

**An-Najah National University**

**Faculty of Graduate Studies**

**Problems of Translating English Cell Phone Jargon  
into Arabic**

**By**

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**This Thesis is Submitted in Partial Fulfillment of the Requirements for The  
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**2016**

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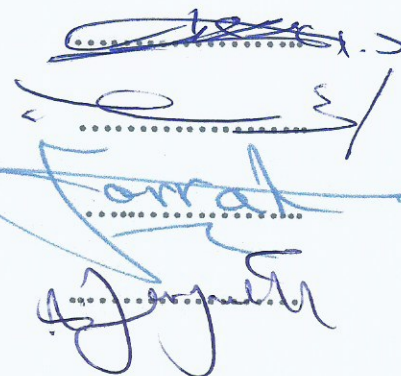
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Dedication

**To Dad, Mom, Brothers, and My Husband**

## Acknowledgment

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## الإقرار

أنا الموقعة أدناه، مقدمة الرسالة التي تحمل العنوان:

## Problems of Translating English Cell Phone

### Jargon into Arabic

مشاكل ترجمة تكنولوجيا الاتصالات: مصطلحات الهاتف الخليوي من اللغة الانجليزية  
إلى اللغة العربية

أقر بأن ما اشتملت عليه هذه الرسالة إنما وه نتاج جهدي الخاص، باستثناء ما تمت الإشارة إليه  
حيثما ورد، وأن هذه الرسالة ككل، أو أي جزء منها لم يقدم من قبل لنيل أية درجة علمية أو بحث  
علمي أو بحثي لدى أية مؤسسة تعليمية أو بحثية أخرى.

### Declaration

The work provided in this thesis, unless otherwise referenced, is the  
researcher's own work, and has not been submitted elsewhere for any other  
degree or qualification.

Student's name:

اسم الطالبة: سجي هزاع عبد الحفيظ

Signature:



التوقيع:

Date:

7/9/2016

التاريخ:

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## Abbreviations

SL: source language

TL: target language

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**Abstract**

The study aims at investigating the problems of translating English cell phone terms into Arabic as well as the strategies used in translating such terms. This study is based on a questionnaire which includes thirty cell phone terms collected from different websites presenting cell phone terminology. The terms were distributed to students at An Najah National University. The population in this study consists of two groups: Group 1 included fifty-seven computer and telecommunication engineering students who had finished around 120 credit hours or above with a GPA of 3.00 or more; Group 2 consisted of forty-five or above with a GPA of 3.00 or more. The researcher describes and analyzes the translations by study subjects to examine the problems that face them. Then, these translated terms are evaluated by seven experts, who work in the field of computer and telecommunication technology, to establish a suggested translation of each term.

The analysis of subjects' translations revealed that the study subjects faced many problems in giving the appropriate translation for each term. These problems are the use of literal translation, the wider use of Arabicization, a failure to capture the function of cell phone terms, the subjects' lack of sufficient experience and practice in the translation of cell phone terms, and a lack of specialized English Arabic dictionaries to help in translation. To render the given cell phone terms from English to Arabic, the subjects used different translation strategies, which are: literal translation, Arabicization, omission, paraphrase, functional equivalence, and translation by a more general word (generalization).

## Chapter One

### Introduction and Main Concepts

#### **1.1. Introduction**

Since the spread of technology, technical translation has been in high demand. The term technical translation refers to translating texts in the fields of engineering, computer sciences, telecommunication devices, law, medicine, etc. The number of technical terms in different domains especially related to technology and telecommunication changes daily. However, one of the most widespread modern technical products is cell phone devices and their related applications. Therefore, the technical text should be translated by professionals in the required subject to reach to an accurate translation.

Technical texts are those service texts that are particularly concerned with the natural sciences and technology (Pinchuck 1977). According to Newmark (1988, p.151) “Technical translation is one part of specialized translation; it is primarily distinguished from other forms of translation by terminology, although terminology usually only makes up about 5-10% of a text”. Sofer (1999 as cited in Forutanian 2008) mentioned that the text which consists of specialist terms in specific field called technical.

Advancement in telecommunications technology keep on expanding market openings around the world, expanding customer's interest for

administration situated telecom firms that offer online assistive technology and improved technical documentation in universal languages.

Therefore, telecommunications companies should precisely address customer issues through easily referenced technical translations intended to adequately communicate with a foreign language people. Accurate translation and localization of telecom products and user manuals help to set up a foreign consumer base, through accommodating its linguistic needs. Besides that, with development cell phones and telecommunication technology to contact clients in new and gainful ways, so localizing products for worldwide people is turning into a necessity.

For those reasons, it is important for telecom experts to make user manuals, and terms in different languages to make them to accessible to all foreign readers.

Also, because of the invention of the internet, together with the new technological developments in communication and digital materials, there has been an increase in technology transfer exchanges between nations (Zakhir, 2008), which has led translators to look for strategies to translate new terms related to technology constantly.

Although Arabic enjoys a high status in the Arab World, some Arabs tend to shy away from using Arabic terms because of their thinking if one uses foreign terms becomes part of the elite. This attitude certainly contributes to the shortage of terminology thus preventing new Arabic terms from taking root. O'Hagan (1996) mentioned that non-English speakers tend to

learn English as a second language to bridge the language gap. Unfortunately, technical translators from English into Arabic, especially in the area of cell phone term translation, have not been able to overcome the huge amount of terminologies given to technical inventions.

In this regard, Soualmia (2010) pointed that there is a reasonable deficiency in Arabic terminology which covers the field of technology, so translators should consider this problem first.

Moreover, Esmail Seiny (1985) mentioned that as stated in Krollman (1978) terminology is responsible for 40 to 60% of the technical translator's errors, and it takes up to 50% of his precious time to set the appropriate terms.

Yowell and Lataiwish (2000) pointed out that terminology is considered to have an absolutely crucial part in English Arabic translation. Nowadays, the Arab world is witnessing the important process of transferring newly coined western terms.

When cell phones are developed in western countries and extended to Arabic countries, cell phones are carried with their new terms that may have no equivalents in Arabic; for that reason, linguistic issues related to language development must be considered.

Translators, in the beginning of the practice, look for translations of cell phone terms in bilingual dictionaries if they exist. Study subjects in the thesis have started to examine the utility and practicality of bilingual

dictionaries and the need of having specialized dictionaries for cell phone jargon.

To illuminate, translators are supposed to be unable to find the appropriate translations in such dictionaries due to many reasons: no equivalence is cited for some terms, lack of circulation and consensus on one translation is missing.

In addition, unreasonable items in telecom translation may come about because of the translator's lack of knowledge in the field of cell phone terminology. Moreover, there is a lack of specialized bilingual dictionaries as a conceivable source of knowledge.

According to Geoff-Hart website professionals are subject-matter experts, and they comprehend subject's jargon. Furthermore, they know the appropriate jargon and usage patterns to communicate effectively with various groups of audiences in the target language. According to that, the researcher believes that cell phone terms need the sufficient knowledge in order to provide suggestions for them in Arabic.

Translators will choose from among a number of strategies, such as; literal translation, Arabicization and functional equivalence.

## **1.2. Purpose of the Study**

This study aims to examine the problems of translating English cell phone jargon into Arabic. In order to do so, the researcher analyzes data taking into consideration the way the study subjects translate each term depending

on different strategies they use to find the problems that subjects face while translating. The rapid progression of cell phone technology forced the user to learn the whole language to be able to understand even the simplest cell phone terms.

The researcher focuses mainly on translating thirty specialized terms for the benefit of a non-specialized audience to help them access the field of technology easily.

### **1.3. Questions of the Study**

This study attempts to find answers to the following questions:

- What are the problems which study subjects encounter in translating cell phone terms?
- What are the reasons behind study subjects confusion or inability to translate cell phone terms?
- What translation strategies are used to render cell phone terms into Arabic?

### **1.4. Statement of Research Problem**

It has been noticed that almost all of the cell phone terms used in daily life are borrowed mainly from English. They are widely used to the extent that it is impossible to have a discussion about cell phones without using such borrowed terms. Farghal and Shunnaq (1999:210) state that “the major problem facing translators at present is terminology standardization and dissemination in the sphere of science and technology”.

Many English cell phone terms are being used and taught as they are in their original form without translating them into Arabic because there is no accurate equivalent for them in Arabic. Furthermore, these terms are being considered as Arabic terms because of their circulation in Arabic. The main problems connected with the inability of students to give translation for the cell phone terms is due to semantic inexpertness in the field of information technology in general and cell phone jargon in particular, and to a lack of existing technological dictionaries related to cell phone jargon.

Many members of a non-specialized audience will neither use such terms nor understand the meaning of them. Thus, this will affect the marketing of cell phones because the layman will not understand the function of newly invented techniques featured in the latest cell phones.

### **1.5. Significance of the Study**

Although we can easily notice the extensive use of English terminology of cell phones in our lives either as oral or written technological documents, the problems of translating English cell phone jargon into Arabic and finding equivalents for them have not been tackled because still there is no user manual for the new versions of cell phones in Arabic.

This study is significant for scholars, translators, cell phone experts, writers of cell phone advertisement and brochures, linguists and laymen who are interested in such inventions but lack English language knowledge. The reason is that it reflects the range of borrowed word usage regarding cell phone neologisms.

The significance of this study for technical translators can hardly be doubted in light of the increasing interest of ordinary people in using cell phones and being able to interact by using such terms with other qualified people.

## **1.6. Main Concepts: Arabcization, Naturalization and Neologisms**

Technical terms are described as one of the most difficult terms to translate especially from English into Arabic because English is the language that gives the terms to new inventions. Thus, it is believed that they are better understood in their original language. However, the issue gets more complicated when the target readers are not as equally qualified as the writers of the source text. Therefore, this section explains three concepts related to the translation of cell phone jargon. Arabcization and naturalization as strategies are often used by the translators but they weaken the Arabic language. Neologism is an important concept related to cell phones because their terms are new as are their inventions.

### **1.6.1. Arabcization**

The term Arabcization has been explained through many definitions based on varying views of authors. Although the term refers to broadly definable concepts, it is a ubiquitous term. On the one hand, Arabcization is the extensive use of Arabic language in all domains of life: political, social, and cultural i.e., it refers to the promotion of Arabic as a medium of interaction in public and private sectors (Grandguillauma 2004 and others).

On the other hand, Sayadi (1985) defines Arabcization as a means of lexical expansion which includes the coining of new terms, either from existing words, or through translation of foreign terms.

According to Al Abed Al Haq (1996) Arabcization has a wide sense which means “to transfer into Arabic” but also includes a narrow sense of the term that involves, as Khulusi (1985) points out, merely transferring a foreign term according to the Arabic linguistic system.

Thus, Arabcization is one of the strategies used to translate technical terms by making little changes in phonetics and morphology to the foreign term. It consists of writing the English technical terms using the Arabic alphabet with no variation to their pronunciation in the Arabic language.

Often translators find the Arabic equivalent for the English term, but they tend to adopt the English version or the Arabicized one. The reason is that they find the translated form to be unfamiliar to the target readers which threatens comprehensibility. Therefore, the problem here is not only the deficiency or the shortage of use of these terms but also the low awareness of them. These terms should be used on a regular basis by policy makers, who need to circulate themselves with those terms and stay updated by getting in touch with specialists in other Arab countries.

The main problem with Arabcization is that it does not provide the target readers with the meaning of the word in Arabic, as well Arabicized terms are not pure Arabic; they are just borrowed and shaped using Arabic alphabets. Using Arabcization neither enriches Arabic vocabulary nor

serves the Arabic language. In fact, this means that Arab translators are unable to create new Arabic terms and prefer the easier way to translate technical terms, thus, it is an offense to the Arabic language.

In regard to this, Ghazzala (1995) argued that this method should be avoided except in the case where translators could not find an equivalent for the term in Arabic.

### **1.6.2. Naturalization**

Soualmia summarized in her thesis the main points of Ghazzala's (1995) ideas about naturalization "naturalization is the attempt to adopt English terms to the morphology of Arabic word structure and can be seen as the evolution of the transcription method. This method consists of adding new affixes to the foreign terms leaving their roots unchanged. The added affixes are used to adjust the terms into the Arabic morphology as is the case with verbs, nouns, gender, adjectives and adverbs.

For example:

Mobile → موبايل

Mobiles (plural) → موبايلات

My mobile → موبايلي

Her mobile → موبايلها

Technology → تكنولوجيا

Technological (adj.) → تكنولوجي

"Naturalization is considered by Ghazzala (1995) as a better strategy than Arabcization, even though it is still not suitable; as it is not pure Arabic, the basic terms remain English even if they are naturalized. This strategy does

not take meaning into consideration. To avoid this problem, Ghazzala (1995) suggested another strategy that, in his opinion, would fulfill the appropriate translation of technical and scientific terms; he simply suggested to translate, i.e., taking the technical English terms and transferring them using pure Arabic vocabulary.” For example:

Mobile → هاتف خلوي

Technology → تقنية

According to Baker (1987) Arabicization and naturalization have not received acceptance from the language purists because they threaten the identity of Arabic. Thus, translators are likely to come across a situation where they need to be more creative by following certain methods that may ensure high quality and smoothness when translating scientific terms. In an attempt to get over this obstacle, Ghazzala (1995) suggested that coinage is the best strategy for translating technical terms. As for Baker (1987); coining new terms is the only way that ensures the creation of new specialized glossaries for the Arabic language. ” (2010:28:29)

### 1.6.3. Neologisms

Neologisms have been given a lot of different definitions. In dictionaries, neologism is generally defined as ‘a new word or a new meaning for an established word’. To be more specific, Newmark defines neologisms as “newly come lexical or existing units that acquire a new sense” (**Newmark 1988: 140**). According to Oxford Dictionary of English (**2003: 1179**) a

neologism is “a newly coined word or expression that may be in the process of entering common use, but has not yet been accepted into mainstream language.”

This thesis definition is as follows: a neologism is a word, a term, or a phrase that has been recently created (or coined) often to apply to new concepts, to synthesize pre-existing concepts, or to make older terminology sound more contemporary. Neologisms are especially useful in denominating inventions, new phenomena, or old ideas that have taken on a new cultural context.

Neologisms aim at giving new terms in the Arabic language by translating the meaning. According to **Baker (1987)** this method enjoys much acceptance. For example:

Android → نظام تشغيل

MP3 Player → مشغل موسيقى

Neologisms stand for innovation in every language. New words are created every day and their number in English is growing fast. Thus, translators should exert huge efforts to carry new technical terms into Arabic by any way available, yet these strategies should not harm the Arabic language. Translators should take into consideration the differences in the linguistic system between English and Arabic, since they need to create terms that are linguistically appropriate to Arabic.

## 1.7. Thesis Structure

This Thesis is divided into five main chapters. Chapter I includes the introduction to the Thesis and some main concepts. This chapter gives an outline of what the thesis is going to discuss focusing on defining technical translation and seeing how technical terms differ from other terms. Moreover, this chapter defines Arabicization, neologism and naturalization as the main concepts related to cell phone terms.

**Chapter Two** includes a review of related literature to technical translation and to the technological field, in particular. The reviewed work includes technical translation challenges and problems associated with the translation of technical terms and technological terms.

**Chapter Three** introduces the description of the methodology used in the thesis. It consists of the study population and provides significant details of study subjects. It also highlights on methods used and resources of collecting data.

**Chapter Four** describes and analyzes the translation of each group of study subjects. The discussion covers the main problems that are faced by the study subjects, the reasons for their confusion or for their inability to translate cell phone terms, and the strategies they used. Besides, it includes the possible translation of each term by experts.

**Chapter Five** is devoted to the conclusions of the study in addition to making relevant recommendations.

## Chapter Two

### Review of Related Literature of Technical Translation

#### **2.1. Introduction**

In technical translation, not many researchers or scholars concentrate on technological texts. Such texts are problematic for translators rendering Arabic translations of English originals, because of the accelerated growth in the fields of technology and telecommunication. Thus Arab translation bodies need to constantly monitor and respond to these changes, which may not be sufficiently rapid for translators working in this area. The majority of the available literature describes the main features of technical and scientific translation in general. Therefore, the researcher believes that the topic selected for this thesis is an immature type field, because there are still no established strategies for dealing with cell phone jargon translation into Arabic. This is a notable obstacle that translators encounter when providing Arabic translations of English cell phone terminology. To clarify, different studies have illustrated the problems and challenges of translating technical terms in general and technological and computer terms in particular. The literature reviewed also sheds light on technical translation in general and features of technical terms because this thesis is related to this kind of translation.

#### **2.2. Technical Translation**

The possession and communication of scientific and technical knowledge through translation has played a pivotal role in the development of human

civilization as well as in the advancement of science and technology. Thus, dissemination of scientific and technical knowledge is growing in importance especially since mankind is now experiencing an ‘information age’ (Tabeaux, 1997). Indeed, Scott Montgomery (2000) (*cited in* Byrne 2009) proposed that as English is the universal second language especially with regard to the fields of science and technology, the demand for accurate technical translation has never been greater.

Krien-Kuhle (2005: XVIII) believes that “scientific and technical translation has always played a pivotal role in disseminating knowledge.” The author also states that the current dominance of science and technology makes this “the main area of translation work.”

Similarly, Montgomery (2000) emphasizes the key role that scientific and technical translation has played in the transference of knowledge throughout history. In fact, modern science and technology in many instances started as translation. Associated with the recent accelerated growth in the fields of science and technology, technical translation has likewise seen a rapid growth in demand.

Technical translation encompasses the translation of specialized texts in diverse fields from science and technology to economics and medicine (Williams and Chesterman, 2002). These researchers further attest that such specialized texts require not only high level subject knowledge, but also mastery of the relevant terminology.

Technical translation is unlike other forms of translation using specialized technical terms, as use of such terms is challenging even for users of the source language. There is a direct correlation between the number of technical terms in the source text and the number of problems experience translating that text. However, if a translator possess knowledge of the specific field in the source text, the resulting target language text will be more appropriate and accurate.

As for the term ‘technical’ Dickins, Hervey and Higgins (2002:184) suggest that it is “not confined to natural science and technology.” Furthermore, they claim that all specialist fields possess their own “technical terms” and “genre-marking characteristics.” This thesis defines ‘technical’ as within the fields of science and technology.

### **2.3. Translator Expertise**

According to Newmark (1988), technical translators must practice widely in a range of technologies, for instance computer applications. They must understand the text and choose suitable vocabulary. Translation is integral to service industry expansion. Thus, translation is impacting more effectively and is becoming globalized. (**Newmark 2003**)

**Hann (1992:7)** states that "the job of a technical translator is further aggravated by the source text, a situation which almost never arises in general translation". Therefore, he believes that a poor translation leads to a dissatisfied reader. In overcoming such source text challenges, the

translator must be confident his message will be understood or poor translations might result in reader dissatisfaction.

A good technical translator, as **Pinchuck (1977)** points out, must have possess various characteristics: sound general and technical knowledge; good language abilities; and the ability to express his/her ideas in the target language.

Klaus Schubert (as cited *in* Byrne 2009) argues that within the context of traditional translation studies, it is impossible for technical translation as a professional, communicative activity to be comprehensively described and modeled, owing to its complexity and interdisciplinary nature. Furthermore, he describes how a range of controlling factors influence both the work of translators and the materials, resources and strategies they employ.

Thus, technical translators must have knowledge of the subject matter including the specialized terminology associated with the technical field concerned. They must also possess a thorough understanding of both the source and target languages. Thus, with such a skill set, translators will be able to render appropriate technical translations.

## **2.4. Features of Technical Terms**

Technical texts are different from literary texts which feature figures of speech and metaphorical idiomatic lexis. Scientific and technical texts, on the other hand, feature clear specific vocabulary and are read by audiences

neither for fun nor for pleasure. In general their specific purpose is to convey information and enable the reader to successfully complete an intended behavior or perform his/her work in a specific way (Tekir 2011).

Gould's (2008) description of the role of a technical writer clarifies what technical writing is and identifies its intra-disciplinary characteristics. Gould states that technical writers must remain objective and factual so as to write dispassionately about facts and objects, thereby relating useful, relevant, reliable information that is comprehensible to readers. In practical terms, their language should feature simple direct vocabulary with minimal nonfunctional descriptive adjectives, and active verbs rather than passive to avoid reader confusion. Any writing that requires familiarity with (or willingness to learn about) a technical field would be considered technical writing. Writing about museum conservation is technical writing as much as writing user manuals for a software product or a troubleshooting guide for a broken tractor. Technical writing is a useful communication tool whenever information of a technical nature must be transmitted.

When translating technical texts, translators must overcome the hurdles of specialized vocabulary or terminology. The Oxford Advanced Learner's Dictionary defines terminology as the set of technical words or expressions used in a particular subject as differentiated from everyday meanings. Unless the translators are experts in the field and are familiar with the subject matter, they may misinterpret such terminology. On the other hand, terminology in the source culture can be different from the target one.

Thus, translators should read parallel texts and familiarize themselves with how the specific terminology is used to arrive at the correct correspondence (Tekir 2011).

Gould defines what a technical writer must do when he states that; “Most successful technical writers must necessarily become eternal students” (Gould, 2008: 21). It is the case that since writers and translators of technical texts are highly skilled experts, they can be considered to be similar. They need to review material and study the latest research to keep up to date in their area of expertise. Consequently, they are aware of the introduction of new words and phrases related to their areas of science and technology.

## **2.5. Challenges of Translating Technical and Technological Terms**

Modern translation is practiced following a plan using predefined sequential stages, each fulfilled by certain participants (Tekir 2011). Byrne puts forth that the parties involved in technical translation are:

- Document Initiator
- Writer/text producer
- Translation Initiator
- Translator
- User

(Byrne, 2006: 12)

Once a translator has been assigned a task, a number of questions must be asked and answers negotiated with the commissioner. For example, a primary question is related to determination of the text type of the source text. Once this has been negotiated, it is essential to determine the order of importance of the participants at the end of the translation; the author of the source text, or the reader of the target text. In addition to these key questions, it is also essential to clarify the skopos of the translated text. In other words, to specify whom this text will serve and what its objectives will be.

The most problematic constraints in technical translation are connected with terminology, subject matter, and translators' knowledge of the technical field being translated.

As for overcoming the issue of non-equivalence, Gopferich (2008) asserts it is necessary to exceed the bounds of traditional methodology of comparing scientific and technical translation and to operate in a broader interdisciplinary context.

It is important for technical translators to have experience in dealing with the technical terms that are encountered when translating technical texts. In this regard, **Sanchez (2010)** suggests that practical training in technical translation might benefit translators as it would empower them to cope with the problems they will encounter.

Moreover, it is essential to realize that though abbreviations and acronyms are common in English technical texts, they are scarcely seen in similar

Arabic texts, for example; GB, SIM and 4G. Cronin (2003:152) argues that “Alongside specialized terminology and numbers, acronyms and abbreviations are among the most attention grabbing and potentially intimidating aspects of a technical text for translators.” **Kingscott (2002:247)** states “it has been estimated that scientific and technical translation now accounts for some 90% of global translation output”.

**Al-Hattāb (1999)** enumerates some difficulties in giving Arabic equivalents for scientific and technical foreign terms. They are:

- Rapid technological and scientific developments worldwide.
- The huge number of new scientific terms resulting from large numbers of scientific branches and fields.
- In the Arab world, there is a lack of co-operation regarding the production and unification of Arabic equivalents for scientific terms.
- Arabic is not used in the science and computer departments of certain universities in the Arab world; either English or French is the language of choice.

As a consequence, Arab experts and students alike prefer to use either English or French instead of Arabic terms. A significant number of English technical terms entered languages such as Arabic but are still awaiting equivalents. Examples include the terms; selfie and play station. Finding equivalents for new terms is sometimes problematic when translating into another language. Selfie is a case in point. This term first appeared in the

Oxford Dictionary in 2013. It means “A photograph that one has taken of oneself, typically one taken with a smart phone or webcam and uploaded to a social media website”.

To date, there is no equivalent for this term in other languages including Arabic. In such cases, paraphrase is the preferred method of translation, though this necessarily depends upon the translator’s understanding of the subject matter. (See [www.oxforddictionaries.com](http://www.oxforddictionaries.com))

**Stolze** (*cited in Byrne 2009*) emphasizes that terminology that has not been standardized can cause problems. In such cases, various cultural factors must be considered to avoid intercultural incongruity which can result if the concept is designated differently in different cultures. Even though as Stolze notes “terminology is based on exact definitions” in the sciences and that “every term has its place within a hierarchical system,” without standardization difficulties might be encountered. Similarly, **David Wilmsen and Riham Youssef** (*cited in Byrne 2009*) attest to such problems related to terminology, even within the same language. They note that technical terminology displays significant regional variation even though it should, in theory, be standardized by linguistic constraints and by the rigor of the scientific and technical lexis. Such a position challenges the commonly held belief that terminology will be relatively straight-forward to deal as it is viewed as the one constant in the equation.

Wilmsen and Youssef’s paper also focusses on the challenges faced by scientists who are not native speakers of English, who should they wish to

succeed in their chosen fields are compelled to learn the international language of science. The authors assert that this accounts for the reversal of policy with respect to Arabicization in science and technology. Montgomery that the prevalence of English as a lingua franca, does not obviate the need for scientists to work in their own languages as well, despite an overwhelming pressure to work solely in English.

Glover and Knight 1998 (*cited in* Daraghmah , Shehab and Ashqar 2014) identified problems associated with technical term glossaries as well as a scarcity of bilingual technical dictionaries. They suggest that such issues might be overcome by using phonological translation, or in other words, ‘transliteration’. Thus, they believe that “it is not trivial to write an algorithm [for] turning English letters sequences into Arabic letter sequences” (p. 34).

Similarly, Huassanawi (2009) (*cited in* Daraghmah , Shehab and Ashqar 2014) clarifies that the Arabic semantic gap is caused by a lack of specialized bilingual dictionaries, which would otherwise enable translators to cope with technological leaps. Huassanawi (*ibid.*) notes that currently, translation relies primarily upon transliteration and borrowing to overcome the aforementioned semantic issues with Arabic translations. In his attempts to find a solution, Huassanawi (*ibid.*) suggests a model for scientific translation in which linguistic elements, such as; the grammar, lexicon, and field related registers of both languages are taken care into consideration. Correspondences of structural and lexical items are selected

and assigned functions in the sorting process. In addition to this, compensatory strategies are defined which yield a very close representation. Though the output text requires particular textualization and normalization to yield a more accurate Arabic text.

Despite the advances, Huassanawi concedes that his model is incomplete and requires human database input as well as refinement of the output text. Ultimately, Huassanawi recommends Arabicization as the preferred process (ibid.).

Further complications arise when the producer of the source text (ST) may not know the specialized technical terms being used, or only have a partial or incomplete command of the lexis. Thus, ST problems add to the challenges technical translators face with respect to terminology in both the source language SL, and target language TL. Hervey and Higgins (1992: 165) state that “in terms of subject matter and interpretation, the typical technical ST is not easily accessible to most native SL speakers, let alone to those who have learnt the SL as a foreign language.” When undertaking such translations, the terminology of both the SL and the TL must be taken into consideration by the translator.

Mason (2001) notices there are differences between both of function of the source text and the translated text, noting that environmental constraints on the construction of the translated text are independent of such constraints on the source text. Thus, when translators are aware of the function of the text, an improved decision making process will result. Newman (1994)

**(cited in Daraghmah , Shehab and Ashqar 2014)** notes that it is the translator's responsibility to specify the priority of text consideration during the translation process; this ought to lead to the translator towards functional equivalence.

Daraghmah , Shehab and Ashqar (2014) state that specialized text readers are primarily interested in how translated terms function. In other words, the translation is successful provided that the intended information has been successfully communicated.

As for problems related to the translation of scientific terms, Soualmia states that to produce high quality translation using purely Arabic vocabulary, an appropriate method must be adopted. Consequently, a number of pedagogical implications were proposed as a starting point towards resolving the problem of enabling students to cope when translating scientific terminology (2010).

In a study conducted by Suwais at Yarmouk University to investigate the problems as well as the strategies used in technological term translation, a questionnaire was distributed, consisting of 67 IT terms to forth year IT and MA translation students. Her findings indicate that the study participants experienced problems such as mistranslating terms or failing to provide any translation whatsoever. As for the strategies adopted, she found that paraphrase, transliteration, loan translation and borrowing were the most prevalent. (2008)

Similarly, Homedian was interested in investigating the problematic translation of certain English computer terms into Arabic. In a similar task-oriented study, a collection of some of the most problematic terms were distributed to mixed cohort of MA translation students, and third and fourth year computer science students at Yarmouk University. She found that MA translation students produced a higher level of accuracy in translation than their computer science counterparts. (2004)

Furthermore, Daraghmah , Shehab and Ashqar shed light on problems of equivalence: the translation into Arabic of specialized technological texts for the benefit of a non-specialized audience that is not interested in the exact rendering of sophisticated terms. In such cases, strategies such as: amplification, diffusion, explication, divergence, substitution, and reduction provide a chance for the translator to provide the audience with simplified hints towards understanding. They also noted that, though infrequently used, transliterated equivalents enhanced target text usability. (2014)

Certain technical terms are not found in English-Arabic dictionaries which adds to translation problems. Despite the use of computer-aided translation tools and bilingual dictionaries, the problem still remains that the great majority of dictionaries and data sources for computer translation programs are not sufficiently specialized, and thus do not contain technical terms.

## 2.6. Strategies Used in Translation

Molina and Hurtada Albir stress the importance of translation techniques that are employed by the translator in micro-units. They assert that such techniques are generally applied by the translator in a functionalist context. They further describe how translation techniques are developed as “the result of a choice made by a translator (whose) validity will depend on various questions related to the context, the purpose of the translation, audience expectations etc.”(2002: 509). From this, it is clear that translation techniques ought to be evaluated within context since the context ultimately make the techniques meaningful. In sum, the translation techniques included in Molina and Hurtado Albir’s proposal are summarized:

- Adaptation. Replacing ST cultural elements with target culture elements.
- Amplification. Introducing details not formulated in the ST: information, explicative paraphrasing. Footnotes are a case in point. Amplification is in opposition to reduction.
- Borrowing. Taking a word or expression straight from another language. When there is no change, it is referred to as pure.
- Calque. Translating a foreign word or phrase literally; it can be lexical or structural.

- Compensation. Introducing ST elements of information or stylistic effect in a different position in the TT since it cannot be reflected in the same position as in the ST.
- Description. Replacing a term or expression with a description of its form and/or function.
- Discursive creation. Establishing a temporary equivalence that is totally unpredictable out of context.
- Established equivalent. Using a term or expression recognized as an equivalent in the TL, for example in dictionaries.
- Generalization. Using a more general or neutral term.
- Linguistic amplification. Adding linguistic elements: used in consecutive interpreting and dubbing.
- Linguistic compression. Synthesizing linguistic elements in the TT: used in simultaneous interpreting and in sub-titling.
- Literal translation. Translating a word or an expression word for word.
- Modulation. Changing the point of view, focus or cognitive category in relation to the ST; either lexically or structurally.
- Particularization. Using more precise or concrete terms.
- Reduction. Suppressing ST information item in the TT.
- Substitution. Changing linguistic elements for paralinguistic elements such or vice versa. Examples include intonation and gesture.
- Transposition. Changing grammatical categories.

- Variation. Changing linguistic or paralinguistic elements that affect aspects of linguistic variation: changes of textual tone, style, social dialect, geographical dialect. (Molina and Hurtado Albir, 2002: 509-10).

## Chapter Three

### Methodology

#### **3.1. Population of the Study**

The present study is based on two main groups of both genders. Fifty seven computer and telecommunication engineering students who had finished 120 credit hours or more with a GPA 3.00 or more; and the other group consisted of forty five M.A translation students who had completed 21 credit hours or more and who had maintained a GPA of 2.8 or more at An Najah National University. After that, the translated terms are evaluated by experts and professionals in the computer and telecommunication technology to get to a possible translation of each term. The researcher chose seven experts, who studied and work in the concerning field, to evaluate the translated terms according to the instructions of the researcher's supervisors. The experts and brief description of the reasons behind choosing them in this study are listed below.

Dr. Samer Arandi , who is teaching a mobile computing course is also an assistant professor in the Computer Engineering Department, and Assistant Dean of Engineering and IT faculty at An-Najah National University. In addition, Ahmad Abdellatif, who is a lecturer in computer science at King Fahd University of Petroleum and Minerals (KFUPM). He is a project manager of a Student Information System at KFUPM. He is also a senior software engineer in mobile development. Siraj Munir is an IT manager at Astra Industrial Group / IBSF. He is multi-skilled in IT Management with

excellent technical expertise. Another expert is Ahmad Sakhleh, who is a software engineer at Founder Therapy. He has been a software developer at Ericsson and at TELCOCELL. A further expert is Mohammed Barham, who is a software engineer at Cisco systems. He was also iOS software developer at EXALT Technologies Ltd. Another expert is Saleh Moqadi, who is a software engineer and technical team leader at Exalt Technologies. The final expert in this study is Amjad Abu Hassan, who is a software engineer at Gist Technologies. The researcher selected them based on their expertise in telecommunication and computer technology. Besides the professional suggestions, the researcher also used electronic cell phone manuals for the established translations of terms. (See appendixes 2 and 3)

### **3.2. The Sources of Data Collection**

The questionnaire was used to examine different cell phone terms identified by the researcher. Thirty cell phone terms used in the questionnaire consist of single words, compounds and abbreviations. All terms are related to cell phone jargon and chosen from different websites and manuals related to cell phone terminology either concerning iPhone, Android phones, or others. Some terms have established translations by official bodies in the subject field while others are waiting for translations. The terms used are chosen according to the level of difficulty approved by the experts in the subject field.

### **3.3. Instruments of the Study**

A questionnaire was carried out as a mean of collecting data for the purpose of analysis. The questionnaire was distributed to the population of the study to investigate the main problems and difficulties of translating English cell phone terms into Arabic. The researcher distributed the questionnaire by hand to Engineering students and M.A translation students at An Najah National University. Because of the selection of some names of students not all of them according to the standards and strategies of choosing them, this motivated them to answer and took the questionnaire seriously.

### **3.4. Translation test**

Moreover, a well designed questionnaire was created for this study. The questionnaire consists of thirty terms. These terms were chosen according to the level of difficulty approved by the experts in the subject field. The researcher's supervisor, Dr. Fayez Aql suggested having only thirty terms to be studied because he saw this is enough for the study.

The questionnaire was distributed to Engineering students by hand in their lectures in cooperation with their lecturers. They took around thirty to forty five minutes to give them to the researcher.

Because the researcher is M.A translation student, the process of distributing and collecting the questionnaires was not difficult. She knew

most of them, so she distributed them by hand and took it after fifteen to thirty minutes.

### **3.5. Validity of the test**

Validity and reliability of the test were ensured by two of experts in the study, Dr. Samer Arrandi and Inst. Ahmad Abdellatif. The thirty cell phone terms, which selected from different websites and user manuals concerning cell phone jargon, were accepted to be in the test as they are suitable for the levels of the students. Then, the translated terms by study subjects are evaluated by experts and professionals of the study in the computer and telecommunication technology to get to a possible translation of each term.

## Chapter Four

### Data Analysis and Discussion

#### 4.1. Introduction

This chapter focuses on analyzing errors and difficulties of study subjects' answers. For this purpose, a questionnaire was distributed as the main study test to examine the difficulties and problems involved in translating cell phone terms from English into Arabic and to find out the strategies that have been employed by study subjects in translating such cell phone terms. The questionnaire was distributed to the Engineering and MA translation students. The researcher distributed to MA translation students because she supposes that they are not qualified in this technical field and they should have good background knowledge about telecommunication technology. Furthermore, the researcher distributed to computer and telecommunication engineering students because the researcher supposes that despite of studying these terms, they will keep the terms as they are without translating since they know it in English and do not know how to translate them to Arabic.

Every thirty terms were analyzed and examined separately according to their own statistical results and these presented in the Table 1. These statistics were figured out from the responses given by all the subjects. To not be repetitive in the presentation of the results, the researcher believes that it would be more convenient to select some acceptable and unacceptable answers to be included in the discussion as examples. The

researcher believes that the selected responses are the most adequately representative and illustrative suggestions that reflect the main problem of translating each term. The presentation of the results and the discussion of the results focus on giving a real vision reflect the nature of the problems faced in the translation of each type of term. The researcher tries to find out the main causes of these problems and difficulties in both groups.

For a wider view of the level of difficulty involved in translating cell phone terms and with the aim of finding more accurate statistics, the researcher chose to involve in the statistics the cases of the cell phone terms that were left un-translated. This category is labeled as “Blank” in Table 1. Hence, table1 include six main columns with the headings listed below. Three columns are for the engineering students and the other three for MA translation students. The total of each three columns related to each group makes 100% that stands for and represents the total number of the each group. The main three columns refer to: The percentage of acceptable translations, the percentage of unacceptable translations, and the percentage of blank cases.

Students’ answers evaluated as acceptable or unacceptable according to professionals in the electronic and cell phone field. They are referred to compare and find the best suggestion translation for each term. Other acceptable translations given by the subjects are indicated as well. After that, the researcher highlights the strategies employed by students and professionals.

## **4.2. Part One: Translating Cell phone Terms**

### **4.2.1. Analysis of Errors and Challenges as Revealed of Students' Translations (MA translation students and Engineering students)**

The Table below illustrates the results of the subjects' answers. It shows that 32% of the MA translation students' answers were acceptable translations. Unacceptable translations represented 56%, and 12% were blank, which means that the subjects did not give any response. While the engineering students suggestions show that 31% were acceptable translations. Unacceptable translations constituted 49.5%, and 19.5% were left blank.

Unacceptable translations reflecting the main difficulties faced in these translations accounted for 56% and 49.5% respectively, which are a significant number in a field such as the telecommunication technology field.

Cell phone terms were selected from different websites related to cell phone jargon. Also, many of these terms are used frequently in our daily life.

**Table1: Comparison Percentage Results of the Translations of Cell Phone Terms (given by Students of two groups)**

<b>Cell Phone Terms</b>	<b>Acceptable Translation ( MA )</b>	<b>Acceptable Translation (Eng.)</b>	<b>Unacceptable Translation ( MA )</b>	<b>Unacceptable Translation (Eng.)</b>	<b>Blank ( MA )</b>	<b>Blank (Eng.)</b>
<b>Visual mechanical inspection</b>	53%	60%	19%	26%	28%	14%
<b>Tone mapping</b>	4.7%	3.5%	76.7%	66.6%	18.6%	29.9%
<b>Time lapse</b>	0%	14%	93%	65%	7%	21%
<b>Retina Display</b>	0%	4%	91%	70%	9%	26%
<b>HDR (High Dynamic Range)</b>	7%	7%	79%	72%	14%	21%
<b>NFC (Near Field Communication)</b>	70%	63%	14%	19%	16%	18%
<b>Touch ID</b>	4.7%	21%	83.7%	61%	11.6%	18%
<b>MicroSD</b>	35%	61.4%	58%	26.3%	7%	12.3%
<b>Notifications banner</b>	33%	37%	65%	45.5%	2%	17.5%
<b>Reboots</b>	2.3%	0%	95.4%	93%	2.3%	7%
<b>3G talk time</b>	14%	12%	74%	63%	12%	25%
<b>4G</b>	14%	22.8%	63%	52.7%	23%	24.5%
<b>Android</b>	81%	63%	19%	30%	0%	7%
<b>Air time</b>	9%	10.5%	70%	66.7%	21%	22.8%
<b>Hands-Free</b>	0%	0%	75%	88%	25%	12%
<b>MP3 Player</b>	33%	19%	67%	74%	0%	7%

<b>SIM</b>	74.7%	79%	23.3%	16%	%2.3	%5
<b>WAP</b>	6%	30%	88%	51%	7%	19%
<b>Call Hold</b>	81.4%	86%	9.3%	7%	9.3%	7%
<b>Call Divert</b>	74%	16%	14%	77%	12%	7%
<b>Call Restriction</b>	46.5%	42%	32.5%	49%	21%	9%
<b>Widget</b>	0%	7%	79%	72%	21%	21%
<b>Bluetooth</b>	93%	82.5%	0%	10.5%	7%	7%
<b>Stylus</b>	51%	26%	28%	18%	21%	56%
<b>LCD (Liquid Crystal Display)</b>	40%	45%	51%	35%	9%	19%
<b>Focus pixel</b>	0%	0%	74%	72%	26%	28%
<b>AMOLED Display</b>	5%	7%	79%	37%	16%	56%
<b>WiMax</b>	14%	11%	79%	47%	7%	42%
<b>QuickType Keyboard</b>	14%	5.3%	74%	75.4%	12%	19.3%
<b>Keypad Lock</b>	97%	%93	%0	%0	%3	%7

To explain what has been shown above, the thirty cell phone terms will be discussed in the order shown in the table, illustrating the definition of each term. These definitions were taken from different user manuals cited at the end of the thesis in the references. And also, the different kinds of problems linked to the translation of each one of them in the two groups will be discussed. The researcher has listed in the discussion only the most common translation not all of them.

### **Term 1 Visual mechanical inspection**

Visual mechanical inspection is a common method of quality control, data acquisition, and data analysis. Visual Inspection, used in maintenance of facilities, mean inspection of equipment and structures using either one or all of the human senses such as vision, hearing, touch and smell and/or any non-specialized inspection equipment.

This term was correctly rendered by 53% of MA translation students and 60% of engineering students. Along with the translation suggested by the professionals, الفحص الميكانيكي البصري, the following translations given by the participants were considered as acceptable translations:

- a) الفحص الميكانيكي البصري
- b) الفحص الميكانيكي المرئي
- c) تشخيص ميكانيكي مرئي

It was a problematic term for some students as 28% of MA translation students responses' were blank and 19% of them provided unacceptable

translations. 14% of engineering students responses' were blank and 26% of them provided an unacceptable translation. They translated wrongly as:

- a) آلة التوقع المرئي
- b) تصور ميكانيكي
- c) آلة تصور مرئية

Some of the subjects failed to get the appropriate meaning of the term in Arabic. It seems that, the last element of the term inspection is responsible for the confusion. As a result of the confusion, the term was interpreted as آلة تصور مرئية. As is shown in d, e, and f, the subjects dealt with inspection as expectation. The reason behind this confusion could be that the students thought the synonym of inspection is expectation. Yet, inspection is تفتيش or فحص while expectation is توقع or تصور. Besides that, some of them went on to come up with the word آلة as the translation to fit with their own understanding of the term.

Despite this, the term is in cell phone jargon, yet the subjects can easily grasp its meaning by returning back to bilingual dictionaries because it is not restricted to a specific jargon.

## **Term 2 Tone mapping**

Tone mapping is a technique used in image processing and computer graphics to map one set of colors to another to approximate the appearance of high-dynamic-range images in a medium that has a more limited dynamic range.

Unlike the first term, this term is highly specialized to the field of telecommunication technology; so, many students rendered the term wrongly. The result shows that 66.6% of engineering students' and 76.7% of MA translation students' translations were generally unacceptable as in:

- a) نغمة رسمة الخرائط
- b) تعيين النغمة
- c) توصيل النغمة
- d) خريطة الرنات
- e) رسم تخطيطي للصوت

The problem is the term tone mapping translated literally as tone نغمة and mapping الخرائط, so the subjects produced inappropriate meanings as from a to e. The subjects have recognized that tone mapping has to deal with tones of mobile, so they could not manage to give the appropriate translation in Arabic. They should have a good background knowledge relating to the field of telecommunication technology because no bilingual dictionaries have this term.

Only 3.5% of engineering students and 4.7% of MA translation students rendered the term appropriately. The following are some examples of acceptable translations:

- a) تقنية تقريب درجة اللون في الصورة لأقرب مدى للعين
- b) تقنية تعديل درجة اللون في الصورة لتبدو أكثر وضوحاً

The first translation was also given by professionals in the field. Because the term has no equivalent in Arabic, subjects and professionals went on to use paraphrase.

About 29.9% of engineering students' and 18.6% of MA translation students' answers were blank.

### **Term 3 Time Lapse**

Time lapse is a cinematography technique whereby the frequency at which film frames are captured is much lower than that which will be used to play the sequence back. When one replays this sequence at normal speed, time appears to be moving faster and lapsing.

Only 14% of engineering students managed to translate it correctly whereas no one of the MA translation students translated it appropriately. The following are examples of acceptable translations:

- a) تقنية التصوير السريع
- b) تقنية التصوير السريع بمرور الوقت

The experts' suggestion was the same as the first translation.

Some subjects (72.5%) of MA translation students rendered the term literally as الفاصل الزمني and others (27.5%), also translated inappropriately as in the following cases:

- a) تعيين الوقت
- b) وقت التشويش

The subjects used literal translation to resolve the problem of translating the term. The confusion behind this term is the deficiency of the translation students in the technological field. Therefore, they translated the term literally. Moreover, 37% of engineering students also used literal translation. Because of this, the study subject needs to be aware that the words differ in their meanings according to the different jargons.

Another problem related to this term is 63% of engineering students Arabicized the term as تايم لابس without giving a translation because it is widely circulated in their study and in daily life as this. The study subject should understand the function of this term and then try to translate it because no specialized bilingual dictionaries exist to help.

About 21% of engineering students' and 7% of MA translation students' answers were blank.

#### **Term 4 Retina Display**

Retina display is a brand name used by Apple for screens that have a higher pixel density than their previous models.

This term is considered as problematic for both groups. Only 4% of engineering students got the accepted translation whereas no appropriate answers were produced by MA translation students. The following examples are acceptable translations:

- a) شاشة ذات نقاط عالية الدقة
- b) شاشة واضحة ذات النقاط الكثيفة

They used paraphrase because no equivalent can be found in Arabic. The professionals suggested the second translation.

91% of MA translation students and 70% of engineering students failed to translate it appropriately. The following examples are unacceptable translations:

- a) شاشة ريتنا
- b) شاشة عرض
- c) نوع شاشة
- d) شاشة بحجم معين

The problem in this term occurs in failing to know the real feature of this display that distinguish it from other displays. Thus, subjects rendered only display شاشة or عرض or Arabicized Retina as ريتنا. The study subject should not only mention that this is a kind of display, but should know the real function or feature of this display to let the non-specialized audience understand more. Therefore, this demands a good knowledge in cell phone jargon to render it appropriately. No specialized bilingual dictionaries exist to help.

About 26% of engineering students' and 9% of MA translation students' answers were blank.

### Term 5 HDR

HDR stands for "High Dynamic Range" imaging, and it's an old photography practice recently introduced to camera phones like the iPhone and some Android devices (or with the use of special apps).

Most engineering students (72%) and MA translation students (79%) failed to get acceptable translation. The following are some examples of unacceptable translations:

- a) مدى ديناميكي عالي
- b) مدى فعالية مرتفع
- c) تقنية تنوع درجات اللون في الصورة
- d) تقرير التنمية البشرية
- e) المجال الحركي

Some students in the two groups satisfied by transferring what an acronym stands for without specialization for imaging or other specialties as in a and b and this is not enough. 12% of engineering students mixed this term with tone mapping as in c. Also, 11.7% of MA translation students mixed this term with Human Development Report (HDR) depending on their own knowledge of what the acronym HDR stands for. About 21% of engineering students' and 14% of MA translation students' answers were blank. The study subject should have a good acquaintance with the function and definition of this technique.

Both groups have the same percentage of acceptable translations, 7% only, such as:

- a) التصوير بالمدى الديناميكي العالي
- b) تقنية التصوير بتقنية وكفاءة عالية تقترب للعين البشرية

The professionals suggested the first explanation.

### **Term 6 NFC**

NFC is stands for “Near field communication”, and it is a set of communication protocols that enable two electronic devices, one of which is usually a portable device such as a smart phone, to establish communication by bringing them within 4 cm (2 in) of each other.

This seems an easy term to translate as 70% of MA translation students and 63% of engineering students delivered acceptable translations. The subjects translate it literally (what the acronym stands for) and that is enough to understand it well, as in:

- a) تقنية اتصال قريب المدى
- b) تقنية الاتصال اللاسلكي قريب المدى

The professionals suggested the second translation.

16% of MA translation students and 18% of engineering students did not provide any translations, and 14% of MA translation students and 19% of engineering students experienced difficulties in capturing the exact meaning of the term. They gave unacceptable translations such as:

- c) تكنولوجيا للإشارات المغناطيسية
- d) بالقرب من برج الاتصالات

Obviously, these translations failed to convey the appropriate idea of this term. For instance, when they translated the term as تكنولوجيا للإشارات المغناطيسية or بالقرب من برج الاتصالات, they misunderstood the real meaning or the function of this term. The study subject should understand the meaning of the concepts before translating and bear in mind the specific jargon they translated in.

### **Term 7 Touch ID**

Touch ID is Apple's biometric fingerprint authentication technology.

21% of engineering students and 4.7% of MA translation students gave acceptable translations as in the following examples:

- a) بصمة المستخدم
- b) التعريف بواسطة البصمة الخاصة بالمستخدم

The experts suggested the first translation.

Most subjects in the two groups failed to grasp the right meaning of this term as was the case for 61% of engineering students and 33.7% of MA translation students. Furthermore, 18% of engineering students' and 11.6% of MA translation students' responses were blank. The following are some examples of unacceptable translations:

- a) هوية
- b) البصمة

Some of those who translated the term as هوية depending on the word ID (identification card). Others translated the term as البصمة, which is

somehow vague according to expert evaluation. The study subjects should not only translate the term literally and leave out the first part of the term because the result will not be satisfactory. Moreover, the study subjects should also allocate the concepts well when they translated. No specialized bilingual dictionaries exist to help in grasping the meaning well.

### **Term 8 MicroSD**

Micro SD is a format for removable flash memory cards, and it is a tiny storage accessory that you insert in your phone to massively boost capacity. The cards are commonly used in mobile phones, as well as in some newer handheld GPS devices, portable media players, and digital audio players. (SD stands for Secure Digital)

Despite the clearness and daily use of this term, the results was inconvenient. Only 61.4% of engineering students and 35% of MA translation students managed to get the appropriate meaning as indicated by the following:

- a) ذاكرة تخزين
- b) ذاكرة إضافية
- c) ذاكرة

Some engineering students (26.3%) and (58%) MA translation students provided unacceptable translations as in:

- a) شريحة
- b) اس دي مايكرو

One of the reasons behind these results is the students mix up the concepts with each other. They thought MicroSD as the same as SIM card yet it is totally different. MicroSD is a memory card whereas SIM is subscriber identity module for a mobile phone. Another reason for unacceptable translations is the use of Arabicization method which does not reflect the meaning of the term. Besides that, this term has an equivalent in Arabic, so there is no reason for Arabicization. The study subjects should avoid Arabicization when there is an equivalent in Arabic. Also, the study subjects should use Thesaurus dictionaries to understand the differences in meaning between close terms. (See <http://www.freethesaurus.com>).

The results between the two groups are not close somehow due to unfamiliarity of this term by MA translation students as against engineering students. About 12.3% of engineering students' and 7% of MA translation students' answers were blank.

### **Term 9 Notifications banner**

There is no definition for this term. Yet, this is one of the easiest terms in cell phone jargon in spite of the low percentages of accepted translations. 37% of engineering students and 33% MA translation students have produced acceptable translations, which are:

- a) شريط إشعارات
- b) شريط تنبيهات

And the professionals also suggested these translations.

65% of MA translation students and 45.5% of engineering students delivered unacceptable translations, such as:

- a) صفحة الإشعارات
- b) لوحة الإشعارات
- c) راية الإشعارات

The problem with this term is with the word banner not notifications. 100% of participants of unacceptable translations in both groups rendered the term notifications appropriately. They provided different translations for the word banner as from c to e. The reason for this result could be due to the fact that this word has different equivalents in Arabic and the participants could not manage to choose the exact one related to cell phones. The task of the study subject here lies on choosing the appropriate translation for banner depending on the jargon and the context. 2% and 17.5% of MA translation students' and engineering students' answers were blank respectively.

### **Term 10 Reboot**

Rebooting is the process by which a running computer system is restarted, either intentionally or unintentionally. Reboots can be either cold (alternatively known as hard) where the power to the system is physically turned off and back on again, causing an initial boot of the machine, or warm (alternatively known as soft) where the system restarts without the need to interrupt the power.

2.3% of MA translation students and 7% of engineering students did not give any options and 95% of MA translation students and 93% of engineering students did not manage to give acceptable translations. The following are some examples of unacceptable translations:

a) إعادة تشغيل

b) الرجل الآلي

The reason for this result could be due to the fact that the participants thought that the word reboot is a synonym to restart. The experts use reboot for restart by force as opposed to restart to restart the cell phone normally. The experts accepted the translation of reboot as إعادة تشغيل إجباري while restart as إعادة تشغيل. The dictionaries do not provide study subjects with real differences between reboot and restart, so this depends on study subject's knowledge. (see <http://dictionary.cambridge.org/>)

9.7% of MA translation students rendered the term as in b. They thought it is similar to robot, although a robot is mechanical machine that is guided by a computer program and is totally different.

### **Term 11 3G talk time**

3G stands for third generation, and it is a somewhat generic term for network technologies that the ITU classifies as part of their IMT-2000 specification. Generally, wireless network technologies must be able to provide a mobile device with a downlink connection speed of 384kbps in order to be considered a 3G technology.

Most MA translation students (74%) and engineering students (63%) gave unacceptable translations due to the lack knowledge of how talk time relates to third generation. The following are some examples of unacceptable translations:

- a) اتصال عبر الثري جي
- b) 3G اتصال عبر تقنية
- c) عمر البطارية في الجيل الثالث
- d) مدة المكالمة في الجيل الثالث

The results showed that some of subjects are sufficient with translating one part as in the word 3G and give inappropriate translation for the second part as in c and d while others did the opposite as in a and b. It seems that many subjects misunderstood the meaning of this term well as in c. 12% of MA translation students' and 25% of engineering students' answers were blank.

14% of MA translation students and 12% of engineering students provided an acceptable paraphrase for example تقنية الاتصال اللاسلكي في الجيل الثالث عن طريق شريحة البيانات which is also provided by experts.

### **Term 12 4G**

4G is the fourth generation of mobile telecommunications technology, succeeding 3G. A 4G system must provide capabilities defined by ITU in IMT Advanced. Potential and current applications include amended mobile web access, IP telephony, gaming services, high-definition mobile TV, video conferencing, 3D television, and cloud computing.

Therefore the term is closely related to 3G and is only different in the speed of internet provider. The percentage of unacceptable translation was higher in this term. 63% of MA translation students and 52.7% of engineering students failed to get acceptable translation such as following examples:

- a) جيجا بايت
- b) الجيل الرابع من الهواتف النقالة
- c) وقت المكالمات في الجيل الرابع
- d) عمر البطارية في الجيل الرابع
- e) 4G التواصل عبر

The problem in rendering this term is the same as for 3G talk time. There is no background knowledge of the real feature of this term. Moreover, some students want to mix this term with GB as in a. GB stands for Giga Byte and it is a measure of storage capacity. Others misunderstood the meaning of term as from b to e, so they rendered inappropriately.

14% of MA translation students and 22% of engineering students gave acceptable explanations as in تقنية الاتصال اللاسلكي في الجيل الرابع بسرعة عالية .

The experts suggested this translation. 23% of MA translation students and 24.5% of engineering students did not give any suggestions.

### **Term 13 Android**

Android is an operating system for smart phones and other devices, developed by Android, Inc. and later purchased by Google.

63% of engineering students and 81% of MA translation students managed to translate this term appropriately as *نظام التشغيل الخاص بجوجل* or *اندرويد* and the experts suggested both translations. They accepted *اندرويد* because it is familiar in the world of telecommunication technology and lay people can understand it.

30% of engineering students' and 19% of MA translation students' answers were unacceptable as in:

- a) *نظام تشغيل*
- b) *روبوت*
- c) *آلي*

According to the experts in question, the translation of this term as *نظام التشغيل* only is not enough because there are other operating systems such as iOS developed by Apple.

Some students gave translations as in b and c because Android in dictionary meant an automaton in the form of a human being. (See [www.dictionary.com](http://www.dictionary.com)). There are no specialized bilingual dictionaries to help in grasping the meaning appropriately.

Only 7% of engineering students' responses was blank.

#### **Term 14 Air time**

Air time is the number of minutes spent talking on the phone, or the allowance of minutes from your provider.

The results show that this term was one of the most difficult terms that the subjects faced. The following translations are some of what were considered as acceptable translations provided by 10.5% of engineering students and 9% of MA translation students:

- a) مدة المكالمة
- b) مدة المكالمة الفعلية

The experts suggested the second translation.

70% of MA translation students and 66.7% of engineering students provided unacceptable translations and 25% and 22.8% of their responses respectively were blank. The following are some examples of unacceptable translations:

- a) وقت الهواء
- b) الزمن عبر الهواء
- c) وضع طيران

C and d involve a literal translation of the term. It seems that the subjects had not heard of this term previously, so they resorted to the literal translation as an easy option which was not acceptable in this case. In e, the subjects thought that this term is a synonym for airplane mode. The study subject should know and understand the function of the term to render it appropriately.

### Term 15 Hands-Free

Hands-free is a safety feature that allows you to talk without holding the handset to your head and often involves using an extra hands-free accessory such as a Bluetooth earpiece.

This term is considered the most problematic term. 88% of engineering students and 75% of MA translation students provided unacceptable translations. 12% and 25% of their responses respectively were blank. There were no acceptable translations at all from either group.

The following are some examples of unacceptable translations:

- a) عند الخروج من الشبكة
- b) أتوماتيكي
- c) إغلاق الشبكة
- d) التحكم دون استخدام اليدين
- e) خاصية الدفع الإلكتروني

The results from a to e reflect their inability to understand the meaning of the term. Obviously, some of them mix up the terms with each other and get translations as in a, c and e. Others want to render it literally as in d and e which are unacceptable translations. The study subject should have background knowledge of cell phone jargon because no specialized dictionaries exist to help.

The professionals suggested a translation for this term which is: سماعات لاسلكية depending on the function of this term.

### Term 16 MP3 Player

MP3 Player is a portable consumer electronic device that allows you to store and play audio files in MP3 format. MP3 players are small handheld devices and often use flash memory for storing MP3 files.

This term is circulated in public as MP3, so 74% of engineering students and 67% of MA translation students failed to give acceptable translations. 7% of engineering students did not give any answers. Let consider some of their unacceptable translations:

a) mp3

b) مشغل موسيقى

c) مشغل أغاني

The above suggestions show that the subjects faced difficulty in finding an appropriate translation of this term. The reason for a, could be due to the fact that the subjects knew the term mp3 as is without thinking about whether there is an equivalent or not. Others want to try to translate it depending on one of the functions of this term as in b and c, so these are unacceptable because mp3 is not only for music, but also for any audio files.

19% of engineering students and 33% of MA translation students managed to understand the function of this term and produced acceptable equivalent such as:

a) مشغل وسائط صوتية

b) مشغل ملفات صوتية

The professionals suggested the first translation.

### Term 17 SIM

SIM stands for Subscriber Identity Module. It is the chip that identifies the mobile number and mobile account to the network. It stores essential data and is required to make or receive calls on your network.

The term appeared to be obvious and easy to translate despite being an acronym. Indeed, this term achieved a high percentage of acceptable translations. The translation بطاقة تعريف المشترك and شريحة الهاتف were provided by 79% of engineering students and 74.4% of MA translation students. The professional suggested the same translations. But the translation of the term still gave rise to concern, as 16% of engineering students and 23.3% of MA translation students produced unacceptable translations. 5% and 2.3% of their responses respectively were blank. Let us consider some of their translations:

a) سيم

b) ذاكرة تخزين

The above were not considered as unacceptable translations. The reason for unacceptable translation in a is the use of the Arabicization method which does not reflect the meaning of the term. Besides that, this term has an equivalent in Arabic as it is known or suggested by professionals, so there is no reason for Arabicization here. In b, the subjects mix up the term with MicroSD as I mentioned before in analysis of MicroSD. The job of the study subject is to avoid Arabicization when there is an equivalent in

Arabic. Also, the study subjects should use Thesaurus dictionaries to determine the differences in meaning between the close terms.

### **Term 18 WAP**

WAP stands for Wireless Application Protocol and it is a technical standard for accessing information over a mobile wireless network. A WAP browser is a web browser for mobile devices such as mobile phones that uses the protocol.

51% of engineering students and 88% of MA translation students gave unacceptable translations such as:

- a) بروتوكول التطبيقات اللاسلكية
- b) بروتوكول حماية الشبكات
- c) بروتوكول حماية
- d) وab

These were considered as unacceptable translations because the subjects reflect their misunderstanding of the function of this term depending on what the acronym stands for as in a to c. In d, the subjects did not know the meaning of this term or it is familiar to them as this, so they Arabicized the term to be on the safe side yet this is unacceptable. The job of the study subject is to understand the function of the SL term to render it appropriately in the TL.

The professionals suggested a translation which is بروتوكول الاتصال بالانترنت.

30% of engineering students and 6% of MA translation students managed

to give acceptable suggestions. Otherwise, 19% of engineering students and 7% of MA translation students did not give any suggestions.

### **Term 19 Call Hold**

This technique enables you to put a caller on hold while a second call is answered or made.

This seems an easily translated term as 86% of engineering students and 81.4% of MA translation students delivered acceptable translations, so the acceptable translation could be تعليق المكالمات as it also appears in the suggestions of the professionals. Also, the following translations would be regarded as acceptable translations:

- a) توقيف المكالمات مؤقتاً
- b) إيقاف مؤقت للمكالمة

7% of engineering students and 9.3 % of MA translation students did not provide any translations, and the same percentages of the subjects respectively experienced difficulties in capturing the exact meaning of the term. They gave unacceptable translations such as:

- a) إمساك المكالمات
- b) انتظار مكالمات
- c) تحميل مكالمات

The reason for this result could be due to the fact that the word hold has different equivalents in Arabic and the subjects could not manage to choose

the exact one for this cell phone term. Bilingual dictionaries of English/Arabic can be helpful here in this term.

### **Term 20 Call Divert**

Call divert is a phone feature that enables the user to forward or redirect their incoming calls to an alternate number, which can be a landline or cellular number.

The difficulties of this term seems to be similar to call hold yet the percentages here is more in unacceptable translations. 77% of engineering students did not give acceptable translations while only 14% of MA translation students did not do so. Let us illustrate some of their unacceptable translations:

a) تغيير المكالمة

b) تغير المكالمة

The results showed that word divert has different equivalents in Arabic and the subjects could not manage to choose the exact one for this cell phone term, so they failed in giving acceptable translations. The knowledge of cell phone jargon is needed in such cases.

74% of MA translation students and only 16% of engineering students provided an acceptable translation which is تحويل المكالمة. The professionals also suggested this translation.

The possible reason of the different percentages between the two groups is the ability of MA translation students to get the appropriate meaning of divert.

12% of MA translation students' and only 7% of engineering students' responses were blank.

### **Term 21 Call Restriction**

Call restriction enables you to restrict or bar certain or all types of calls to and from your mobile phone, i.e. outgoing calls, outgoing international calls, or incoming calls.

The professionals suggested حظر المكالمات or حظر الاتصال. 42% of engineering students and 46.5% of MA translation students suggested the same.

Others considered the term to be problematic because the subjects depended on literal translation of the word restriction rather than what is call restriction, so they provided unacceptable translations in 49% of engineering students and 32% of MA translation students as well as this, 9% and 21% of their responses respectively were blank. The following are some examples of unacceptable translations:

- a) تقييد المكالمات
- b) حدود المكالمات
- c) محددات المكالمات

Restriction has different equivalents in Arabic but no one can be related to this cell phone term. These equivalents as in a to c made the term vague, so it is unacceptable to be used. The study subject should be aware that literal translation cannot always succeed especially if there is an equivalent for the term. The study subject should have a sufficient background in the cell phone jargon to translate this term.

### **Term 22 Widget**

A widget can add a wide variety of functionality including; icons, menus, buttons, or add-ons that give the user the latest news, sports scores, stocks, weather information, random or daily pictures, to-do list, traffic reports, calendar, mini-games, quotes, etc.

Only 7% of engineering students managed to give acceptable translation which is تطبيق مصغر. The professionals suggested the same translation.

Most engineering students (72%) and MA translation students (79%) failed to give appropriate equivalent. Let us illustrate some of their translations:

- a) ميزات
- b) إضافات
- c) ويجدت

The results in a and b show that despite this term existing in the subjects' cell phones, they misunderstood it. Widgets are not about features or extras of programs but they are small apps. Some students Arabicized the term because they failed to give any translation or even explanation of it. The

study subject should understand the meaning well for this term and also, specialized bilingual dictionaries is needed in order to help, but they do not currently exist.

### **Term 23 Bluetooth**

Bluetooth is technology conceived as a wireless alternative to data cables by exchanging data using radio transmissions. This term comes from a tenth century Danish King, Harald Blåtand or, in English, Harold Bluetooth.

The professionals suggested two different translations for this term either using the Arabicization method which is the most familiar to lay people which render بلوتوث or give an explanation of the function of this term in simple words which is تقنية تسمح بنقل البيانات عند مسافة معينة. The most circulated suggestion is the first one.

This term registered high percentages of acceptable translations that is, 93% of MA translation students and 82.5% of engineering students. They translated the same as the professionals suggested.

Only 10.5% of engineering students did not manage to give acceptable translations and 7% of engineering students. 7% of MA translation students' responses were blank.

Let us consider some of their unacceptable translations:

- a) السن الازرق
- b) تقنية الاتصال القصير
- c) وسيلة اتصال

In a, the subjects used literal translation which is unacceptable here because the term is then meaningless. In b and c, they misunderstood the function of this term, so they render it inappropriately; the study subject needs to be aware of using the right strategy during translation because this affects the result of translation.

#### **Term 24 Stylus**

Stylus is a small pen-shaped instrument that is used to input commands to a computer screen, mobile device or graphics tablet. With touch screen devices, a user places a stylus on the surface of the screen to draw or make selections by tapping the stylus on the screen.

It is a very technical term. It exhibited the highest percentages of blank responses; 56% of engineering students and 21% of MA translation students. In addition, 28 % of MA translation students and 18% of engineering students provided unacceptable translation such as:

- a) ستايلس
- b) قلم

Despite the term having an equivalent in Arabic, the subjects failed to provide the appropriate answer. Subjects use the Arabicization method if they do not know the term as in a, whereas in b they do not specify a feature of this term. If we back translated قلم into English it could mean pen. This does not reflect the meaning of stylus, so it is not acceptable.

26% of engineering students and 51% of MA translation students managed to give correct answers, such as:

- a) إبرة تسجيل
- b) قلم يستخدم لشاشات اللمس

The professionals gave the second option as their suggestion.

### **Term 25 LCD**

LCD stands for liquid crystal display and is a flat-panel display or other electronic visual display that uses the light-modulating properties of liquid crystals.

LCD one of the most famous displays that are used in many computers, TVs, and cell phones. It is known to lay people as this without giving any translation or analyzing what the acronym stands for. The professionals use Arabicization method or paraphrasing of this kind of displays but still with paraphrasing it will be highly technical to be understood.

The suggestions are as follows:

- a) شاشة ال سي دي
- b) شاشة تستعمل خاصية تحرير الضوء في البلورات السائلة

40% of MA translation students and 46% of engineering students gave the same as the first suggestion. Others used literal translation for the term as

in شاشة كريستال السائل which is still ambiguous and is thus considered to be unacceptable. 9% of MA translation students and 19% of engineering students did not provide any suggestions. The study subject needs a high level of knowledge and expertise to manage to give a correct translation.

### **Term 26 Focus Pixel**

Focus pixel is a technology that is found in DSLRs, and is also shown as a demonstration of the iPhone's continuous autofocus.

It is a very technical term, so no acceptable suggestions were proposed for this term. 74% of MA translation students and 72% of engineering students gave unacceptable translation as follows:

- a) دقة العرض
- b) وحدة تركيز
- c) دقة الشاشة

The results show that the subjects faced difficulties in translation due to the fact that this term is highly technical and needs a good knowledge to be understood and rendered correctly because no bilingual dictionaries include this term. Moreover, subjects depended on literal translation which is unacceptable in such cases because the meaning is different. 26% of MA translation students' and 28% of engineering students' responses were blank.

The professionals suggested that the term be translated as خاصية الضبط focusing on the function of this technology.

### **Term 27 AMOLED Display**

AMOLED display stands for Active-Matrix Organic Light-Emitting Diode, a type of display that is found in TVs and mobile devices.

This kind of display is unfamiliar to lay people and is thought of as equivalent to an LCD display. The professionals faced difficulties in the translation of this term. They suggested that it be explained as follows: الشاشة المصفوفة ذات الألوان المشبعة. 7% of engineering students and 5% of MA translation students gave an acceptable translation similar to the professionals.

79% of MA translation students and 37% of engineering students provided unacceptable translations such as:

a) شاشة عرض

b) شاشة

The results show that the subjects translated only display without AMOLED due to an inability to appreciate the features of this display. This term needs a background knowledge in the related field to render the translation appropriately.

### **Term 28 WiMax**

WiMax is a wireless broadband technology that delivers WiFi-like speeds to wide areas.

79% of MA translation students and 47% of engineering students gave unacceptable translations and also 7% and 42% of their responses respectively were blank. The following are illustrations of some of their translations:

a) تقنية اتصال لاسلكي

b) نوع شبكة واي فاي

The reasons behind these results is that the subjects did not understand the term well, so they mixed up the concepts with each other, and as a result produced a, while in b they did not give any specific paraphrase related to this term. Moreover, they used the Arabicization method in b for the word Wi-Fi which has an equivalent in Arabic انترنت لاسلكي and this is unacceptable. The study subjects need to be aware of differences in meaning between concepts and should not generalize in translation.

14% of MA translation students and 11% of engineering students gave acceptable suggestions as in:

a) تقنية بث انترنت لاسلكي لمسافات بعيدة المدى

b) تقنية بث انترنت لاسلكي ضمن نطاق كبير

The professionals suggested the first translation.

### **Term 29 Quick Type Keyboard**

This term is described as Apple's smartest keyboard ever, and it is designed to offer word suggestions while typing.

14% of MA translation students and 5.3% of engineering students managed to give acceptable translations as in لوحة المفاتيح مع خاصية توقع الكلمات. Subjects used paraphrasing in order to convey the meaning of the SL term appropriately to TL. The professionals also suggested did that.

74% of MA translation students and 75.4% of engineering students gave unacceptable translations as:

- a) لوحة مفاتيح سريعة الطباعة
- b) لوحة مفاتيح للإدخال السريع

Subjects did not grasp the meaning of the term well, so they used literal translation. The translator needs to understand the term and its features before translating it. Other subjects did not give any suggestions.

### **Term 30 Keypad lock**

Keypad lock is a feature provided on some mobile phones which allows the user to disable the keys so that a number will not accidentally be dialed while the phone is in a pocket or purse.

It seems to be the easiest and clearest term because it registered the highest scores in acceptable translations with no unacceptable suggestions. 97% of MA translation students and 93% of engineering students gave the acceptable translations such as:

- a) قفل لوحة المفاتيح
- b) قفل الشاشة الرئيسية

According to the professionals in question the two suggestions are accepted since the first one relates to older cell phones whereas the second relates to newer ones. Only 3% of MA translation students' and 7% of engineering students' responses were blank.

### **4.3 Part Two: Strategies Employed in the Translation of Cell phone Terms in this Study.**

#### **4.3.1 The Strategies Employed by Subjects of both Groups in the Translating of Cell Phone Terms.**

After analysis of the data in questionnaires, the researcher herself managed to find out some of the strategies that had been selected by the subjects in both groups. They used different strategies to translate cell phone terms. The following are examples of the strategies which were recognized.

**1. Translation:** this strategy is used when each English term has an equivalent term in Arabic. Usually English-Arabic dictionaries are helpful in such case if the terms are familiar, for instance:

- a) شريحة هاتف SIM
- b) إبرة تسجيل Stylus

Literal translation is used for some terms, yet this strategy is not always successful. For example:

- a) وقت هواء Air time
- b) وحدة تركيز Focus pixel

- c) Hands-Free بدون استخدام اليد
- d) NFC اتصال قريب المدى

**2. Arabicization:** this strategy involves little changes of the phonetics and morphology of the foreign term. It consist of writing the English technical terms using the Arabic alphabet with no variation in its pronunciation in the Arabic language, such as:

- a) Bluetooth بلوتوث
- b) Android أندرويد
- c) MP3 Player أم بي ثري
- d) WAP واب

**3. Omission:** this strategy is used with terms that consist of more than one part, such as compounds. In practice, this means deleting one or more of the elements of the source language term, such as:

- a) Reitna display شاشة
- b) 3G talk time وقت التكلم أو الاتصال
- c) Touch ID هوية

**4. Paraphrase:** this strategy is used when translating terms that do not have equivalents. It involves giving an explanation and definition of the term. For instance:

- a) Tone mapping تقنية تقرب درجة الألوان في الصورة لأقرب مدى للعين
- b) WiMax تقنية تعمل على بث الانترنت لاسلكياً لمسافات بعيدة المدى

**5. Functional equivalence:** which seeks to capture the function of the SL expression and render it into a TL expression that performs the same function, such as:

a) Air time مدة المكالمة الفعلية

**6. Translation using a more general word:** this strategy is used when subjects understand only the main element of the term and translate it into Arabic, as in:

a) stylus قلم

From these examples that have been captured from the data analysis above, it can be observed that some subjects managed to give an acceptable translation by using the above strategies, yet some failed to give an appropriate translation as the above strategies may work in some cases, but do not in others.

#### **4.3.2 The Strategies Employed by Professionals in the Telecommunication Technology Field in the Translation of Cell Phone Terms.**

The professionals used different strategies to overcome the difficulties of translating cell phone terms. The following are the strategies used for all terms.

### 1) Translation:

- a) Notification banner شريط إشعارات
- b) Widget تطبيق مصغر
- c) Call divert تحويل المكالمات
- d) Call hold تعليق المكالمات
- e) Call restriction حظر الاتصال
- f) Stylus إبرة تسجيل
- g) SIM شريحة
- h) MP3player مشغل وسائط صوتية

### 2) Literal translation:

- a) Visual mechanical inspection فحص ميكانيكي بصري
- b) NFC اتصال قريب المدى
- c) Keypad lock لوحة مفاتيح
- d) Notifications banner شريط إشعارات

### 3) Arabicization

- a) Bluetooth بلوتوث
- b) Android أندرويد
- c) LCD شاشة ال س يدي

### 4) Functional equivalence:

- a) Hands-Free سماعات لاسلكية
- b) Focus pixel خاصية الضبط التلقائي للصورة
- c) Air time مدة المكالمات الفعلية
- d) Reboots إعادة تشغيل إجباري
- e) Touch ID بصمة المستخدم

f) Time lapse تقنية التصوير السريع

**5) Paraphrase:** The professional translators adopted this strategy because the terms do not have equivalents in Arabic such as:

- a) Tone mapping تقنية تقريب درجة الألوان في الصورة لأقرب مدى العين
- b) Reitna display شاشة واضحة ذات النقاط الكثيفة
- c) AMOLED display الشاشة المصفوفة ذات الألوان المشبعة
- d) WAP بروتوكول الاتصال بالانترنت لاسلكياً
- e) 3G talk time تقنية الاتصال اللاسلكي ف الجيل الثالث عن طريق شريحة البيانات
- f) 4G تقنية الاتصال اللاسلكي في الجيل الرابع بسرعة عالية
- g) Quicktype keyboard لوحة مفاتيح مع خاصية توقع الكلمات
- h) HDR تقنية التصوير بالمدى الديناميكي العالي

## Chapter Five

### Findings, Conclusion and Recommendations

#### **5.1. Introduction and Summary of the Study**

The study aims at investigating the problems of translating English telecommunication technology, specifically cell phone jargon into Arabic as well as determining the strategies used in translating such terms. Furthermore, the study focused on the challenges and difficulties that translators faced in translating such terms.

As telecommunication technology translation is related to technical translation, an overview of technical translation and how it is differentiated from other forms of translation by specialized technical terms as this is considered as the main source of difficulty and challenge even for speakers of the SL. It has been argued that the area of technology is growing rapidly and needs a constant follow up from translation bodies in the Arab world. Thus, technical translators in particular play a major role in this process of communicating and transferring new technological knowledge through translating new technology and inventions from and into different languages worldwide, so that all foreigners can access the new technologies easily.

Moreover, the study has described the challenges and difficulties of translating technical terms as well as the problem of equivalence, and lack of bilingual specialized dictionaries.

The study emphasized on the problems and difficulties faced by engineering and MA translation students in the translating cell phone terms. To discover the reality of these problems, the study empirically investigated the translation of a questionnaire which included thirty cell phone terms. These terms were distributed to computer and telecommunication engineering students and to M.A translation students.

The translated terms were given to experts and professionals in the field of cell phone terminology to be evaluated and to provide translation suggestions for each cell phone term.

After discussion of the analysis, it is possible to categorize the type of strategies that the subjects used to translate such terms. Six strategies were classified and represented which are:

- 1) Literal translation
- 2) Arabicization
- 3) Omission
- 4) Paraphrase
- 5) Functional equivalence
- 6) Translation by a more general word.

## **5.2. Conclusions and Findings of the Study**

The results of this study show that the translation of cell phone terms is problematic for both MA translation students and engineering students. In addition, the findings indicate that subjects have an obvious weakness in

finding acceptable translations and appropriate descriptions for the terms that either mostly cannot be found in English-Arabic dictionaries or have no equivalents in Arabic. Examining the errors which the students made in translating cell phone terms, the study makes the following observations, which show the problematic nature of the translation of cell phone terms into Arabic. They are clarified with examples taken from the subjects' responses to the questionnaire.

1) The use of literal translation in the translation of terms into Arabic has shown that there are a considerable number of terms which were translated literally but failed to translate well into Arabic. Literal translation does not always give a correct translation and may provide an inappropriate translation. It is noted that the subjects used literal translation to render difficult and nonequivalence terms, for instance: the term visual mechanical inspection was rendered literally by 53% of MA translation students and 60% of engineering students as الفحص الميكانيكي البصري and it was considered an acceptable translation, whereas the literal translation of air time وقت الهواء was considered by unacceptable translation.

2) The wider use of Arabicization by the subjects in the study in order to transfer the meaning from SL to the TL. Subjects tend to use this strategy to overcome the problem of nonequivalence and neologisms. They also used it when the transferred terms cannot be found in English Arabic dictionaries. Moreover, it was noticed that the subjects used Arabicization as an easy strategy to transfer even if there is an equivalent for the term. For instance, the Arabicized term of SIM سيم is unacceptable because there is

an equivalent for it which is شريحة هاتف, while the Arabicized term of LCD is acceptable because there is no equivalence for it.

3) The subjects often encountered difficulties in working out the function of cell phone terms which reflect their misunderstanding of the relationship between the concepts. For example: SIM شريحة هاتف and MicroSD ذاكرة هاتف. (see 4.2.1 term 8).

4) Lack of knowledge of cell phone jargon: there is insufficient knowledge of telecommunication technology to help in transferring the meaning and function well, for example: reboot is different from restart but it needs a high level of knowledge to understand the differences. (see 4.2.1 term 10)

5) Some subjects are likely to use general words to transfer the meaning of the term into the target language in cases when the target language has a specific equivalent for it. Using a superordinate cannot be effective in translating cell phone terms because they need to be specific. For instance, some subjects tended to transfer stylus as قلم, which is considered to be unacceptable. (see 4.2.1 term 24)

The above are samples of serious errors made by MA translation students and engineering students. Engineering students are inexperienced in the field of telecommunication technology despite their studying to be computer and telecommunication engineers. Furthermore, MA translation students lack specific knowledge of this technical field.

The results of this study shown that subjects faced some difficulties in translating some cell phone terms as the researcher expected, as well as

answered the questions which existed in chapter one (1.2). As mentioned before, the results show that some difficulties were related to:

- 1) The study subjects lack of sufficient experience and practice to be able to work in the telecommunication technology field.
- 2) Some Cell phone terms are acronyms and are hard to find in general English Arabic dictionaries. The data also show that the subjects employed different strategies in their translation of cell phone terms (as illustrated in chapter 4).
- 3) There is a lack of specialized dictionary concerning cell phone jargon to help in transferring the meaning well.

Therefore, I hope the results of this study are taken into consideration to improve the proportions of students, either MA translation or engineering students, able to understand function better and thus translate well. MA translation students need a training and practical program to improve their competence in translation of cell phone terms through academic courses in University. I believe that computer and telecommunication engineering students need to focus more in understanding the function of terms rather than taking them as undisputed.

From this study, there are many suggestions in Arabic for one English terms. This is due to a lack of term standardization as the result of different Arabic academies and translation bodies in the Arab world. They are not collaborating to produce a specialized English Arabic dictionary of cell phone jargon.

### **5.3. Recommendations**

Translators of cell phone terms are required to have a good knowledge of the subject matter, updated their knowledge of their specialized field and possess a wide understanding of cell phone jargon and acronyms. The study subject of cell phone terms should be careful in choosing the accurate and exact Arabic equivalent for each English cell phone term in order to arrive at an acceptable translation. Moreover, it is essential to have a specialized English Arabic dictionary specializing in cell phone jargon.

After the discussion of their mistakes, it can be stated that the subjects lack knowledge of the subject matter and of cell phone jargon leads to mistranslation of some terms. Furthermore, it seems that as for the main problem of non-equivalents and new terms, the study subjects cannot find specialized dictionaries to help them.

It is a precious suggestion for Arabic academies to make the effort to produce an English-Arabic dictionary of cell phone jargon to support professionals both in translation and in the field of telecommunication technology.

Based on the findings of the study, there are several recommendations to be put forward as follows:

- 1) Universities offer theoretical and practical courses of translation concerned with how to translate and deal with technical terms in technology specifically.

- 2) Instructors of telecommunication and computer engineering students should ensure that the students understand the function of terms related to their study well.
- 3) There should be a specialized bilingual dictionary of cell phone jargon and study subjects should be aware of acronyms in this field.
- 4) A committee should be set up to specify Arabic equivalents for each cell phone term and it should be aware of updates to terms and intervene in the field to provide new equivalents rapidly.

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## Appendixes

### Appendix 1: Questionnaire


Please translate the following English cell phone terms into Arabic:

1.	Visual mechanical inspection	
2.	Tone mapping	
3.	Time lapse	
4.	Retina Display	
5.	HDR (High Dynamic Range)	
6.	NFC (Near Field Communication)	
7.	Touch ID	
8.	MicroSD	
9.	Notifications banner	
10.	Reboots	
11.	3G talk time	
12.	4G	
13.	Android	
14.	Air time	
15.	Hands-Free	
16.	MP3 Player	
17.	SIM	
18.	WAP	
19.	Call Hold	
20.	Call Divert	
21.	Call Restriction	
22.	Widget	
23.	Bluetooth	

24.	Stylus	
25.	LCD (Liquid Crystal Display)	
26.	Focus pixel	
27.	AMOLED Display	
28.	WiMax	
29.	QuickType Keyboard	
30.	Keypad Lock	

## Appendix 2: M.A. Translation Students' Names

**An-Najah  
National University**  
Faculty of Graduate Studies



**جامعة  
النجاح الوطنية**  
كلية الدراسات العليا

---

السيد. مركز الحاسوب المحترم

رغب مساعدة الطالب باختيار

٥٠ طالب ماجستير بحقوق

اوراقهم فيتم توزيع الاستبيان عليهم

مع الاحترام

١١/٢/١٦

التاريخ: 2016/03/6

حضرة السيد د. محمد العملة المحترم

نائب الرئيس للشؤون الأكاديمية

تحية طيبة وبعد ،،،

**الموضوع: تسهيل مهمة الطالبة/ سجي هزاع خضر عبد اللطيف ، رقم تسجيل (11457320)**

**تخصص ماجستير لغويات تطبيقية وترجمة**

الطالبة/ سجي هزاع خضر عبد اللطيف ، رقم تسجيل (11457320) تخصص ماجستير لغويات تطبيقية وترجمة في كلية الدراسات العليا، وهي بصدد اعداد الاطروحة الخاصة بها والتي عنوانها:

(مشاكل ترجمة تكنولوجيا الاتصالات : مصطلحات الهاتف الخليوية من اللغة الانجليزية الى العربية)

يرجى من حضرتكم تسهيل مهمة الطالبة المذكورة اعلاه في توزيع الاستبانة على طلاب ماجستير اللغويات التطبيقية والترجمة على ان يكون الطالب قد انهى دراسة 21 ساعة معتمدة بمعدل تراكمي 2.8 فأعلى ، لاستكمال اجراءات الاطروحة الخاصة بها.

شاكرين لكم حسن تعاونكم.

مع وافر الاحترام ،،،



د. م. الحاج المحفوظ

كلية الدراسات العليا / نابلس

التاريخ: 2016/03/6

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فلسطين، نابلس، ص. ب 7070 هاتف: /2345115، 2345114، 2345113 (972) \* فاكسيل: (972) (09) 2342907

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جلال خضوع ماسين لفرات بقيقه  
 انهم درسم اسماء ويعمل اولى من 2.8

اية مجدي جميل حليبي	1
رافقه عبد المجيد خليل العلي	2
تحسين محمد حسن " خميس داود "	3
شيماء يوسف ابراهيم عبد الحق	4
يحيى عقل عبدالله عقل	5
تسنيم عماد عبد الجبار الشيخ ابراهيم	6
رنا وليد شاكر مسعود	7
ابراهيم عوني ابراهيم ابو الرب	8
رحمه عبد الرحمن ناجي كميل	9
الاء فايز يوسف يامين	10
ناهدة فهمي مصطفى ابو حطب	11
ريما عصام احمد نزال	12
رزان غسان عبدالرحيم مخيمر	13
ايداد احمد حمدان مكحل	14
ايمان ابراهيم يوسف ريان	15
هديل سعيد ابراهيم ابو جراد	16
الين امجد نظمي دويكات	17
تقوى رضوان توفيق مهداوي	18
سهر سمير عبد قدوره	19
حسام عيسى حامد رمضان	20
احمد صالح محمد شايب	21
احلام احمد محمد سلحج	22
سجود جبر سليمان خضير	23
نورا فاروق برهان خليفة	24
سندس خالد عبدالكريم صويص	25
سامح باسم عيسى شحروج	26
زينب فائق سعيد الحج عبد الله	27
بشار " محمد عطا " محمد فران	28
نورا سمير عبدالرحمن ابو زعور	29
شفاء علي محمود احمد	30
هديل عوني عبد الهادي ابو يعقوب	31
سجى هزاع خضر عبد اللطيف	32
لبنى محمد جمعة الحشاش	33
احمد جميل محمد ابو صفيه	34
تامر احمد لطفي عبيد	35
محمد فواز محمود خموس	36
سلام حسام محمد دراغمه	37
براء زياد سعيد يوسف	38
حليمه جودت جودة يوسف	39
خلود مطلق فايز شماسنه	40
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## Appendix 3: Computer and Telecommunication Engineering Students' Names

**An-Najah  
National University**  
Faculty of Graduate Studies



**جامعة  
النجاح الوطنية**  
كلية الدراسات العليا

---

السيد . منذ يا سوب المزم  
رجب مائة الطالب بافينا -  
طالب عسوي عنه تنطيمه علم  
المرطادناه لتقوم بتوزيع الاستبيانه  
عليهم - يا الاهم  
٢٠١٦/٤/١٦

الموضوع: تسهيل مهمة الطالبة/ سجي هزاع خضر عبد اللطيف ، رقم تسجيل (11457320)  
تخصص ماجستير لغويات تطبيقية وترجمة

الطالبة/ سجي هزاع خضر عبد اللطيف ، رقم تسجيل (11457320) تخصص ماجستير لغويات تطبيقية وترجمة في كلية الدراسات العليا، وهي بصدد اعداد الاطروحة الخاصة بها والتي عنوانها:  
(مشاكل ترجمة تكنولوجيا الاتصالات : مصطلحات الهاتف الخليوية من اللغة الانجليزية الى العربية)


يرجى من حضرتكم تسهيل مهمة الطالبة المذكورة اعلاه في توزيع الاستبانة على الطلاب تخصص هندسة الحاسوب و الاتصالات على ان يكون الطالب قد انهى دراسة 120 ساعة معتمدة بمعدل تراكمي 3 فأعلى ، لاستكمال اجراءات الاطروحة الخاصة بها.

شاكرين لكم حسن تعاونكم.

مع وافر الاحترام ،،،

التاريخ: 2016/03/6

حضرة السيد د. محمد العملة المحترم  
نائب الرئيس للشؤون الأكاديمية  
تحية طيبة وبعد ،،،



د. **سليم العطوط**  
رئيس قسم الدراسات العليا للعلوم الإنسانية  
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طلاب كمنه  
صنعت ايضا  
معهم بزيه عن  
والها 120 ساعة فالتدريسي

STU_NAM	
بيسان سعيد احمد ابو بكر	1
شيماء زياد محمد البزور	2
زهير رضا زهير الصدر	3
خيريه عواد عبد الله حمران	4
حنان فؤاد حسن طنبيله	5
حسان صادق عدلي عرفات	6
عبير مصطفى عبد الحفيظ عاليه	7
ساره عبدالرزاق عبدالله طوقان	8
ايه جمال رشاد عرفات	9
هارون ناصر هارون كايد	10
كرم جهاد فؤاد شاويش	11
جمانه عايش احمد جابر	12
ولاء فهميم "محمد رشدي" حمد	13
سندس حمدالله عوض عنتر	14
تامر هاشم تيسير نعن	15
محمود خالد عبد الفتاح ابو سماحة	16
غالب حسام الدين غالب دويكات	17
ولاء عدنان عبد الحفيظ حطاب	18
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زينه فايز حمدان سلاطنه	20
وديع سامي نعيم ابو زنت	21
دعاء عبد الله صالح بني عودة	22
مصعب عمر عزات عيني	23
ديمه تيسير مسعود حمدان	24
ماجده عصام مصطفى عودي	25
سحر اكرم سليم قواريق	26
ايتة عصام صالح دويكات	27
طه عامر رفيق ششتري	28
هنادي برهان "محمد حسن" بني منيه	29
ساره بشار "محمد باسم" شعاع	30
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## Appendix 4: Part of M.A. Translation Students' Answers

❖ Please translate the following cell phone terms into Arabic :

1.	Visual mechanical inspection:	
2.	Tone mapping:	
3.	Time lapse :	
4.	Retina Display :	شاشة عرّان موبائل بحجم معين
5.	HDR (High Dynamic Range) :	مدى فوالج مرتفع
6.	NFC (Near Field Communication) :	
7.	Touch ID :	ID فافن بلمسة اليد
8.	MicroSD :	
9.	Notifications banner :	
10.	Reboots :	إعادة تحميل
11.	3G talk time:	تقنية 3G للاستخدام المتواصل
12.	4G :	4G
13.	Android:	نظام تشغيل موبائل
14.	Air time :	
15.	Hands-Free :	الخارج عن اليد
16.	MP3 Player:	مشغل موسيقى
17.	SIM :	كرت موبائل
18.	WAP :	بروتوكول نقل البيانات
19.	Call Hold :	تطبيق المكالمات
20.	Call Divert :	تحويل المكالمات
21.	Call Restriction :	تقييد المكالمات
22.	Widget :	
23.	Bluetooth :	نوع اتصال لاسلكي PTP
24.	a Stylus :	قلم حبر
25.	LCD (Liquid Crystal Display) :	شاشة عرّان كريستال
26.	Focus pixel:	نقطة تركيز
27.	AMOLED Display :	
28.	WiMax :	نوع اتصال لاسلكي Wireless
29.	QuickType Keyboard :	لوحة مفاتيح سريعة
30.	Keypad Lock :	قفل لوحة المفاتيح

Thank you

❖ Please translate the following cell phone terms into Arabic :

1. Visual mechanical inspection:	الفحص الميكانيكي البصري (التفتيش البصري للجهاز)
2. Tone mapping:	موازنة الألوان
3. Time lapse :	الفاصل الزمني
4. Retina Display :	ريتينيا <del>ديسبلي</del>
5. HDR (High Dynamic Range) :	(وضوح HD) نسبة وضوح عالية جداً
6. NFC (Near Field Communication) :	الاتصال عن قرب (بوتون اسلاك) (الاتصال قريب المدى)
7. Touch ID :	معرفة البصمة
8. MicroSD :	ذاكرة تخزين
9. Notifications banner :	لوحة الإشعارات
10. Reboots :	إعادة التشغيل للأجهزة للجهاز
11. 3G talk time:	الحمل الثالث (الحمل الثالث)
12. 4G :	الحمل الرابع
13. Android:	نظام تشغيل أندرويد
14. Air time :	الوقت المستعمل باستخدام الهاتف (وقت البث)
15. Hands-Free :	بدون استخدام اليدين
16. MP3 Player:	مشغل ام. بي. ثري / مشغل MP3
17. SIM :	سيم (شريحة الهاتف)
18. WAP :	واي بي. أو (بروتوكول الشبكة اللاسلكية)
19. Call Hold :	تعليق المكالمات (وضعها على قائمة الانتظار)
20. Call Divert :	تحويل المكالمات
21. Call Restriction :	حظر المكالمات
22. Widget :	اختصار
23. Bluetooth :	بلوتوث
24. a Stylus :	قلم خاص للشاشات (قلم خاص للشاشات لمس الهاتف)
25. LCD (Liquid Crystal Display) :	شاشات الكريستال السائل (شاشة السيلي)
26. Focus pixel:	فوكس بيكسل (مربع التركيز)
27. AMOLED Display :	أمو ليد <del>ديسبلي</del> (شاشة في الهاتف الرئيسية)
28. WiMax :	واي ماكس (شبكة لاسلكية بعيدة المدى)
29. QuickType Keyboard :	النص التنبؤي
30. Keypad Lock :	قفل الشاشة الرئيسية

Thank you

❖ Please translate the following cell phone terms into Arabic :

1.	Visual mechanical inspection:	
2.	Tone mapping:	
3.	Time lapse :	الانطافئ الزمني
4.	Retina Display :	نوع من الشاشات الجلي
5.	HDR (High Dynamic Range) :	
6.	NFC (Near Field Communication) :	
7.	Touch ID :	
8.	MicroSD :	
9.	Notifications banner :	شريط الاشعارات
10.	Reboots :	اعادة تشغيل
11.	3G talk time:	الجيل الثالث للاتصال
12.	4G :	الجيل الرابع للاتصال
13.	Android:	نظام تشغيل هواتف
14.	Air time :	نظام دفع البطارية
15.	Hands-Free :	
16.	MP3 Player:	مشغل موسيقى
17.	SIM :	بطاقة شريحة
18.	WAP :	بروتوكول الانترنت
19.	Call Hold :	المكالمة في انتظار
20.	Call Divert :	تحويل المكالمات
21.	Call Restriction :	قيود المكالمات
22.	Widget :	لوحة سريعة الوصول
23.	Bluetooth :	بلوتوث
24.	a Stylus :	قلم رصاص رقمي
25.	LCD (Liquid Crystal Display) :	شاشة بلورية سائلة
26.	Focus pixel:	
27.	AMOLED Display :	
28.	WiMax :	لاي واي
29.	QuickType Keyboard :	الانطافئ السريع في الكتابة
30.	Keypad Lock :	قفل الكيبورد

Thank you

❖ Please translate the following cell phone terms into Arabic :

1.	Visual mechanical inspection:	الفحص الميكانيكي البصري
2.	Tone mapping:	الربط بين النغمات
3.	Time lapse :	فاصل زمني
4.	Retina Display :	شاشة عرقية
5.	HDR (High Dynamic Range) :	النسوية الديناميكية
6.	NFC (Near Field Communication) :	التواصل قريب المدى
7.	Touch ID :	بهية اللمس
8.	MicroSD :	بطاقة ذاكرة
9.	Notifications banner :	لوحة الإشعارات
10.	Reboots :	إعادة تشغيل
11.	3G talk time:	زمن المكالمات في الجيل الثالث
12.	4G :	الجيل الرابع
13.	Android:	نظام تشغيل الهواتف الذكية
14.	Air time :	مدة المكالمات
15.	Hands-Free :	الأيدي الحرة / التحدث بالسماعة
16.	MP3 Player:	مشغل وسائط (صوت و فيديو)
17.	SIM :	شريحة تعريف المشترك (المستخدم)
18.	WAP :	بروتوكول التطبيقات اللاسلكية
19.	Call Hold :	تعليق المكالمات
20.	Call Divert :	تحويل مكالمات
21.	Call Restriction :	قيود مكالمات
22.	Widget :	أدوات
23.	Bluetooth :	دائرة نقل لاسلكي
24.	a Stylus :	قلم
25.	LCD (Liquid Crystal Display) :	شاشة عرض كريستال سائل
26.	Focus pixel:	تركيز البكسل
27.	AMOLED Display :	شاشة عرض (مضغوطة) ذات باعث للضوء
28.	WiMax :	اتصال لاسلكي عرض النطاق
29.	QuickType Keyboard :	لوحة مفاتيح للإدخال السريع
30.	Keypad Lock :	قفل لوحة المفاتيح

Thank you

❖ Please translate the following cell phone terms into Arabic :

1.	Visual mechanical inspection:	
2.	Tone mapping:	
3.	Time lapse :	
4.	Retina Display :	شاشة الطوبال
5.	HDR (High Dynamic Range) :	
6.	NFC (Near Field Communication) :	ارتباط قريب المدى
7.	Touch ID :	ID خاص باللمس
8.	MicroSD :	SD دقيقة
9.	Notifications banner :	شريط إخطار بالرسائل
10.	Reboots :	
11.	3G talk time:	تغطية لا يتعدى 3G
12.	4G :	تغطية 4G
13.	Android:	نظام تشغيل أندرويد Samsung
14.	Air time :	وقت الطيران
15.	Hands-Free :	إفلات الشبكة
16.	MP3 Player:	مشغل موسيقى
17.	SIM :	شريحة اتصال
18.	WAP :	بروتوكول نظام وابل
19.	Call Hold :	تعليق المكالمات
20.	Call Divert :	تحويل المكالمات
21.	Call Restriction :	تقييد المكالمات
22.	Widget :	
23.	Bluetooth :	البلوتوث
24.	a Stylus :	
25.	LCD (Liquid Crystal Display) :	شاشة عرض
26.	Focus pixel:	دقة البكسل
27.	AMOLED Display :	
28.	WiMax :	wifi يصل لعدة كيلومترات
29.	QuickType Keyboard :	مفاتيح سريعة الاستجابة
30.	Keypad Lock :	قفل المفاتيح

Thank you

## Appendix 5: Part of Computer and Telecommunication Engineering Students' Answers

❖ Please translate the following cell phone terms into Arabic :

1.	Visual mechanical inspection:	تصوير ميكانيكي
2.	Tone mapping:	تخطيط الأصوات
3.	Time lapse :	وقت التثقيب
4.	Retina Display :	شاشة ريتينا
5.	HDR (High Dynamic Range) :	صوت عالي ديناميكي
6.	NFC (Near Field Communication) :	التواصل عن قرب
7.	Touch ID :	لمسة العين
8.	MicroSD :	ذاكرة
9.	Notifications banner :	شريط إشعارات
10.	Reboots :	إعادة تشغيل
11.	3G talk time:	وقت محادثة على شبكة 3G
12.	4G :	تقنية 4G
13.	Android:	نظام تشغيل كينيتك أندرويد
14.	Air time :	وقت الهواء
15.	Hands-Free :	هاتف اليد
16.	MP3 Player:	مشغل صوتيات MP3
17.	SIM :	شريحة
18.	WAP :	تقنية شبكة الانترنت بالهاتف
19.	Call Hold :	تعليق المكالمات
20.	Call Divert :	انتقال المكالمات
21.	Call Restriction :	محدد المكالمات
22.	Widget :	فيجت
23.	Bluetooth :	بلوتوث
24.	a Stylus :	محرقة
25.	LCD (Liquid Crystal Display) :	شاشة كريستال
26.	Focus pixel:	نقطة التركيز
27.	AMOLED Display :	شاشة نوى أمولد
28.	WiMax :	تقنية شبكة الـ 4G - 802.11n
29.	QuickType Keyboard :	لوحة مفاتيح سريعة
30.	Keypad Lock :	قفل لوحة المفاتيح

Thank you

❖ Please translate the following cell phone terms into Arabic :

1.	Visual mechanical inspection:	الفحص الميكانيكي البصري
2.	Tone mapping:	مخطط النغمات / تخطيط النغمة
3.	Time lapse :	مرو - الزمن
4.	Retina Display :	عرض الشبكية
5.	HDR (High Dynamic Range) :	النطاق الديناميكي العالي / المدى العالي
6.	NFC (Near Field Communication) :	مجال الاتصال القريب
7.	Touch ID :	هوية لمسة الإصبع
8.	MicroSD :	بطاقة ذاكرة ميكرو إس دي
9.	Notifications banner :	شريط الإشعارات
10.	Reboots :	إعادة تشغيل
11.	3G talk time:	مدة التحدث باستخدام الجيل الثالث
12.	4G :	تقنية الجيل الرابع / الجيل الرابع
13.	Android:	نظام أندرويد
14.	Air time :	وقت استخدام الجوال
15.	Hands-Free :	مكالمة
16.	MP3 Player:	ممثل MP3
17.	SIM :	شريحة
18.	WAP :	بروتوكول الرسائل النصية
19.	Call Hold :	إيقاف المكالمة / تعليق المكالمة
20.	Call Divert :	تحويل المكالمة
21.	Call Restriction :	تقييد المكالمة
22.	Widget :	قطعة
23.	Bluetooth :	البلوتوث
24.	a Stylus :	قلم رصاص
25.	LCD (Liquid Crystal Display) :	شاشة البلورة السائلة / شاشة
26.	Focus pixel:	البكسل المركز
27.	AMOLED Display :	شاشة عرض العضو العضو
28.	WiMax :	واي ماكس
29.	QuickType Keyboard :	لوحة المفاتيح السريعة الذكية
30.	Keypad Lock :	قفل لوحة المفاتيح

Thank you

❖ Please translate the following cell phone terms into Arabic :

1.	Visual mechanical inspection:	الفحص البصري الميكانيكي
2.	Tone mapping:	توصيل النغمة / توصيل الطبقات
3.	Time lapse :	الفاصل الزمني / التغير عبر الزمن
4.	Retina Display :	شاشة العرض
5.	HDR (High Dynamic Range) :	النطاق الدينامي المرتفع
6.	NFC (Near Field Communication) :	الاتصال قريب المدى
7.	Touch ID :	مُعرِّف البصمة
8.	MicroSD :	وسيلة التخزين الصغرى
9.	Notifications banner :	لوحة الإشعارات / شعار الإشعارات
10.	Reboots :	إعادة تشغيل
11.	3G talk time:	وقت المكالمات في الجيل الثالث
12.	4G :	الجيل الرابع
13.	Android:	رجل آلي
14.	Air time :	طول المكالمات الفعلي
15.	Hands-Free :	حر اليدين
16.	MP3 Player:	مُعلِّل الصوت والفيديو
17.	SIM :	ذاكرة التخزين الثانوية
18.	WAP :	مُصنِّع الهواتف النقالة
19.	Call Hold :	تعليق المكالمات / الإبقاء المؤقت للمكالمة
20.	Call Divert :	تحويل المكالمات
21.	Call Restriction :	محددات المكالمات
22.	Widget :	أيقونة
23.	Bluetooth :	الوسيط الناقل
24.	a Stylus :	مُرَقِّم
25.	LCD (Liquid Crystal Display) :	شاشة العرض البلورية
26.	Focus pixel:	التركيز الدقيق
27.	AMOLED Display :	شاشة العرض المتغيرة / شاشة العرض العضوية
28.	WiMax :	الاتصال اللاسلكي العالمي
29.	QuickType Keyboard :	لوحة المفاتيح سريعة الكتابة
30.	Keypad Lock :	قفل لوحة المفاتيح

Thank you

❖ Please translate the following cell phone terms into Arabic :

1.	Visual mechanical inspection:	
2.	Tone mapping:	
3.	Time lapse :	الوقت المستغرق من تنفيذ مهمة (Task)
4.	Retina Display :	شاشة الـ Retina مستندة على Apple
5.	HDR (High Dynamic Range) :	
6.	NFC (Near Field Communication) :	الاتصال ونقل المعلومات عبر مجال قريب
7.	Touch ID :	هاتف آيفون
8.	MicroSD :	
9.	Notifications banner :	شاشة الإشعارات
10.	Reboots :	إعادة تشغيل الهاتف
11.	3G talk time:	أطول فترة اتصال بـ 3G
12.	4G :	تقنية الاتصال بـ 4G
13.	Android:	نظام تشغيل للهواتف
14.	Air time :	
15.	Hands-Free :	
16.	MP3 Player:	مشغل الموسيقى
17.	SIM :	كارت شبكة الجوال
18.	WAP :	تقنية الاتصال بالإنترنت عبر شبكة
19.	Call Hold :	انتظار الاتصال
20.	Call Divert :	تحويل الاتصال
21.	Call Restriction :	ممنوع (تقييد) الاتصالات
22.	Widget :	اختصار لبرنامج (أيقونة)
23.	Bluetooth :	تقنية نقل المعلومات عبر فضة
24.	a Stylus :	
25.	LCD (Liquid Crystal Display) :	
26.	Focus pixel:	
27.	AMOLED Display :	شاشة ذات البنية محسنة
28.	WiMax :	شبكة لاسلكية بعيدة المدى
29.	QuickType Keyboard :	
30.	Keypad Lock :	قفل لوحة المفاتيح

Thank you

❖ Please translate the following cell phone terms into Arabic :

1.	Visual mechanical inspection:	تفتيش ميكانيكي بصري للجهاز
2.	Tone mapping:	✓
3.	Time lapse :	تقنية التصوير السريع بمرور الوقت ، وهو تصوير لقطات
4.	Retina Display :	كاشية للشاشات تتميز بميزة أبل
5.	HDR (High Dynamic Range) :	✓ أحدث تقنيات التصوير التي تجمع بين أفضل ما في العالمين
6.	NFC (Near Field Communication) :	لتوصيل نفس الأجهزة القريبة مع بعضها
7.	Touch ID :	بصمة التعرف للأصابع
8.	MicroSD :	ذاكرة تخزين صغيرة
9.	Notifications banner :	شريط إعلانات
10.	Reboots :	
11.	3G talk time:	كاشية لبث الإنترنت الجوال الثالث
12.	4G :	أحدث تقنيات بث الإنترنت عبر شبكات الهاتف الشريحة
13.	Android:	أحد أنظمة تشغيل الجوال والأجهزة المحمولة
14.	Air time :	البث عبر تقنية البلوتوث
15.	Hands-Free :	
16.	MP3 Player:	مشغل الموسيقى
17.	SIM :	شريحة
18.	WAP :	طريقة حماية شبكات WAP
19.	Call Hold :	انتظار المكالمات
20.	Call Divert :	
21.	Call Restriction :	
22.	Widget :	إضافات ، ميزات البرامج
23.	Bluetooth :	بلوتوث
24.	a Stylus :	
25.	LCD (Liquid Crystal Display) :	شاشة عصب
26.	Focus pixel:	
27.	AMOLED Display :	
28.	WiMax :	نظام وارس للاستخدام المكالمات البعيدة
29.	QuickType Keyboard :	
30.	Keypad Lock :	

Thank you

جامعة النجاح الوطنية

كلية الدراسات العليا

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قدمت هذه الأطروحة استكمالاً لمتطلبات الحصول على درجة الماجستير في اللغويات التطبيقية  
والترجمة بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس - فلسطين

2016

## مشاكل ترجمة تكنولوجيا الاتصالات: مصطلحات الهاتف الخليوي من اللغة الانجليزية إلى اللغة العربية

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### الملخص

تهدف هذه الدراسة إلى التعرف على مشكلات ترجمة مصطلحات الهاتف الخليوي من اللغة الإنجليزية إلى اللغة العربية بالإضافة إلى الطرق المستخدمة في ترجمة هذه المصطلحات. هذه الدراسة تعتمد على استبيان يحتوي على ثلاثين مصطلح هاتف خلوي مجمعة من مختلف المواقع الإلكترونية التي تعرض مصطلحات الهاتف الخليوي. كما وُزعت هذه المصطلحات على طلاب من جامعة النجاح الوطنية حيث تنقسم عينة البحث إلى مجموعتين: المجموعة الأولى بلغ عددهم خمسة وسبعون وهم من طلاب هندسة الاتصالات والحاسوب الذين أنهوا أكثر من مئة وعشرين ساعة معتمدة وبلغ معدلهم التراكمي حوالي 3.00 أو أكثر. أما المجموعة الثانية بلغ عددهم خمسة وأربعون وهم من طلاب الماجستير بالترجمة الذين قد أنهوا واحد وعشرين ساعة معتمدة أو أكثر وبلغ معدلهم التراكمي 2.8 أو أكثر. حيث قام الباحث بوصف وتحليل ترجمة المستطلع آرائهم لدراسة المشكلات التي تواجههم. ومن ثم تم عرضها على سبع خبراء متخصصون يعملون في مجالي الحاسوب وتكنولوجيا الاتصالات بتقييم المصطلحات المترجمة للوصول إلى ترجمة مقترحة لكل مصطلح. ولقد كشف تحليل ترجمة المستطلع آرائهم أنهم قد واجهوا مشكلات عديدة في إعطاء ترجمة صحيحة لكل مصطلح ومنها: استخدام الترجمة الحرفية، الاستخدام الهائل للتعريب، الإخفاق في معرفة وظيفة مصطلحات الهاتف الخليوي، افتقار المترجمون إلى الخبرة والتدريب في ترجمة هذه المصطلحات بالإضافة إلى عدم وجود قواميس إنجليزية عربية متخصصة في هذا المجال

لتساعد بالترجمة. كما قام المترجمون باستخدام عدة طرق من أجل ترجمة مصطلحات هاتف الخلوي ومنها: الترجمة الحرفية، التعريب، الحذف، إعادة الصياغة، التكافؤ الوظيفي و الترجمة بالعموم.

