

Arabic neologisms in IT terminology: the role of the Academies

Cristina Solimando



Édition électronique

URL : <http://journals.openedition.org/beo/4910>

DOI : [10.4000/beo.4910](https://doi.org/10.4000/beo.4910)

ISSN : 2077-4079

Éditeur

Presses de l'Institut français du Proche-Orient

Édition imprimée

Date de publication : 1 avril 2017

Pagination : 123-133

ISBN : 978-2-35159-731-6

ISSN : 0253-1623

Référence électronique

Cristina Solimando, « Arabic neologisms in IT terminology: the role of the Academies », *Bulletin d'études orientales* [En ligne], LXV | 2017, mis en ligne le 01 avril 2019, consulté le 06 janvier 2021.

URL : <http://journals.openedition.org/beo/4910> ; DOI : <https://doi.org/10.4000/beo.4910>

Arabic neologisms in IT terminology: the role of the Academies

Cristina SOLIMANDO

Résumé : Cette contribution se focalise sur la traduction de la terminologie informatique en langue arabe. Les innovations dans ce domaine et l'usage toujours plus répandu des ordinateurs dans la vie quotidienne ont obligé les communautés non-anglophones à chercher des expressions et des mots nouveaux pour exprimer un univers nouveau. Les Académies de langue arabe encouragent l'usage des mots non-étrangers mais l'absence de coordination entre elles a amené à une pluralité de solutions dans les dictionnaires spécialisés et dans les manuels. Malgré les résistances des puristes de la langue, plusieurs stratégies complexes ont été adoptées dans le but de trouver des solutions convenables : l'analyse de ces stratégies constitue l'objet de cette contribution.

Mots-clés : lexique de l'arabe, langage informatique, néologismes, innovation lexicale.

Abstract: This contribution focuses on the rendering of IT terminology in Arabic. The innovations in this field and the use of computers in everyday life have forced the non-Anglophone countries to find new terms to express a new world. The Academies of Arabic language encourage the non use of foreign terminology but the absence of coordination among them has led to the variety of solutions in specific dictionaries and manuals. Despite purist resistances, complex and different strategies have been adopted in order to solve the problem: the analysis of these strategies represents the core of this contribution.

Keywords: Arabic lexicon, IT language, neologisms, lexical innovation.

ملخص : تتمحور هذه المقالة حول مسألة ترجمة المصطلحات الحاسوبية إلى اللغة العربية فالتجديد اللغوي المستمر في هذا المجال والانتشار المتزايد للمعلوماتية في الحياة اليومية أجبرا الناطقين بغير اللغة الإنكليزية على البحث عن مفردات وتراكيب جديدة للتعبير عن هذا العالم الجديد. وإذا كانت مجامع اللغة العربية تدعو إلى استخدام الكلمات غير الأجنبية فإن انعدام التنسيق فيما بينها أدى إلى ظهور أشكال متعددة للتعبير عن هذه المستجدات وحلول مختلفة لها باختلاف القواميس والنصوص المتخصصة في هذا المجال. ورغم مقاومة دعاة الحفاظ على نقاء اللغة العربية من أي تأثير أعجمي ، فقد

تم تبني استراتيجيات معقدة ومتعددة لإيجاد الحلول المناسبة لهذه المستجدات وسيكون تحليل هذه الاستراتيجيات موضوع هذه المداخلة.

الكلمات المحوريّة: معجم اللغة العربيّة ، المصطلح الرقمي ، استحداث الكلمات ، تجديد المفردات.

Introduction

The impact of IT (Information Technology) innovations on contemporary society and the use of computers in everyday life have forced the non-Anglophone countries to find new terms to express a new world. Most languages have adopted English terminology, in some cases not without purist resistances, since this represented the most practical way to solve the problem.

After the translation movement during the Abbaside period and the linguistic influences during the Renaissance (*Nahḍa*), Arabic must once again deal with a huge quantity of terms and new concepts that need to be introduced into its linguistic system. Years after the introduction of IT in the Arab world, we witness the lack of standardisation of scientific vocabulary. Specific dictionaries present multiple equivalents of an English term. The Academies of Arabic language encourage the non use of foreign terminology but the absence of coordination among them has led to a variety of solutions in specific dictionaries and manuals. Moreover, the history of languages has shown how abstract and unrealistic this approach is: a large proportion of neologisms have emerged outside the Academies. Only actual use qualifies the neologism as a new term of the language.

Despite the efforts made in this field, the difficulties in the process involving the process of word-formation and the construction of an appropriate and homogeneous body of terminology are evident and tangible. A neologism may be considered acceptable when it respects the syntactical rules as in the expressions *al-ḥāsūb al-daftari* ‘notebook computer’, *muḥarrrik al-baḥṭ* ‘search engine’, *dākirat al-wuṣūl al-‘ašwā’i* ‘Random Access Memory’ which are built according to the main rules of Arabic syntax which impose the postposition of the adjective. The correctness of the expression is one of the conditions for the existence of the new construction. However, the acceptability of a neologism should be valued not only from the perspective of formal correctness, but also in relation to the acceptance allotted by the linguistic community through spontaneous use of the term. Moreover, the new term must univocally indicate its referent: the translation *al-ḥāsūb al-maḥmūl* ‘laptop’ is, for instance, imprecise, because it refers generally to a “portable computer”. As such, we are unsure if it is a laptop, or a notebook, or a palmtop.

Even the word ‘computer’ has different renderings in Arabic: *ḥāsūb*, *kumbyūtir*, *rattāba*, *ḥāsib iliktrūnī* according to the French or English origin of the term. For instance, *rattāba* comes from ‘ordinateur’ and *ḥāsūb* from ‘computer’.

The difficulties highlighted in several contributions published in the journals of the Academies of Arabic language are expressed in terms of *tawlīd al-muṣṭalaḥ* ‘terminology-construction’ and *tawḥīd al-muṣṭalaḥ* ‘unification of the terminology’: the first is affected by the decrease in word-formation creativity, although the Academies have put forth different morphological patterns (NĀṢIR 2006). The terminological difficulties reflect a general incapacity in creating knowledge, which necessitates “receiving” terms that are sometimes remote from the Arabic linguistic and cultural reality. According to ‘Abd al-Mağīd Naṣīr (2006), member of the Jordan Academy, the issue of the homogeneity

(*tawhīd*) of technical terminology requires the responsibility of everyone participating in this field: those who write technical texts should refer to the extant terminology and abstain from creating new terms.

IT and neologisms in Arabic: lack of standardisation

The issue of technical translation implies the contribution of the Academies as well as associations involved in the creation and organisation of the Arabic lexicon in specific dictionaries. Among them, it is worth mentioning both the ASMO (Arab Standardisation and Metrology Organisation) of Amman, which works on the arabization of ISOterms ¹, and the Arab Organization for Administration Sciences, a pan-Arab organization that works in the production of technical terms and that, in 1982, published the *Unified Dictionary of Computer Terminology*. Further, another important institution is the Office for the Coordination of Arabization (*Maktab tansiq al-ta'rib*) founded in 1961 in Rabat. It has dealt with the codification of computer fonts in Arabic. Finally, some universities, such as the King Abdulaziz University of Jedda, the King Faisal University and the University of Technology of Baghdad, have also contributed to the coining and the arrangement of techno-scientific terms in specific glossaries.

None of these Academies, associations and universities have succeeded in finding a point of convergence and unity in the terminological choices suggested, and the lack of agreement has led to the presence of different equivalents for the same foreign term. For instance, the word *mobile* in Arabic has at least seven possible corresponding words: *silulir*, *mubāyl*, *burtābl*, *maḥmūl*, *ḡawwāl*, *khilyawī* and *naqqāl*.

As Elmagrab (2011) has already demonstrated, the influence exerted by English or French on a specific Arabic-speaking area represents an important element of explanation for the emergence and variety of a neologism:

English	>	Arabic	French	>	Arabic
billionaire		<i>bilyūnīr</i>	milliardaire		<i>milyārdīr</i>
mobile (phone)		<i>mubāyl</i>	cellulaire		<i>sīlūlīr</i>
nitrogen		<i>naytruḡīn</i>	azote		<i>azūt</i>
AIDS		<i>īdz</i>	SIDA		<i>sīdā</i>

This phenomenon occurs mainly in the spoken language, where the influence of foreign languages is stronger. Moreover, the vernaculars seem more receptive to borrowings. It should be added that technical subjects are taught using English or French manuals, which, consequently, causes young students to resort to loanwords in speech. In the following

1. ISO (International Organisation for Standardisation), founded in 1946, includes national organisms of standardisation from 75 countries.

table, we quote a short sample of computer terms as variously translated in Arabic lexicons. Our sources have been selected on the basis of their target: besides standard lexicons we analysed those addressing a large audience, such as the Microsoft Language Portal and Wikipedia.

English terms	Arabic translations	Sources
hardware	<i>aǧhiza</i>	• Microsoft Language Portal
	<i>ʿatād</i>	• Al-Qāmūs al-tiqnī al-maʿlūmātī inǧilīzī-ʿarabī, 2013 • Dictionnaire de l'Informatique, 1986
	<i>ʿatād al-ḥāsūb</i>	• Wikipedia
	<i>muʿiddāt al-kumbyūtir</i>	• Arabic Computer Dictionary, 1986
	<i>al-mukawwināt al-mādiyya</i>	• Dictionary of Computers, 1995
hard disk	<i>al-qurṣ al-tābit</i>	• Al-Qāmūs al-tiqnī al-maʿlūmātī inǧilīzī-ʿarabī, 2013
	<i>al-qurṣ al-ṣulb</i>	• Dictionary of Computers, 1995 • Wikipedia
	<i>uṣṭuwāna ṣulbiyya</i>	• Arabic computer dictionary, 1986
installation	<i>taṭbīt</i>	• Microsoft Language Portal • Al-Qāmūs al-tiqnī al-maʿlūmātī inǧilīzī-ʿarabī, 2013
	<i>tarkīb</i>	• Arabic computer dictionary, 1986
	<i>taṣṣīb</i>	• IT & Computer glossary, scholarabia.net, 2002 • Wikipedia
online	<i>muttaṣil</i>	• Microsoft Language Portal • Al-Qāmūs al-tiqnī al-maʿlūmātī inǧilīzī-ʿarabī, 2013
	<i>ʿabra al-Intirnīt/ʿalā al-Intirnīt</i>	• Al-Qāmūs al-tiqnī al-maʿlūmātī inǧilīzī-ʿarabī, 2012
	<i>fi al-ḥaṭṭ</i>	• Dictionnaire de l'informatique, 1986
reset	<i>iʿādat ḍabṭ</i>	• Dictionary of computers, 1995
	<i>ḍabṭ ṭānī</i>	• Arabic computer dictionary, 1986
	<i>istibdāʿ</i>	• Wikipedia
	<i>taṣfīr</i>	• Al-Qāmūs al-tiqnī al-maʿlūmātī inǧilīzī-ʿarabī, 2012
	<i>iʿādat taʿyīn</i>	• Microsoft Language Portal
router	<i>mufriʿ</i>	• IT & Computer glossary, scholarabia.net, 2002
	<i>muwaǧǧih</i>	• Microsoft Language Portal • Al-Qāmūs al-tiqnī al-maʿlūmātī inǧilīzī-ʿarabī, 2012
	<i>muḥaddid al-masār</i>	• Arabic computer dictionary, 1986
	<i>musayyir</i>	• Wikipedia
stand-by	<i>istiʿdād</i>	• Microsoft Language Portal • Wikipedia
	<i>iḥtiyāṭī</i>	• Arabic computer dictionary, 1986 • Al-Qāmūs al-tiqnī al-maʿlūmātī inǧilīzī-ʿarabī, 2012
	<i>fi al-intizār</i>	• Dictionnaire de l'informatique, 1986

volatile memory	<i>ḍākira mutaṭāyira</i>	• Al-Qāmūs al-tiqnī al-maʿlūmātī inḡilīzī-ʿarabī, 2012
	<i>ḍākira ġayr mustaqirra</i>	• Arabic computer dictionary, 1986
	<i>ḍākira mutabahhira</i>	• Dictionnaire de l'informatique, 1986
	<i>ḍākira mutalāšiya</i>	• Dictionary of computers, 1995

The case of acronyms and abbreviations is not different (YOUSIF 2010). They are widely used in English terminology and their transcription or translation does not always entail a practicable solution. In Arabic texts they are often quoted in Latin characters followed by the translation of the signification in brackets or, when possible, simply transcribed. The coexistence of Latin and Arabic characters used to represent acronyms and abbreviation is the mirror of the general instability within the IT lexicon:

ADSL (Asymmetric Digital Subscriber Line)	<i>ḥaṭṭ ištirāk raqmī ġayr mutamātil</i>	• IT & Computer Glossary, 2002
	<i>ḥaṭṭ al-muštarak al-raqmī ġayr al-mutazāmin</i>	• Al-Kilani Dictionary of Computer and Internet Terminology, 2004
	ADSL	• Microsoft Language Portal
ASCII (American Standard Code for Information Interchange)	<i>askī</i>	• Al-Qāmūs al-tiqnī al-maʿlūmātī inḡilīzī-ʿarabī, 2013 • Wikipedia
	<i>laġna amrikiyya li-qiyāsiyya tabādul al-maʿlūmāt</i>	• Al-Qāmūs al-tiqnī al-maʿlūmātī inḡilīzī-ʿarabī, 2013
	<i>šayfara</i>	• Dictionnaire de l'Informatique, 1986
	ASCII	• Microsoft Language Portal
ROM (Read Only Memory)	<i>ḍākirat al-qirāʾa faqaṭ</i>	• Arabic Computer Dictionary, 1986
	<i>rūm</i>	• Dictionary of Computers, 1995
	ROM	• Microsoft Language Portal
Modem ²	<i>mūdīm</i>	• Al-Qāmūs al-tiqnī al-maʿlūmātī inḡilīzī-ʿarabī, 2013 • Microsoft Language Portal • Wikipedia
	<i>muḍmān</i>	• Wikipedia
	<i>mūdīm</i>	• Arabic Computer Dictionary, 1986
	<i>muḍšaf</i>	• Dictionnaire de l'Informatique, 1986
USB (Universal Serial Bus)	<i>nāqil tasalsulī ʿāmm</i>	• Al-Qāmūs al-tiqnī al-maʿlūmātī inḡilīzī-ʿarabī, 2013
	<i>nāqil mutasalsil ʿāmm</i>	• Wikipedia
	USB	• Microsoft Language Portal

2. The term 'modem' is composed by two syllables of two different words "mo(dulator)" and "dem(odulator)" and it can be considered an acronym.

Cases such as *al-ḥaṭṭ al-muštarak* and *ḥaṭṭ al-ištirāk* 'ADSL' have been considered variants despite their derivation from the same root since they represent the "symptom" of a general non-standardisation in terminological use. Moreover, we quoted as a different term the use of the transcriptions in Latin characters, since this is conceived here as a different choice.

Coining strategies

In its linguistic history, Arabic has resorted to different strategies to coin new words: the variety of solutions adopted is evidence of the vitality of this language. One of the most productive strategies is the derivation or *ištiqāq*, a morphological term used to refer to the mechanism of word formation through affixal morphemes applied on a root. The construction of a new term from an existing Arabic root has always been considered the most natural strategy of enrichment of the Arabic language. In this process, the radicals are not altered but new forms are built upon as happens in the verbal derived forms, in the active and passive participles, in the nouns of instrument, place, profession etc. This is the strategy preferred by the Academies, since it represents the most natural mechanism of word-formation. Some terms coined in this way are:

<i>mušādaqa</i>	authentication
<i>murfaq</i>	attachment
<i>iḥtiyāt</i>	backup
<i>mustaʿrid</i>	browser

Besides the main three categories of *ištiqāq*³, a more recent and highly productive strategy is the *ištiqāq bi-l-tarǧama* or *al-ištiqāq al-maʿnawī* which is used to introduce new terms through the translation of a foreign word's signification. The Academies have approved this approach as in the following cases:

<i>rusūm mutaḥarrika</i>	cartoons
<i>mukabbir al-ṣawt</i>	microphone
<i>makābiḥ al-ḥaraka</i>	brake

The *istinbāt* represents yet another instrument of lexical enrichment: it consists of semantic extension, sometimes through the use of archaic words provided with a new meaning. Some terms suggested by the Academies have not met with success, such as

3. *Al-ištiqāq al-ṣaǧīr* consists in the application of morphological models to Arabic roots; *al-ištiqāq al-kabīr* 'large derivation', in which the *maʿnā*, the actual sense of the root, is preserved, but not the order of succession of radicals (processus of *qalb* 'metathesis'), and *al-ištiqāq al-akbar* 'largest derivation', consisting in the transformation of the root in which neither the sense of the root nor the succession of radicals are preserved (*ibdāl*).

irzīz ‘trembling, something which produces noise’, *ṭirbāl* ‘high building’ and *ḡammāz* ‘fast-walking’ in place of, respectively, *tilifūn* or *hātif* ‘telephone’, *nāṭihat al-saḡāb* ‘skyscraper’ and *trām* ‘tram’. Terms which have, on the other hand, been successful include for example:

<i>qiṭār</i>	‘sequence of camels’	>	‘train’
<i>ḡarīda</i>	‘sheet of palm’	>	‘journal’
<i>bīʿa</i>	‘place’	>	‘environment’
<i>hātif</i>	‘who cries out’	>	‘telephone’

A very productive strategy, which is preferred among speakers especially in informal speech, is the *taʿrīb* ‘arabization’ of the foreign words. The process of arabization is a process of naturalisation; therefore, it has to satisfy the phonetic and graphical rules. *Falsafa* ‘philosophy’ or the more colloquial *talfana* ‘to call on the telephone’ are cases of the perfect adaptation of terms combining foreign radicals with the Arabic morphological scheme *faʿlala*. In other cases, the assimilation of the borrowing is limited, for example, to the use of the prosthetic *hamza* as in *ifrīz* ‘frieze’⁴, or the use of an additional vowel on the first radical, as in *fulūr* ‘flour’.

The adaptation of loan words is often realised through the assimilation of the word within the linguistic system: for instance, from *falsafa* we have *mufalsif* beside *faʿlasūf* ‘philosopher’, *mutafalsif* ‘pseudo-philosopher’. Resorting to morphological stratagems, such as the use of affixes, permits the integration of the term as can be seen in the cases quoted above, in which it is sometimes difficult to identify the word as foreign.

This strategy was also theorised by ancient grammarians and lexicographers as a mean to enrich Arabic: it is used to distinguish between *taʿrīb ṣiyāḡī* ‘formal arabization’ and *taʿrīb ṣawṭī* ‘phonetic arabization’. In the first category, the loan word is modelled according to Arabic morphological patterns, while in the second it respects the phonological constraints. This is the case, for instance, for the term ‘television’: it can be rendered *tilfāz/talfaza* according to the *taʿrīb ṣiyāḡī* and *tilifizyūn* according to the *taʿrīb ṣawṭī*.

IT terminology, like other technical lexicons, is rich in terms obtained in this manner:

<i>kumbyūtir</i>	computer
<i>intirnīt</i>	Internet
<i>mīḡābayt</i>	mega byte
<i>mīkrūfūn</i>	microphone
<i>mūdīm</i>	modem
<i>rādār</i>	radar
<i>tītrābayt</i>	tetra byte
<i>fīdyū</i>	video

4. The use of the prosthetic *hamza* is relatively rare and denotes a more ancient borrowing or an academic purism. See Rolland 2014.

This method is not always supported by the academicians, since it exposes Arabic language to the risk of “corruption” and denaturalisation, as shown in the following paragraph.

The word-formational process *naḥt* (blending) consists of merging two lexical units that function autonomously to express a new concept. This process sometimes involves the contraction of one of the two units, as in *ra'smāl* ‘capital’ (*ra's* ‘head’ + *māl* ‘riches’), *kahramaġnāṭīsī* ‘electromagnetic’ (*kahrubā'ī* ‘electric’ + *maġnāṭīsī* ‘magnetic’) and *barmā'ī* ‘amphibious’ (*barr* ‘land’ + *mā'* ‘water’). Until now, the blending process has, in fact, been completely lacking in governing rules. Moreover, these constructions, even if extant and understood by speakers, are not commonly shared: for instance, *šabakīn* ‘Internet’ is derived from *mutašabkin* ‘internet user’ and the verb *šabkana* ‘to browse’ formed by *šabaka* + *bayniyya* which, compared to *šabakat al-intirnīt* or simply *intirnīt*⁵, are not widely used. In the end, not being a natural process within the Arabic linguistic system, this strategy is rarely employed.

The Academies of Arabic language and the struggle against foreign languages

Several contributions in the journals published by the Academies⁶ have discussed the role of the Arabic language in the field of computer sciences. The spread of new technologies and Internet are considered challenges that Arabic has to face; however, they could, in addition, also represent an opportunity for linguistic renewal (ḤALĪFA 2004). The era of globalisation and the IT revolution involve some linguistic risks: Arabic constitutes the mean of mediation between users and new platforms of communication and, for this reason, it has to preserve its formal correctness from the morphological, syntactical and semantic point of view (ḤALĪFA 2004, p. 14). Most scholars⁷ have found a twofold solution: with regard to the users themselves, they invite the institutions to strengthen Arabic teaching in school. They complain about the predominance of English and French in the teaching of scientific subjects in secondary school and university. Arabic terminology must be assimilated by the language’s speakers and its use in schools is a primary and fundamental means to achieve this. The other solution concerns the technology itself: « *Yaġma' ulamā'u-nā dawū al-riyāda fī ḥidmat al-luġa al-ʿarabiyya ḥāsūbiyyan ʿalā wuġūb binā' aġhiza ḥāsūbiyya ḥāṣṣa bi-al-luġa al-ʿarabiyya. Yaġibu iḥdā' tiktūlūġiyā al-ma'lūmāt li-ḥidmat*

5. The Academy of Arabic language of Damascus also suggests *šābika*.

6. Some of them are available on the Academies’s websites such as <http://www.majma.org.jo> and <http://www.arabicacademy.org.eg/>.

7. As instance, see al-ʿAnāṭī, *al-Dalil naḥwa binā' qā'idat bayānāt li-l-lisāniyyāt al-ḥāsūbiyya al-ʿarabiyya*, p. 675, available at <https://www.uop.edu.jo>.

al-luġa al-‘arabiyya »⁸. This approach pays no heed to the fact that the global nature of Internet and the rapidity of diffusion of IT technologies make it unrealistic as a hypothesis. The absence of coordination among the Academies is probably the obstacle to overcome: despite the exhortations of individual scholars, the Centres of Arabic language continue to ignore each other and to publish their own particular lexicons: this attitude makes the homogeneity of the terminology - the first step before its teaching in schools - an uncertain target.

In order to set a uniform terminology some conditions have to be respected⁹:

- One-to-one correspondence between technical terms and their referents;
- Preference towards a traditional (*turāṭ*) word in the arabization of the foreign term; when not possible, the arabization has to respect the formal constraints of Arabic;
- Collaboration among scientists, researchers and linguists;
- Events, such as meetings and symposiums, in order to permit contacts between users and the centres of language involved in the field of terminology;
- Colloquial terms have to be avoided and, if very widespread in common use, they must be quoted within brackets.

The last condition reflects the general attitude of the Academies: their distance from actual use of language, is probably one of the causes of the artificiality and the inefficacy of some of the choices they make. When communicating with one another, people choose the terms they consider appropriate without giving any thought to the purist approach: only the acceptance of spontaneous neologisms can successfully lead to a realistic and deep discussion of this phenomena. The arabization of the foreign words is easier and immediate for a native speaker: Social Networks and texts addressed to a large audience are rich in arabized terms (WILMSEN & YOUSSEF 2009). The wariness shown toward this reality, even if motivated by the aim to preserve the purity of the Arabic language, “collides” with the widespread and undeniable use of this terminology. Moreover, the distance between MSA and vernaculars is diminishing: the emergence of tendencies preferring dialect in fiction and the proliferation of new means of communication, such as Social Networks, encourage an investigation of the changes currently taking place in the use of Arabic, both standard and colloquial.

Conclusion

Despite the efforts of last decades, a homogeneous and stable IT terminology is still far from being becoming an achievable target. The rigidity of the Academies in avoiding borrowings from foreign languages and in encouraging the resort to Arabic roots comprises

8. “Scholars who put their experience at the service of the Arabic language in the field of IT agree upon the necessity of building specific devices in Arabic. It is necessary to bend IT to the Arabic language”. ‘Abd al-Karīm Ḥalīfa, *Ibid*, p. 15.

9. Z. Ṭala‘ī, *Tarġamat al-muṣṭalaḥ al-tiqnī min al-luġa al-inkilizīyya ilā l-luġa al-‘arabiyya*. PhD Thesis available at: <http://dspace.univ-tlemcen.dz/bitstream/112/4960/1/talae-zakia.pdf>.

part of the problem: as shown in this contribution, arabized forms coexist beside the Arabic coined term. The confusion and uncertainty regarding the use of IT terminology derive from the different new words suggested by Academies, centres of IT terminology and even individual translators.

Derivation (*ištiqāq*) represents the most “natural” strategy for coining words but for technical expressions it is not always immediate from the point of view of comprehension. The most productive coining strategy, in terms of real use, is the arabization (*taʿrīb*) of the English terminology. Language is not a static product of the ancient inheritance; rather, it is a complex combination of dynamic tendencies toward changes that Academies have to accept by surmounting their purist attitude. In the present-day, the main task of the Academies is to revitalise their set of rules providing language with more flexibility and functionality in order to adapt to modern communicative needs beyond the rigid boundaries between English/Arabic and MSA/Colloquial varieties.

Bibliography

- ʿANĀTĪ A. (al-) 2008, « Al-dalīl naḥwa bināʾ qāʿidat bayānāt li-l-lisāniyyāt al-ḥāsūbiyya al-ʿarabiyya », *Mağallat al-lisāniyyāt* 14-15, p. 669-728.
- ELMAGRAB Ramadan Ahmed 2011, “Methods of Creating and introducing new terms in Arabic”, International Conference on Languages, Literature and Linguistics, *IPEDR* 26, Singapore, IACSIT Press, p. 491-501.
- ḤALĪFA ʿAbd al-Karīm 2004, “al-Mağāmiʿ al-luğawiyya al-ʿilmiyya al-ʿarabiyya wa al-tanmiya al-luğawiyya”, *Mağallat mağmaʿ al-luğa bi-l-Qāhira* 102, p. 113-133.
- NAṢĪR ʿAbd al-Mağīd 2006, “Al-fağwa al-raqmīyya fī al-luğa al-ʿarabiyya”, in *Al-Mawṣim al-taqāfi al-rābiʿ wa-l-talāṭūna*, Amman, *Mağmaʿ al-luğa al-ʿarabiyya al-urdunī*. [Online] <http://www.majma.org.jo/?p=578>.
- ROLLAND Jean-Claude 2014, *Etymologie arabe : dictionnaire des mots de l'arabe moderne d'origine non sémitique*. Thèse de doctorat, Lyon, ENS.
- ṬALAʿĪ Z. 2014, *Tarğamat al-muṣṭalaḥ al-tiqnī min al-luğa al-inkilīziyya ilā al-luğa al-ʿarabiyya*, PhD Thesis, Tlemcen, University of Tlemcen.
- WILMSEN David & YOUSSEF Riham O. 2009, “Regional standards and local routes in adoption techniques for specialized terminologies in the dialects of written Arabic”, *The Journal of Specialized Translation* 11, p. 191-208.
- YOUSIF Elias 2010, “Arabic Terminology. Adaptation and Innovation”, *Babel* 56/4, p. 313-327.

Dictionaries and Lexicons

- Al-Kilani Dictionary of Computer and Internet Terminology*, Beyrouth, Librairie du Liban, 2004.
- Al-Qāmūs al-tiqnī al-maʿlūmātī inğilīzī-ʿarabī*, [Online] <http://wiki.arabeyes.org>.
- Dictionnaire de l'Informatique*, Paris, Larousse, 1986.
- Dictionary of Computers*, Cairo, Academy of Arabic Language, 1995.
- Arabic Computer Dictionary*, London, Routledge, 1986.
- Microsoft Language Portal*, [Online] <http://www.microsoft.com>.

