LINGUISTIC MECHANISMS OF IT (COMPUTERS) VOCABULARY FORMATION IN ROMANIAN LANGUAGE

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Abstract: The language the computer experts use, its conditions and its developing are tributary, like any other technique language, to the progress of science, the technological evolution, and the changes in technical practice. We assist on the birth of a new lexical field, starting from an already build one in another foreign language. We tried to analyse the procedure in which our language receives this field, in order to adapt it, incorporate it and translate it; the Anglo-American linguistic material borrowed and kept without changing its form, or morphologically adapted or even translated; the translation from other language having the bigger number of problems – theoretical, linguistic and philosophical. A study of informatics' vocabulary should tackle with the problem of loan words as well as with the interpretation an adaptation of these terms.

The social, economic and psychological elements have an important influence on formation, evolution, utilisation of Informatics vocabulary, and the main problem has been the exact correspondence of technical terms, from one language to another. There has been a tendency to normalize, focus this lexical movement, taking in to account the steps of this formation process and its conditioning elements. The relation between terminology and lexicography is a real problem. The interdependence between the different definitions of Informatics terms and their interpretation by unwary, usual men, place the general dictionaries (with their semi-open codes) between specialised language and every day one.

Keywords: IT / common vocabulary, general dictionaries, specialised language.

Introduction

Renewing and enriching the vocabulary is done either through lexical neologisms from other languages, either through the use of internal resources, in particular through derivation and compounding, by using either the translation or language compilation[1].

The formation of the words is „*one of the most important chapters*", not only in the study of vocabulary, but especially in the whole diachronic and synchronic structure of a language, because it describes the mechanism of internal lexical creation of the language, the capacity to generate meanings, words, forms, and new phrases, relying primarily on its own resources.[2]

On the one hand, Theodor Hristea[3] includes the formation of words within morphology; systematic character beings visible especially if deriving them. According to the same linguist, compounds belong to syntax, and changing the grammar value is linked to morphology and syntax. On the other hand, a number of linguists [4] consider that the system of forming the words must be included in the study of vocabulary and, more specifically, in that

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[1] Theodor Hristea, 1968, p. 21.
[2] Th. Hristea, 1984[2], p. 66, Al. Rosetti, 1968, p. 327, Petre Gheorghe Bârlea, 2009, p. 223.
[3] Alexandru Graur, 1972, pp. 163-170.
[4] Alexandru Rosetti, 1968, pp. 319-326.

of linguistic discipline called Lexicology. Thus, the formation of words is a chapter of Lexicology and contributes to the enrichment of vocabulary through creation of new lexical units based on those that already exist in one language, using the resources of that language.

Finally, there is also a third category of linguists,[5] which have the opinion that the formation of words is a separate branch of Linguistics; it occupies a place of transition between vocabulary and grammatical structure. In the Romanian language, it was often emphasized the role of forming words, signifying that it is one of the most important chapters of a language, as it can be noticed the creation of lexical or the way a language create new meanings and items.[6]

In the opinion of many experts, the formation of words related to Etymology. Unlike foreign etymology, which studies the inheritance and neologisms, which together form the etymological layers of a language, internal etymology studies the means by which a language can create new words, phrases, meanings.[7]

1. Formation of words in Romanian language through internal means of enriching the vocabulary

The main processes of forming words in the Romanian language by internals means are, as is well known: derivation, compounding and conversion (or changing the grammatical value). These internal means of vocabulary enrichment do not exclude basic words inherited or borrowed at various stages of the development of Romanian language, prefixes, suffixes from other languages and even foreign models used.

In forming and developing the scientific terminology, in our case the IT vocabulary, what is important is not only the relation between internal creations and words from other languages, but also the relationship between the different types of loans, because the linguistic contact language is a reality far more complex than we think and it is not reduced to the mere acquisition of words or word structures. The relationship between the various types of "loans" suggests: a) the relation between content and form;

b) the strict semantic relation between old and new meaning, between the principal and secondary meaning of the word;

c) the relation between the word and the elements of compounding or derivation.

In these cases, the issue is about the phono-morphological changes that the loan suffers, in accordance with the specifics of language it enters, and they depend, in turn, of the structural typology of equivalences, loan- loan-translation-translation.[8] The formation of words links to Phonetics, not only by the fact that the sounds are the material aspect of words and formations with which it operates, but also through the use of phonemes of created words: phonetic alternations in derivation and flexion, conditioned phonetic variants of forms, problems of break between the terms of compounds.

The spelling of certain suffixes used in the formation of words put special writing problems, either in the application of the principle of the morphological identification of constitutive elements of the word, or to maintain uniformity in the application of graphic appearance of an affix, or notation of phonetic variants in prefixes: *in-, con-, des-, răs-*. In what follows, we have tried to analyse the loanwords in Romanian language from English, without having to remember each time the computers or usual dictionaries, older or newer, which supplied the lexical material in question, but trying to clarify it directly, on the latter, on the linguistic criteria.

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[5] Miora Avram, 1970, p. 5.
[6] A. Rosetti, 1964, p. 319.
[7] Petre Gheorghe Bârlea, 2009, p. 223.
[8] Th. Hristea, 1984[2], pp. 103-106.

2. The loanwords

"The loan" or "the lexical loan" are wholly so the form and content of a foreign Word. By "lexical loan" or "loanword" we understand, broadly speaking, a simple term, i.e. without derivatives or compound forms and phraseological structures. The truth is, though, that the loanword also aims expressions, phraseological units, in other words, everything Louis Deroy called "total loanwords."[9]

This is the simplest and most commonly used language enrichment process (of taking a word together with reality, with the object it designates), in general, and specialized vocabulary, in particular. It can be considered as such when it is necessary and when it is treated as such in a given language[10]. Such loans, renewals of the lexical vocabulary, happen constantly, today perhaps more frequently than in the past due to technical terminologies, advertising and media. There is a feeling that the language does not change, in reality, each generation has had a number of words entered in the language and other words that had been removed.

Regarding the current Romanian language the *lexical loan* is determined by the fact that it is impossible to formally equivalence two meta-linguistic systems[11]; the word is not translated, but is transcribed and subsequently acquires an analytical description of the translator. Thus, being used with caution, it has the merit of being one of the most accurate methods, contributing to the internationalization of specialized terminology[12].

Of course, it is necessary to specify here some lexical and morphological aspects of the terms on the one hand, and on etymology, on the other hand. In the first category fall those words which bear the imprint of a compound or derived word in the original language in which the word has entered into service, but in English it was lexicalized for a long time and was not perceived as such, being taken as a base-word: *analog, digital, and fax, photo, feed, index, list, logic, menu, message, operation, computer, program, space, virus, xerox* etc.

In the second category, there are the words designating particular IT realities to that domain of a certain language. Those terms have entered from the English language, defining the term in question, in the form of specialized vocabulary. There are the cases of words like: *background, buffer[13]* < (FR., engl. *buffer*), *byte, bit, chip, cluster[14]* (< fr., engl. *cluster*), *compact disk, cross-barr[15], digitizer[16], email, fading, flash, floppy disk, hacker, hard drive, hardware, header[17], input, output, Internet, keyboard, layout, mouse, plotter[18], pointer[19]*, etc.

Although the main factor of the phenomenon is the need for a permanent linguistic loan of new words, the arguments, which explain the large number of Anglicisms in specialized terminologies, and particularly in computers language, are determined by the extra-linguistic and linguistic factors which manifest with particular poignancy in the current

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[9] Louis Deroy, 1956, p. 224.

[10] Ana Goldiş-Poalelungi, 1973, p. 65, Petre Gheorghe Bârlea, Roxana-Magdalena Bârlea, 2000, p. 66.

[11] Constantin-Ioan Mladin, 2004, p. 5,
http://www.litere.uvt.ro/vechi/documente_pdf/articole/uniterm/uniterm2_2004/cmladin.pdf

[12] *Ibidem.*

[13] MDN, 2007, *buffer* – „(inform.) zonă de memorie centrală a unui ordinator, intermediar de stocaj pentru informaţiile transmise de la un organ la altul.", doar cu etimologia franceză.

[14] *Idem, cluster* – „(mus.) efect sonor prin suprapunerea mai multor tonuri şi semitonuri sau numai semitonuri".

[15] *Idem, cross-barr* – „sistem de comutare prin bare comandate de relee, în telefonia automată".

[16] *Idem, digitizor* – „(inform.) dispozitiv care transformă undele curbe plane în caractere binare, corespunzătoare coordonatelor punctelor reprezentative".

[17] *Idem, header* – „(inform.) antet".

[18] *Idem, plotter* – „terminal al unui calculator pentru executat desene liniare definite prin coordonate; graf-plotter".

[19] *Idem, pointer* – „(inform.) element reprezentând o adresă pe baza căreia pot fi legate componentele unei structuri".

period[20]. An important role in languages transfer has the need of the specialists to equate a technical term in the Romanian language, the word borrowed from English by giving a non-existent reality for the speakers of the language who borrows or for the welcoming language which has not yet created a term[21] (for example, *freehand*[22], *freeware*[23], *fatware*[24], *firmware*[25], *hardware, software* etc); in most cases, the term implies an explanatory periphrastic equivalent without any practical use.

Some linguists have noted, over time, the fact that the use of existing terms for new concepts is more economical than a description of these concepts through internal resources, belonging to the language that borrows them, either directly, as happens in the last few decades in scientific, technical terminologies, or indirectly, as is the case of some English words in Romanian, coming from other languages, such as French, German or Russian, words that entered the Romanian language, especially, until the 80s.

Other main causes explaining the increased frequency of taking loans from English in the Romanian usual language, not only in the specialized terminologies are[26]: *the explosion of information* is a characteristic of contemporary society, *the global influence* of the English language, *discharging the ideological censorship* (after 1989), as the spring of numerous newspapers, magazines, radio stations and televisions, as well as the impact of the mass media, *the expressive power* that is obtained through using the English words. To all this, we must add the *greater and greater knowledge* of English among young people, who are, in fact, the beneficiaries of these recent technological changes. Some linguists consider this latter criterion as having a disruptive effect in the process of assimilation of Anglicisms,[27] since it seems that in media, the etymological writing forms from English are used.

In addition to these causes, which we can consider as positive factors in the process of contemporary Romanian language enrichment, we can see some negative phenomena, such as: *the convenience* of the speakers who prefer the loan instead of the equivalent that already exists in Romanian language; even at the level of experts or people from the press are often terms such as *applet, computer, display, download, icon, keyboard* or *to print,* instead of words in Romanian: *miniaplicaţie, calculator, afişaj / afişare, descărcare, pictogramă, tastatură* or *a tipări* etc.; a *compensatory response* that is currently, in some publications (not only in the technical ones) and on television, which uses a language invaded by Anglicisms, disturbing the process of communication; *the linguistic prestige*, a factor which sometimes works at the psychological level.

We believe that the tendency of *unification for international technical vocabulary*[28], the premise of organizing international congresses and national associations of standardization, where English became the donor of words in the scientific and technical terminology, as well as the creation of a *global system of interconnected computer networks* (Internet), which facilitates the communication services of data, where the English language is used, are technical criteria, which will be augmented ever more detailed in the future decades,

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[20] Radu Nicolae Trif, 2006, p. 22.
[21] Cf. Th. Hristea, 1984², p. 39-65; M. Avram, 1997², p. 11-14; G. Ciobanu, 1996, p. 63; Radu Nicolae Trif, 2006, p. 22.
[22] Ion-Victor Popa, 1999, *freehand* – „Aplicaţia principală dezvoltată de către compania americană Macromedia Corporation, axată pe proiectarea de grafice vectoriale".
[23] *Idem, freeware* – „Software oferit publicului utilizator gratuit".
[24] DC, 2005, *fatware* – „software supradimensionat".
[25] *Idem, firmware* – „soft de sistem din ROM".
[26] We used important information from: Radu Nicolae Trif, 2006, pp. 22-24.
[27] Mioara Avram, 1997², p. 14, cf. Radu Nicolae Trif, *op. cit*., p. 24.
[28] A. Bantaş, I. Constantinescu, P. Şendrea, 1983, p. 545; G. Ciobanu, 1996, p. 50-52; J. C. Sager, 1990, p. 125, *apud* Radu Nicolae Trif, *op. cit*., p. 24.

contributing to the enrichment of Romanian IT vocabulary, but also other international languages, by extra-linguistic intense contact.

3. Direct and indirect loanwords

Unlike most other languages, the spelling of the English language, on the one hand, does not tell us anything about the accent and pronunciation of a word. On the other hand, as an exclamation or interrogation point can change the meaning of a sentence, so words accents and intonations, descending or ascending, play important roles in the spoken language. A large number of languages spoken are based on the principle of phonemic writing, each phoneme of the language being labelled with a distinctive ligature, or relied on this principle in a previous stage of their evolution.

While in some languages, the phonetic changes occurred over the years, have updated gradually the writing mode, while remaining true to this principle (for example, the Romanian language), others have preserved the previous spelling and have enabled a progressive increase in the difference between the written and the spoken form of the language (e.g. English), following the etymological principle. Thus, the English words that have entered the written path in the Romanian language, present particularities closest to the orthography of the donor, without resuming the main rules between letters and sounds in that language, but following the rules of Romanian under certain conditions. These conditions could be systematized and codified, in Romanian Linguistics[29]. Likewise, the words that entered the language orally have been pronounced by the speakers, in accordance with the specifics of Romanian language, which means that their forms estrange from their native ones[30].

In both cases many problems are recorded for equivalence, especially in terms of sounds and letters found in the Romanian language, with variations, approximations and inconsistencies present in such situations.

4. The synchronic and diachronic adaptation of IT Romanian terminology

The adaptation of loanwords from English in computer terminology is not an easy issue, primarily because the two languages have important differences. As we mentioned earlier, the loans of Romanian language were taken from English via French language, which was better known by the Romanians, in the past. Thus, numerous Anglicisms were borrowed by Romanian once they have passed through the French language; we see here some changes (formal, semantic, morphological) on the French language. Accordingly, the etymology of some English words sends us to French, although they originally belonged to English vocabulary.

The use of certain terms is justified, since they do not have an equivalent in Romanian language. IT magazines abound in Anglicisms *hard, soft* (truncations from English - *hardware, software*), *high-def, Wi-Fi, views, reviews, inkjet printing, PC gaming, site,* etc. The English terms as "*site*" or "mouse" are very well known, being approached from the perspective of Romanian language by George Pruteanu, who proposed their Romanized writing: "*sait*", "*maus*". We noted that some IT or explanatory dictionaries took these forms, others keep their English forms or keep or use them incorrectly, in our opinion, the form of "*sit*" for "*site*" or "*sait*"[31].

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[29] Cf. Theodor Hristea, 1984[2], pp. 60-61.
[30] Cf. Ana Goldiş-Poalelungi, 1973, pp. 68-101.
[31] Cf. DC, 2005.

Conclusion

Regardless Globalization, we appreciate that we should not allow the massive intrusion of English terms, as long as there are correspondent terms in Romanian language. The media today is "invaded" by Anglicisms making the reception of the message by the public more and more difficult, with a serious consequence: the damage of spoken and written language.

In our study, we considered the current form and meanings of English computer terminology; diachronic analysis requires other approaches from other perspectives. We should see, for example, the phonetic and morphological phenomena of the loan words. There are researchers who have consecrated their linguistic contacts studies between languages aspects of Romanian and English and who described in detail the processes that have marked all lexical and language levels, including specialized languages[32]. Unfortunately, few are those who had directed their study to IT language analysis, which makes our task even more difficult[33].

Regarding this, we tried a brief overview of those aspects, necessary for highlighting the current state of computer/ IT loans from English to Romanian language.

References

*** *Dicţionarul explicativ al limbii române* (DEX), 1998, ediţia a II-a, Bucureşti: Academia Română & Editura Univers Enciclopedic.

*** *Dicţionar ortografic, ortoepic şi morfologic al limbii române*, (DOOM[2]), 2005, Bucureşti: Editura Univers Enciclopedic.

*** *Macmillan English Dictionary for advanced learners*, 2002, Oxford: Macmillan Publishers Ltd.

AVRAM, Mioara, 1970, *Formarea cuvintelor în limba română,* vol. I, Bucureşti: Editura Academiei Române.

AVRAM, Mioara, 1997[2], *Anglicismele în limba română*, Bucureşti: Editura Academiei Române.

BÂRLEA, Petre Gheorghe, 2009, *Limba română contemporană. Fonetică şi fonologie. Ortografie, ortoepie şi punctuaţie. Vocabular.*, Bucureşti: Editura „Grai şi Suflet-Cultura Naţională".

BÂRLEA, Petre Gheorghe, Bârlea, Roxana-Magdalena, 2000, *Lexicul românesc de origine franceză,* Târgovişte: Editura Bibliotheca.

CIOBANU, Georgeta, 1996, *Anglicisme în limba română*, Timişoara: Editura Mirton.

DEROY, Louis, 1956, *L'emprunt linguistique,* Liège: Presses de l'Université.

GOLDIŞ-POALELUNGI, Ana, 1973, L'influence du francais sur le roumain. Vocabulaire et syntaxe, Paris: Belles Lettres.

GÖRLACH, Manfred, 2002, English in Europe, Oxford: University Press.

GRAUR, Al., 1972, *Introducere în lingvistică*, ediţia a II-a, Bucureşti: Editura Ştiinţifică.

GRUIŢĂ, Mariana, 1974, „Adaptarea cuvintelor de origine engleză la sistemul fonetic şi ortografic al limbii române", în *Limbă şi literatură*, nr. 1, Bucureşti, pp. 51-57.

HRISTEA, Theodor, 1968, *Probleme de etimologie*, *Studii. Articole. Note*, Bucureşti: Editura Ştiinţifică.

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[32] Dintre lucrările consultate pentru adaptarea fonetică (şi morfologică) a anglicismelor în limba română, menţionăm: Mioara Avram, 1997[2], Georgeta Ciobanu, 1997, M. Gruiţă, 1974, Th. Hristea, 1973, Adriana Stoichiţoiu-Ichim, 2002[1] ş.a.
[33] Radu-Nicolae Trif, 2006, pp. 28-52.

HRISTEA, Theodor, 1973, „Contribuții la studiul etimologic al neologismelor românești", în: *Limba română,* București, XXII, 1, p. 3-7.

HRISTEA, Theodor, 1984[2], *Sinteze de limba română.*, ediția a II-a, București: Editura Didactică și Pedagogică, pp. 100-161.

IONESCU-CRUȚAN, Nicolae, 2005, *Dicționar de calculatoare* (DC), București: Editura NICULESCU.

MARCU, Florin, 2007, *Marele Dicționar de neologisme*, (MDN), București: Editura Saeculum Vizual.

MLADIN   Constantin-Ioan: http://www.litere.uvt.ro/vechi/documente_pdf/articole/uniterm/uniterm2_2004/cmladin.pdf

MLADIN, C. 2003, *Probleme ale terminologiei sintactice moderne în româna contemporană*, Alba Iulia: Editura Æternitas.

PAPA, Ion-Victor, 1999, *Mini dicționar explicativ de termeni informatici moderni*, București: Editura Image.

ROSETTI, Alexandru, 1968, *Istoria limbii române de la origini până în secolul al XVII-lea*, București: Editura pentru literatură, pp. 319-326.

STOICHIȚOIU-ICHIM, Adriana, 2002[1], „Asimilarea împrumuturilor englezești: aspecte actuale ale dinamicii sensurilor", în: *Aspecte ale dinamicii limbii române actuale*, I, București: Editura Universității din București, pp. 249-262.

TRIF, Radu-Nicolae, 2006, *Influența limbii engleze asupra limbii române în terminologia informaticii*, București: Academia Română, Fundația Națională pentru Știință și Artă.