution, all participants belonged to the following age range: 20-29 years (44%), 30-39 years (30%), 40-49 years (13%), 50-59 years (9%), and 60 + years (3%). Near half (51%) of the participants held MA degree, 44% BA, % 3 DA, and 1% PhD. The educational degree of 90% of the participants was related to translation of whom 47% held MA, 40% BA, and 3% held either AD or PhD degree in translation. The rest (10%) of the participants held educational degrees unrelated to translation. As the results indicated, a high proportion (75%) of participants had less than 10 years' experience in translation (36% had worked as freelance translators between 1 and 4 years, and 39% worked between 5 and 9 years). Only 25% of participants were quite freelance translators.

Nine percent of the participants in the sample dedicate 24 hours to translation-related task each week. In addition, on the average the participants spent 25.39 hours on translation-related task each week. While around two third of the participants offered no additional services other than translating, the remaining (36%) offered additional services, 25% of whom were engaged in language training activities as well.

Persian to English and English to Persian (59%) were used as the most translated language pairs, followed by Persian to French and French to Persian (13%) as well as Persian to German and German to Persian (8%). The remainder (11%) included a number of language pairs, namely Persian to Turkish and Turkish to Persian, and Persian to Arabic and Arabic to Persian. The most and the least subject areas among freelance translators were marketing and advertising translation (15%), and legal translation (10%) respectively.

The great majority (65%) of the participants had surprisingly acquired their IT skills via 'self-taught', which was much larger than the frequencies of other ways. Moreover, the small number (36%) of the freelance translators had held any form of formal IT qualification. In addition, wide area network (WAN) (90%) was the most frequently used type of network by the participants in the sample.

B. *Information and Communication Technologies Employment*

Participants were asked to indicate their usage of software applications they employ in their translation work.

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In this section, the important findings of the questionnaire survey related to information search and retrieval activities, marketing and work procurement activities, and communication activities are reported in brief. The details of ICT employment alongside the details of types of each software application and the activities supported are provided in tabulation forms.

Information Search and Retrieval Activities

According to Table 1, Internet search engines as well as web browsers were used as the most software programs to support information search and retrieval activities (96% of participants used internet search engines and 95% used web browsers). Among search engines, Google was the most used and the most popular engine, with Yahoo! coming in second place (56% of the participants used Google and 44% used Yahoo!). From web browsers, Google Chrome and Internet Explorer were used by 40% and 38% of the participants respectively. Online dictionaries were also employed by 92% of the participants. The most used dictionaries in order of the usage frequency were: Oxford English Dictionary (18%), Aryanpour (17%), Cambridge Dictionary (16%), and LingvoSoft (14%). Online encyclopedias were the least used types of online resources (36% of the participants used them).

Table 1. Information Search and Retrieval Activities.

	Types	**Frequency**	**Total**	**Percent**
Internet search engines		276	287	96.1
	Google	154	276	55.8
	Yahoo!	120	276	43.5
	Bing	1	276	.3
	Ask	1	276	.3
Major web browsers		271	287	94.4
	Google Chrome	108	271	39.8
	Internet Explorer/ Microsoft Edge	102	271	37.6
	Firefox	51	271	18.8
	Opera	7	271	2.9
	Safari	3	271	1.1
Online dictionaries/ glossaries		264	287	92.0
	Oxford English Dictionary	47	264	17.8
	Aryanpour (E to P & P to E)	44	264	16.7
	Cambridge Dictionary	43	264	16.2
	LingvoSoft Online (E to P & P to E)	38	264	14.4
	Google Dictionary	31	264	11.7
	Merriam-Webster	28	264	10.6
	Urban Dictionary	17	264	6.4
	Dictionary.com	16	264	6.0
Online encyclopedia		103	287	35.9
	Encyclopedia Britannica Online	31	103	30.1
	Encyclopædia Iranica	18	103	17.5
	Bartleby	11	103	10.6
	Infoplease	9	103	8.7
	Columbia Encyclopedia	22	103	21.3
	Questia	10	103	9.7
	Other	2	103	1.9
Total activity employment		914	1148	79.6

Marketing and Work Procurement Activities

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In order to support marketing and work procurement activities, 28% participants used online translation marketplaces for marketing and/or work procurement. Transnet.ir, IranTranslate.com, and Tarjomebazar.com were the most popular Iranian online marketplaces (they were used by 23%, 22%, and 17% of participants respectively). Participants were asked whether they had their own web site to promote their translation services. A small number of Iranian freelance translators (35%) employed Internet forums of whom almost half of them (55%) used business networks, such as LinkedIn, and 28% employed social networks. A very small number (16%) of the participants were used the rest of the Internet forums, including blogs (11%), social bookmarking (3%), and products/services review (2%). According to the results, only 15% of the participants had their own website to promote their translation services (see Table 2).

Table 2. Marketing and Work Procurement Activities.

	Types	Frequency	Total	Percent
Internet forums		99	287	34.5
	Business networks	55	99	55.5
	Social networks	28	99	28.3
	Blogs	11	99	11.1
	Social bookmarking	3	99	3.0
	Products/services review	2	99	2.0
Online translation marketplaces		81	287	28.2
	Transnet.com	19	81	23.4
	IranTranslate.com	18	81	22.2
	Tarjomebazar.com	14	81	17.3
	TranslatorsCafe.com	11	81	13.6
	Proz.com	10	81	12.3
	Irantypist.com	9	81	11.1
Participants own website to promote their translation services		43	287	15.0
Total activity employment		223	861	26.0

Communication Activities

As Table 3 indicated, Electronic mail was made use of by approximately all freelance translators (96%) of which Yahoo! Mail (51%) was the most used type, followed by Gmail (45%). Only %6 of the participants used other types of electronic mail services, such as AOL Mail and Outlook Mail. 82% of the freelance translators participated in instant messaging programs to support communication activities. Among available instant messaging programs in Iran, Telegram was the most popular type and used by 94% of the participants. iMessage, as other available type, was used by only 4% of the participants in the sample. Video chat which considered another form of communication employed by 40% of the participants. Other forms of communication used by participants were as follows: discussion mailing list (21%), talkers (16%), Internet Relay Chat (IRC) (9%), File Transfer Protocol (FTP) (7%), and Multi-User Dungeon (MUDs) (5%).

Table 3. Communication Activities.

	Types	**Frequency**	**Total**	**Percent**
Email		276	287	96.1
	Yahoo! Mail	143	276	51.8
	Gmail	125	276	45.3

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	AOL Mail	6	276	2.1
	Outlook Mail	2	276	.7
Instant messaging		235	287	81.8
	Telegram	221	235	94.0
	iMessage	9	235	3.8
Video chat		116	287	40.4
Discussion mailing lists		59	287	20.5
Talkers		46	287	16.0
IRC (Internet Relay Chat)		26	287	9.0
FTP (File Transfer Protocol)		21	287	7.3
MUDs (Multi-User Dungeon)		13	287	4.5
Total activity employment		792	2296	34.5

C. *Iranian Freelance Translators' Perceptions of ICT*

Along with questions about participants' usage of ICT tools, they were asked to express their opinions about the role of ICT in their work. In general, participants agreed with the significant role of ICT in translation activities, including information search and retrieval activities, marketing and work procurement activities, and communication activities, and had positive perceptions of different dimensions of ICT in their work. Almost all participants believed that using ICT was easier than traditional methods, such as conventional postal systems and paper dictionaries; they also found that ICT plays the key role in increasing translator's productivity and efficiency. A high proportion agreed that ICT facilitates the process of translation for them to translate with more speed, and enabled them to produce higher quality translations in a shorter time with lower price. Furthermore, a great majority of the participants claimed that using ICT helped them to become more competitive in today's market.

D. *Discussion*

The most important finding derived from the personal details of the participants was the way Iranian freelance translators acquired their IT skills. In other words, "self-taught" method was applied to improve their IT skills. This finding can be discussed from two different points of view: the first view implies the interest of the participants in this method of acquiring which, in turn, reflects the intelligence and ability as well as economic thinking of the freelance translators. From the opposite view, this alludes to the high cost of IT classes which causes Iranian freelancers to choose self-taught method.

The reason why the participants employed Internet search engines, such as Google and Yahoo!, and web browsers, namely Google Chrome and Internet Explorer, to support information search and retrieval activities was not only the popularity of these software applications in Iran but also the easy access to various types of information. The preference of Iranian freelance translators for local online translation marketplaces, for example Transnet.ir, IranTranslate.com, and Tarjomebazar.com, was the high standards they came up to and the free use of them. In a sense, in order to become a member of such online market places, you need to participate in the proficiency test with a very small amount of money. This would be satisfactory that Iranian freelancers chose and trusted local online market places.

All Iranian freelancers were expected to have their own website. Having the personal website gives considerable advantages to them. This includes possibility of the comprehensive notification with attractive content, marketing with a very low price, and the availability of the translator for a wide range of applicants. Using Yahoo! Mail and Gmail, as two types of electronic mails alongside Telegram, the most popular instant messaging program, by

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Iranian freelance translators was predictable. This may be due to the restrictions that exist in Iran. It is sad to say, most of online facilities which used to support communication activities had not been employed by the majority of the participants, such as FTP and IRC. Maybe the only possible and the easiest way for translators, in Iran, to communicate, exchange information, and effectively reach a broad spectrum of people is through using these online facilities. In addition, these online facilities facilitate dialogue and cooperation among people. Therefore, it is expected that online facilities be taken more into account by Iranian freelancers.

Fortunately, as the study's findings demonstrated, the notion of ICT employment has been established among Iranian freelance translators. In other words, most Iranian freelance translators agreed with the significant role of ICT in translation which may refer to the fact that they are shifting their approaches towards employing modern methods and tools instead of traditional ones which leads to their productivity and efficiency. Furthermore, this shift can be a sign of the presence of technology in the translation industry in Iran.

V. Conclusion and Implication

The aim of this study was to investigate the status of ICT employment among Iranian freelance translator. With regard to uncontrolled growth of and a large number of software applications, both general-purpose and translation-specific, as well as competitiveness of this profession in terms of quality, speed and price in Iran, this investigation becomes more important than ever. This is because of the fact that more use of ICT can help translators to produce higher quality translations with a more cost-effective price in a shorter time, which leads to both the satisfaction of clients and competitiveness of translators in domestic market. Unfortunately, as the results indicated, general-purpose software applications were the most employed software among Iranian freelance translators to support a wide range of activities included in the freelance translator's workflow, such as communication and information search and retrieval. By contrast, limited employment of special-purpose software was reported, such as business networks and social bookmarking. In addition, the usage of such software was limited to freelance translator-specific activities, such as marketing and work procurement. Whilst this study offers some significant insights into the employment of ICT by Iranian freelancers, there is still a need for further studies to explore the usage of other technological tools by Iranian freelance translators, such as CAT tools. As a result, the next phase of the research project aims at probing the employment of CAT tools by Iranian freelancers.

According to the findings of this study, some important pedagogical implications can be recognized for those responsible for the spread of ICT knowledge via translation, for those responsible for training translators, for both translation students and trainee translators, for novice freelance translators, and for those who have invested in the translation sector. These pedagogical implications are discussed below.

Translation courses held in Iran, including undergraduate and postgraduate degrees, and workshops, have focused more on theoretical and linguistic issues of translation. In today's world, translation is in need for not only theoretical and linguistic issues but also the application of pedagogical technology tools. Furthermore, qualified professors in IT are scarce and often not employed in this area. Hence, it is first recommended that those responsible for the spread of ICT knowledge via translation provide IT developers with all modern hardware and software facilities in order to support them; and second, supplying universities with ICT laboratories and study areas, and equipping them with PC workstations and the most recent version of software applications. Moreover, an increase in the number of qualified ICT professors in the field is a need that should be considered. Giving translation professors the opportunity to attend training courses at international universities is a possible option.

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It is expected that those responsible for training translators, such as translation universities and translator training institutions, be the pioneers of this critical issue and pay attention to ICT tools to the extent that graduates, who are interested to work as freelancers, satisfy the needs of today's market. For example, Iranian translation universities consider some ICT related courses as compulsory courses, and translator training institutions develop programs in consultation with professional bodies.

Besides, translation students, trainee translators and novice freelance translators are advised to start with general-purpose software applications, for instance online encyclopedias and online translation marketplaces, and learn how to work with them. When they become more skilled, it is time to use special-purpose software, for example FTP and IRC. Attending seminars and workshops held by skilled translators and trained professors help them to embrace technological changes. In another words, if they want to fulfil the needs of today's market, they should keep their knowledge of working with ICT tools up-to date.

Finally, freelance translators who have acquired the knowledge and skills of using ICT need support and employment over those with no skills and knowledge. Thus, the suggestion for those who have invested in the translation sector; namely, translation companies and publishing companies, is to employ and collaborate with qualified freelance translators on translation projects.

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AUTHOR'S PROFILE

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