Nicole Zarzar[1]

TOWARDS A STANDARDIZED TECHNICAL ARABIC: CAN ARABTERM RISE TO THE CHALLENGES?

ABSTRACT

The current situation of technical terminology in the Arab world leaves much to be desired. Miscommunication is common and the lack of adequate terminology creates problems of all sorts. What is available does not correspond to the needs of the region. This paper aims to shed some light on the problems of today and of the past as well as show how the ARABTERM technical dictionary project can contribute to solving these problems simply by setting and publishing Arabic terminology for technical fields. ARABTERM is considered to be a serious effort to reanimate the language of science in Arabic and close the growing gap in standard terminology for technical fields left by dependence on foreign languages and other factors.

Keywords: technical terminology, arabicization, specialized dictionary

1. Introduction

The Arabic technical language has been facing many problems throughout the years. These problems, such as lack of terminology in certain fields or terminology that is not unified in Arab countries, have hindered communication among students, teachers, specialized experts and skilled workers, among others. The importance of the Arabic language in the world of today makes it absolutely necessary for these issues to be dealt with. Arabic is the 5th most commonly spoken native language in the world. It is spoken in 22 countries and is one of the six official languages of the United Nations.

This paper will highlight the problems facing the Arabic technical language today and present ARABTERM, an ambitious project that has emerged as a response to these problems. The discussion concerning ARABTERM is based on personal experience and involvement in the project since the beginning of 2011.

[1]German Jordanian University, School of Languages, P.O. Box: 35247, 11180 Amman, Jordan; e-mail: nicole.zarzar@gju.edu.jo

2.Terminology and arabicization

2.1Problems of arabicization: past and present

The situation in which the Arabic technical language finds itself today did not come about randomly. Different events over the course of history have affected the way technical language is dealt with in Arab countries. Therefore, I believe it's necessary to have an idea about the history of the Arabic scientific language in order to make conscious decisions about its future.

Because of the Quran, the Arabic language is strongly linked to the religion of the vast majority of Arabs. According to Al-Manāwy (2003: 205), this close relationship between religion and language is an advantage because it makes people care about the language and hold it in high regard. However, he also mentions that this could also create a problem for arabicization if it makes people want to preserve the language as it is, keeping it 'pure' and 'uncontaminated'.

There has always been a need for arabicization throughout Arab history[2]. Ḥasarah (1994: 19-29) explains this and starts by mentioning evidence of arabicization in poems from the pre-Islamic era. He also explains how, during the first Islamic era, a mainly desert-based society became more urban. That provoked the creation of new terminology. In the time of the Umayyads, and during the reign of AbdAl-Malik, the decision to translate all administration work into Arabic was taken. Then, during the Abbasid dynasty, scientific books had to be translated from the Greek language. This also caused new terminology to emerge. Ḥasarah (ibid) also notes that during the reign of the Mamluks, a large number of scientific books were written in Arabic, and, as a result, many new terms were introduced.

Raddawi and Rifai (2006: 2) maintain that the Arabic language is perfectly capable of taking in new terms. The proof is in the technical words that we use today on a regular basis and which are actually derived from foreign words. Zaydān (1988: 80)reminds us that Arabs were faced with lack of terminology repeatedly throughout history and always dealt with the problem. Scientific books were translated in the Abbasid era from Greek, Latin, Indian, and Persian into Arabic. He argues that the situation today is quite similar, except that the source languages in this era are English, French, German, and others. Ḥalīfah (1987: 217) also notes that many countries, such as Japan, China, Turkey, France, and Denmark, have dealt with the same issue of translating knowledge in the not too distant past, and observes that these countries have advanced technologically. This, however, is only an observation and does not prove that there is a direct correlation between translating modern sciences and advancement.

The Arab nation had witnessed in the past a golden era of scientific development. These prosperous times for the Arabic language gave a huge boost to the translation movement at the time and enabled the Arabic language to play an important role in the transfer of knowledge to the west.

Yet many years later, French and English gained significant importance in the Arab world due to French and British colonization of Arab countries. The influence of these foreign languages remains to this day and can be noticed in the large number of Arab universities which

---

[2]In this paper, the term *arabicization* is used to mean the transfer of words (or more specifically specialized terminology) into the Arabic language, regardless of the method used to do so.

offer technical majors in either French or English. However, Badawi (1997: 11) reckons that the use of foreign languages in Arab countries today is no longer associated with colonialism but rather provides a window to the world. In order for knowledge exchange with more developed countries to occur, it is necessary for students and specialists to have a strong command of a 'bridge language' or lingua franca which in today's world is generally English or French.

Fahmy (1961: 11) believes that the reason many scientific researchers do not write in Arabic today but in a foreign language, lies not in the lack of literature or terminology, but rather simply in the fact that they studied in a foreign language. Since they do not use the Arabic language frequently in their specialization, they have stopped associating the Arabic language with science.

Ḥasarah (1994: 87) also notes that today many professionals and students do not support arabicization. They believe that it leads to isolation and hinders development, since new technologies are produced almost every day (in the field of computer technology, for example). Thus, waiting for translations would be more damaging than helpful.

2.2 What arabicization means for scientific development

Colonial rule might be over, but some of its effects can still be felt in the Arab world, especially on the educational and scientific levels. Ḥraīweš (2002: 16-23) perceives a strong relationship between language and science. The Arab nation that was once acentre of scientific development was also simultaneously very interested in preserving and developing the Arabic language. Therefore, he considers that the relatively scarce scientific development in the Arab world today is related to the lack of support for the Arabic language in the scientific fields. He believes that passion for technical development can only grow in the Arab world when people are able to study and research in their own language. This is perhaps best captured by a quote widely attributed to Nelson Mandela (BBC Web Site), "*If you talk to a man in a language he understands, that goes to his head. If you talk to him in his language, that goes to his heart.*"

Ḥraīweš (2000: 64) also believes that Arabs would be more productive in the scientific field if they were able to research in their own language. He mentions a study which took place at the American University of Beirut that proved that students understood 76% of a lecture in their mother tongue, Arabic, compared to 60% of the same lecture in English.

Al-Manāwy (2003: 165,170) considers technical terms to be a cornerstone for every science and that studying in one's own language simplifies the exchange of ideas. He believes that scientific terms should be the primary focus of the Arabic language academies. Ḥalīfah (1987: 58) also considers that standardized scientific terminology is essential for the progress of research in the Arab world.

Languages evolve, change, and develop to match the necessities of current scientific achievements, argues Ḥalīfah (1987: 52). Arabicization is, therefore, important for knowledge transfer and is thus an essential step towards a modern and practical Arabic language. Without arabicization of modern terminology, the Arabic language will definitely not die out. However, it will distance itself from modern sciences and technology, believe Raddawi and Raddawi and Rifai (2006: 3). They continue to state that without arabicization, the role of Arabic will be restricted to religion and literature. If the technical side of the Arabic language is neglected, they warn, Arabs will one day face difficulties in expressing modern scientific concepts in their own language.

According to Gasser (2004: 235), having accessible, unified terminology will not only simplify the translation process, but it will make it notably cheaper and enable companies to save a lot of money. Inconsistent terminology causes inconsistent documentation, which in turn increases translation costs (by increasing time and effort for terminology research, and making the use of translation memory programs more difficult) and also creates internal and external misunderstandings. If these problems can be faced by a single small company, it is easy to imagine how complicated things can get on the national level, let alone on the international one.

2.3 Institutions of arabicization

The role of the Arabic language academies is to enrich the language with new terminology and adapt it to scientific progress, says Badawi (1997: 20). The first academies of the Arabic language were established in Egypt, Syria and Iraq, and other countries followed later. According to Ḫalīfah (1987: 20), who is the president of the Jordan Academy of Arabic, it soon became clear that the Arabic language academies had to work together in order to achieve anything significant. Therefore, the Union of Arabic Academies was created by order of the Arab League. This Union was meant to be the highest linguistic authority for the Arabic language. However, Badawi (1997: 14) claims that each academy continued to work individually, creating problems for standardization, since each academy translated terminology as it found appropriate. As an answer to this lack of coordination between academies, the Arabization Coordination Bureau was established in 1961 in Rabat, Morocco, and was later on incorporated into the Arab League Organization for Education, Culture and Science with its foundation in 1970. As mentioned by Badawi (1997: 21),the job of the Bureau is to regularly monitor the activities of the different academies, produce standardized technical terminology, publish unified specialized dictionaries, and prepare arabicization conferences.

Although the BCA has produced over 35 specialized dictionaries in many different fields, its efforts to unify terminology around the Arab world have not been sufficiently effective because the individual academies continue to produce and use their own terminology.

Ḥasarah (1994: 205) shows us an example of how many variations were created by different academies and institutions for one simple word. The source language of the terms plays a big role in how it is translated. But even terms translated from the same language will yield different results. The following contains selections from the example by Ḥasarah, who presentsa collection of the different translations of the word *brake* or its French version, *frein*:

- الفرملة (al-farmalah), كماحة (kammāḥah) (Egyptian Academy of Arabic)
- المعوقة (al-muʿawwiqah) (The Journal of the Egyptian Academy of Arabic)
- الموقف (al-muwaqqif) (Iraqi Academy of Arabic)
- المكبح (al-mikbaḥ)for cars and الماسك (al-māsik) for artillery (Syrian Academy of Arabic)
- اللجام (al-liǧām)(a French-Arabic commercial dictionary)
- الحكمة (al-ḥakamah) (Belot Dictionnaire Français-Arabe)
- الضابطة (aḍḍābiṭah), الكابحة (al-kābiḥah) (Modern Dictionary, Arabic-English)

2.4 Views on standardization

So is it sensible to call for the standardization of Arabic terminology? It seems pointless to have so many variations for the same concept. This could easily cause misunderstandings among people using different terms, which will in turn make communication and exchange more difficult, time-consuming, and risky.

Ḥasarah (1994: 209-211), however, believes that inconsistent terminology does not pose a significant problem because it has always existed almost everywhere in the world. He considers that the nomenclature is not as important as the meaning. Zaydān (1988: 33) also shows how dozens of names for a single concept were developed throughout the centuries in the Arabic language. For example, there are 21 different designations for 'light', 52 for 'night', 170 for 'water' and 350 for 'lion'. They originally have one name, but adjectives of certain attributes with stylistic variations are used as synonyms next to them, and these evolved into designations. Although variation is a normal phenomenon, its reduction is in the interest of all those who rely on terminology. When it comes to transfer of knowledge, the more standardized the better.

The advantages of working with standardized terms are many. The value of terms that are accurate, self-evident, and understood in an international context should not be underestimated. When it comes to technical fields, Arab countries often need to cooperate in order to achieve shared goals. For example, multiple countries could work together on a shared water management project. It is in the interest of those from the involved countries to be able to understand each other in classical Arabic, therefore reducing the risk of misunderstandings. Standard terms would make communication clearer and the work more efficient.

Standardization is no easy process. It is very complicated to change terminology usage patterns that are embedded in local societies. The best way to start is with education. Standardizing the terminology in textbooks will, slowly but surely, get the terms into the workplace eventually.

However, the importance of political decisions must not be underestimated. Al-Haq and Al-Olimat (2002) focuses on the political aspect of arabicization and their study is based on an empirical work and the analysis of the results. They hypothesized that arabicization without political decisions would not make any progress. They questioned members of parliament about where they stand on arabicization as a political issue and asked them whether they were willing to take on a commitment. In their results, they mention that arabicization faces no insurmountable problems. According to their findings, it is the lack of will and determination on the part of people in leadership positions (in linguistic institutions and ministries) that is the issue to be overcome.

Total standardization of Arabic technical terminology will most likely never be achieved. No matter which measures are taken, it is simply not possible to force people in so many countries to use certain terms. However, attempting to make a change through education and political decisions could generate success in time.

3. ARABTERM

It was the still-existing lack of standard technical terminology in fields which involve international development cooperation, like water engineering, which led to the creation of ARABTERM.org; a technical online dictionary that aims to unify and spread Arabic specialized terms, and covers a wide range of technical and scientific fields like automotive engineering, renewable energy, and water. The dictionary provides technical terms in Arabic, English, French, and German and contains detailed explanations in Arabic as well as illustrations when applicable. The dictionary can be accessed free of charge on the ARABTERM.org website.

3.1 Origins

The ARABTERM project was launched in 2008 by the Arab League Educational, Cultural and Scientific Organization (ALECSO) and the German Federal Ministry for Economic Cooperation and Development (BMZ). It is executed by the Deutsche Gesellschaftfür Internationale Zusammenarbeit (GIZ) and the Arabization Coordination Bureau (BCA) and counts on the collaboration of the Goethe Institute in Cairo as well as the German-Jordanian University (GJU).

The fact that such important institutions are involved in ARABTERM shows the demand on such an ambitious project in the Arab region in current times. These institutions are well aware of the difficulties in finding reliable Arabic technical terms and understand the importance of specialized language.

The strong connection to ALECSO is very important for ARABTERM's goals of standardizing Arabic technical terminology. Through its strong ties to all Arabic language academies and education ministries, ALECSO's partnership ensures the credibility and reliability of the terms offered to the entire Arab world. Some people complain that the main barrier facing standardization is the lack of government decisions accepting and implementing standard terminology. However, through its close cooperation with ALECSO and the German government, it can be argued that ARABTERM is finding its way into that political level. Only time will tell what happens next.

ALECSO's influence continues through the work of one of its bureaus, the Arabization Coordination Bureau (BCA), which has set the standards and methods for standardizing technical Arabic terminology that have been adopted by ARABTERM. It is also worth mentioning that ARABTERM's headquarters are found in the same building as the BCA's headquarters in Rabat. Several BCA employees form the editorial board of ARABTERM along with employees from the German-Jordanian University.

This cooperation between ARABTERM and the BCA is crucial as they can both support each other in different aspects. ARABTERM needs the BCA as a partner with strong ties to education ministries and academies in the Arab world. The status held by the BCA in the field will, therefore, help promote ARABTERM and allow it to gain recognition. The BCA, too, can gain a sort of rejuvenation through its work with ARABTERM. An exciting new project such as this one could gain the interest of the younger generations that the BCA previously found difficult to reach.

The BCA has indeed made efforts to keep up with modern times. One of the steps they have taken is to make their trilingual terminology databases and publications available online through

their website. However, the scarce financial capacity of the bureau makes it difficult to do much more. Many copies of the dictionaries produced by the BCA remain in storage because shipping is too costly[3]. Considering that this bureau is responsible for coordinating arabicization efforts and standardizing terminology for all Arab countries, the weight it carries surpasses the means it has had to support itself. And so, after over 50 years of service, a dynamic and rapidly-growing terminology project like ARABTERM seems to be exactly what the BCA needs to help replenish its activities. Although ARABTERM is not the only online technical dictionary available, it does have a unique language combination and also provides an unprecedented type of interactivity for such a specialized Arabic dictionary. ARABTERM is in fact a very suitable complement to the BCA's online content and was therefore integrated into the Bureau's website.

3.2 Aims

This fields covered by the ARABTERM project are fields of great demand and increasing importance in the Arab world, like water technology, automotive engineering, renewable energies and electrical engineering. ARABTERM provides a huge amount of specialized technical terms in four languages (Arabic, English, French, and German) with definitions and graphics in Arabic. The dictionary boasts different features, the most important of which is perhaps the unification of the Arabic specialized terms for all Arab countries. This is attempted through the cooperation of the Arabization Coordination Bureau (BCA).

However, the ARABTERM project has also taken regional variations of the terms into consideration. So, when applicable, the 'standardized' term is not shown alone, but rather with some variations from Syria, Yemen, or Egypt, for example. ARABTERM does not see these variations as opposing standardization, but instead views them as an important part of the Arabic technical language, because regional variations will not die out and will continue to be used in technical fields. Therefore, it was important to show some possible variations of the terms around the Arab world.

In order to ensure the quality of the terminology, the ARABTERM translation team is made up of professionals with different areas of expertise who come together to agree on the best translation for the terms. The team includes specialized translators, academic experts, and terminologists. Agreeing on a term is not an easy process for the team members. They must make sure that the translated term is technically clear and precise, linguistically acceptable, and can be used in the different regions of the Arab world.Another important feature of the ARABTERM website is the forum of experts, which encourages discussions and questions by the users.

The aim of this project is not to make money, but instead to become an accessible and indispensable tool for the Arab people and to help fill the gap in terminology that has been growing over the years. Its main objectives are the transfer of knowledge (in cooperation with the German institutions involved) and the standardization of the Arabic technical language. Whether for students, teachers, specialized translators, engineers, or technical workers, ARABTERM is accessible to millions of people all over the world. What makes this project so special is that it provides exactly what is missing in specific technical fields: reliable and standardized terminology. The topics chosen for the ARABTERM volumes are meant to be

---

[3]This information was gathered during the author's personal visits to the BCA headquarters in April and July 2011.

fields which have not been sufficiently covered by other online term databases, and stand side by side with other works by the Arab language academies and the BCA that share the common objective.

ARABTERM presents itself as a modern response to the challenges faced today. Unlike most traditional print versions of technical dictionaries, this one has joined those easily accessible online for free; it is interactive, constantly-updated, attractive, and counts on the support of influential institutions. It is not in competition with other online dictionaries, but instead fills the gaps that are most evident in the technical world, by specializing in the topics most in need of standardization.

For too long, terminology work has been neglected and underestimated by technicians, workers, engineers, and even students. It has been consigned to language scholars, who create terminology that is sometimes incongruent with the reality of the people. ARABTERM has come to change that. It aims to provide terminology that is understandable, accessible, and at the same time unified for all Arab countries. This standardization will help save huge amounts of time, money and efforts and will promote efficiency and development.

3.3 ARABTERM and standardization

It's important to note that the terms in this technical dictionary are not finalized. Users are encouraged to suggest improvements and revisions to be taken into consideration by experts. Terminology is ever-changing and ARABTERM aspires to reflect that.

Nonetheless, standardization is an essential part of the dictionary. The goal is to provide reliable, easily-accessible terminology that can be used all over the Arab world. The standardized terms will be provided, but this does not necessarily mean they will be used by users. The use of different variations in certain regions is inevitable and does not pose a problem for ARABTERM, because its goal is first to provide what is not available and then, in second place, to standardize what is already there.

An ideal future solution to the problem of variation in modern scientific terms could be the instant, official translation of new terms. When a new concept emerges in a scientific field, an official Arabic translation should be released without delay. This would make it unnecessary for different institutions around the Arab countries to create their own translations, therefore reducing the formation of other variations. The question remains: Could ARABTERM eventually become influential enough to take on this task?

4. Concluding remarks

It must remain clear that the problems related to arabicization have nothing to do with the ability of the Arabic language to produce new terms. There is no doubt that the Arabic language is capable of evolving and accepting new terminology. However, whether an Arab country decides to pursue arabicization (in university courses, for example) may be directly linked to the political trends of the country in question. The power of a political decision in terminology issues must not be underestimated. Various governments have supported the standardization of terminology in their countries. Ḫalīfah (1987: 33) mentions the example of France, a country that had five

different major language academies. Standardization only began after a political decision –by the president himself- was made in 1975.

Political decisions undoubtedly play a large role in arabicization, but in the end the success or failure of translated specialized terms lies in the hands of the people; are teachers and professors using standard terminology in their classes? Are students learning it? Are these terms being used in the workplace? Are translators using this terminology in their work? In the end, all the arabicization efforts that have been made were exerted for the sake of the people.

ARABTERM was made to reach people. The project coordinators might be able to get some things done on the political or academic level, but ultimately, it is the people who will decide whether ARABTERM fulfills its mission successfully or not. The first phase of the project will be a difficult one, but once this dictionary spreads and is used by students, teachers, and workers, their level of dependence on it will be the ultimate test of its quality.

Today the Arabic language is not that closely associated with modern technology and scientific development. But Arabic used to be a very technical and scientific language, and has proven time and again that it is capable of overcoming the different obstacles that time brings. The problems of modern technical terminology can be solved, and theArabic language can regain its status as a technical language.

REFERENCES

Al-Haq, F.A.andA.Al-Olimat. 2002. Language and Politics in Jordan. In S.G. Obeng and B. Hartford (eds). *Political Independence with Linguistic Servitude: the Politics about Languages in the Developing World*. New York: Nova Publishers. 151-196.

Al-Manāwy, M.F. 2003.ʾāzmat al-taʿrīb (the crisis of arabization). Cairo: markaz al-ʾāhrām littarǧamah wa annašr.

Badawi, M. 1997. *Probleme des Fachwortschatzes im Arabische* (problems oftechnicalvocabularyin Arabic). Hildesheim: Georf Olms Verlag.

Fahmy, Ḥ.Ḥ. 1961.al-marǧiʿ fī taʿrīb al-muṣṭalaḥāt al-ʿilmiyyah walfanniyyah walhandasiyyah (the reference for the arabicization of scientific, technical and engineering terminology). Cairo: maktabat al-nahḍah al-maṣriyyah.

Gasser, Y. 2004. Wege zu einer standardisierten Unternehmensterminologie (towards standardized corporate terminology). In: J.E. Susanne Göpferich. (ed.). *Qualität fachsprachlicher Kommunikation* (The Quality of Specialized Communication). Tübingen: Gunter Narr, 235-260.

Ḫalīfah, A. 1987. In *al-luġah al-ʿarabiyyah wattaʿrīb fī al-ʿaṣr al-ḥadīṯ* (the arabic language and arabization in the modern era). Amman: maǧmaʿ al-luġah al-ʿarabiyyah al-ʾurduny.

Ḫasarah, M. 1994.attaʿrīb wattanmiyah al-luġawiyyah (arabization and language development). Damascus: dār al-ʾāhāly.

Ḫraīweš, R. 2000. taʿrīb al-taʿlīm al-jāmiʿy waʾahamm al-mašākil allaty tuwāǧihuhu(the arabicization of university education and the most important problems it faces). *al-lisān al-ʿaraby*, 63-70.

Ḫraīweš, R. 2002.ḥarakat attaʿrīb fī al-urdun (the arabization movement in jordan). Amman: wazārat al-ṯaqāfah.

Zaydān, Ǧ. 1988.ʿal-luġah al-ʿarabiyyah kāin ḥay (the Arabic language is a living being). Cairo: dār al-hilāl.

INTERNET SOURCES

ARABTERM - GIZ GmbH (n.d.) A. Available at: www.arabterm.org accessed 29 January 2013.

BBC World Service (n.d.). Learning English - *Moving Words*. Available at: http://www.bbc.co.uk/worldservice/learningenglish/movingwords/shortlist/mandela.shtml accessed 29 January 2013.

Raddawi, R. and S. Rifai, 2006. *Arabicized ICDL: Towards a Concrete Step in Standardization*. Available at:K@ta: a biannual publication on the study of language and literature: http://puslit2.petra.ac.id/ejournal/index.php/ing/article/viewFile/16468/16460accessed 1 May 2011.