ROMANIAN INFORMATICS' LANGUAGE BETWEEN PAST AND PRESENT

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Abstract: This paper aims to research and explain the evolution of computer language and moments of their entering in Romanian, as well as the stage of development and use in the specialized register or in the common language. For the time being we do not intend to analyze the process of adapting the loan words and their integration into Romanian, and we shall not refer to any phonological, morphological, lexical and semantic issues of these words.

Keywords: IT terms, loans, translations, dictionaries, Romanian language, and English language.

The majority of scientists: linguists, philosophers, logicians, specialists in Informatics and cybernetics, admit that the main function of the language is communication and therefore the transmission of information, and along with these the transmission of different knowledge. The literary idiom was born from the natural languages: poetical, philosophical, logic, scientific, and, finally the formalized and conventional language, respectively, the used-up idioms for the associative programming computers.

The natural language is direct, expressive, concrete, but at the same time it is more particular, and more intuitive. Thereof, the natural idiom cannot be apprehended, so far, by the computer. Currently, there are researches for the most usual words transmitted vocally or in written (transmitted through scanning or microphone, not those transmitted normally through the keyboard computer), by the computer.

The creation of any abstract language was necessary when it was discovered that the natural language has practically problems in conducting and analysing the notions from the area of scientific knowledge. This was because in the natural idiom, the words express certain objects and states, but the scientific idiom works with notions.

The scientific idiom is an objective idiom, impersonal, without time, space or modality. It describes facts and relations, between these, limiting precisely the physical objects from the logical ones and the certain facts of uncertain ones. Pursuant, the scientific idiom, is sober in descriptions, schematic in demonstrations, tends to be mathematical, mostly in the past decades when the biggest part of the researches were transferred to computers. From semiotic viewpoints, the majority of specialists support the idea that some of the programming languages are closer to logical ones, while others are closer to natural ones.

The development of informatics and informational technologies of communication permitted to human civilization to cross from an industrialized society to an informational society. Information becomes a fundamental resource of the society and is used intensively in all the spheres of activity and this has a great economic and social impact.

Chronologically, the idiom code-machine was the first programming language used. Starting from the semantic description of the algorithm, the program contains a string of finite instructions redacted as sequences of binary characters; this prompting a big effort from the programming engineers; currently this is utilized just to the associative programming of certain microprocessors.

Today, a big part of the necessary stages in the associative programming in the idiom of the machine were transferred to computer, by creating some types of programming languages. These idioms are recognized by the computer, which is equipped with certain programs for this aim that are called compilers, and which changes them to machine idioms.

The information technology is a relative new area with eldest developments in the last two decades. Being seen pretty reticently before, the computer became a device used by people from the most diverse activity fields, becoming familiar even to the little ones, (chiefly with the Internet appearance or computer gaming); currently, we do not believe to exist developmental industrial branches and institutions to unfurl their activity without computers, therefore we consider that afferent terms started to be used on a larger and larger scale.

The main purpose of this work is to research and exhibit the evolution of the Informatics idiom, and the moments this entered in Romanian language, as well as, the developmental stage and its utilization in the specialized register or in the common idiom. The purpose, for the

time being, is not to analyse the process of Informatics loans' adaptation, or of their integration in the Romanian language, we shall not refer here to the, phonetic, morphological, lexical and semantic problems of these words.

Due to the great number of IT terms which entered in Romanian, to the various loan translations existing in any text, any handbook, profile magazines, and also for the determination of the degree of influence on Romanian language, we considered necessary to research any special study, comprising glossaries of computers, handbooks of utilization and initiation of certain Informatics programs, the speciality dictionaries, in order to see these terms' passing to our language, given the fact that we do not find them but, very few in the explanatory and cotemporary Romanian dictionaries or even in the neologisms ones.

For the last 40 years, the research workers in Informatics achieved an impressive number of software languages that lightened the work of those who were trying to decipher them the secrets: algorithmic idioms, many used in universities; universal idioms, starting from the years '70; idioms for data manipulation, for accounting operation; and even idioms used of the mass of users, non-specialists in programming, idioms used of the scientific research workers; object-oriented idioms that assures the storage of the real data, encrypting instruments from the real world; and also modern idioms used for the Web pages.

We can speak of Informatics terminology, actually from the appearance of the first computers, that is from the '70 in the United States and the beginning of the '80 in our country, but a limited number of terms from the IT area, that had attestations in some dictionaries, appeared in our country from the beginning of the '80, they were isolated words from a professional vocabulary[1], that of back then engineers and technicians.

Regarding, for instance, the first *Dictionary of Informatics* appeared in the year 1981, in the Scientific and Encyclopaedic Publishing House, we can remark, the fact that this proposed the presentation of specific terms about the associative programming and utilization of computers, as well as, dealing with theoretical fundamental aspects and engineering problems in an explicit and accessible way, chiefly, as we mentioned before, to professionals' area. This incorporates over 1500 terms, used at that time in the specialists' terminology. For most of the entering

[1] Radu-Nicolae Trif, *Influența limbii engleze asupra limbii române în terminologia informatică,* Ed. Academiei Române, Bucharest, 2006, p. 12.

terms, which were taken directly from English and used up frequently of specialists, they proposed equivalent translations in Romanian. For the term which nominate the same notions, is defined the term with the wider acceptation, others were described as synonyms. Yet, the terms constitute, mostly, "closed codes"[2], because of the encyclopaedic and strict speciality explanations.

In the new dictionaries, we notice an opening of codes, an easiness of the terms' meanings by usual people, the non-specialists in computers. The majority of recent dictionaries are translations from the English ones of IT area, with definitions more often with encyclopaedically character but also objective, facilitating, otherwise the access of many computers users. Another interesting characteristic of the dictionaries of computers and informatics appeared after 1990, is that of comprising numerous examples, names, with the proper explanations of the most important software applications from different areas (charts, programs, typing, tabular calculus, multimedia, Internet), but sometimes, also, advices and cautions for users, facilitating the comprehension of the statements, messages, components, or acronyms, more and more numerous, as time passes.

The evolution of the hardware component of the systems impelled the evolution of the software component. The new generations of computers, together with the new operation systems led to the appearance of new macro-languages. Therefore the repartition of the specialists of different macro-languages and architectures modified during time. From linguistic viewpoint, this evolution and diversification led to the appearance of the new idiom, a special idiom, an own terminology of the computers' users. As the notions of this idioms became more numerous; all the IT terminology, became more accessible.

Through the global context of the 21st century, the access to information plays a fundamental role in facilitating the access to knowledge. The technologies modify and industrialize, the information becoming a good resource for the global development. The information itself becomes global and its delivery is achieved through the growth connectivity (through connections of the Internet), in the current age, the distribution of electronic information through Internet is the only way to satisfy the needs of complete

[2] A. Bidu-Vrănceanu, *Aspecte ale funcţiei reflexive a limbii în terminologiile tehnico-ştiinţifice, in* „Studii şi cercetări lingvistice", XL (1989), nr. 5.

specialists' documentation, to assure the autonomy and a more efficient activity.

Notable references, about the influence of English language on Romanian language were done after the 1950, when the Romanian had already assimilated, very easy words borrowed from another languages, it seemed that through its phonetic and morphological system the adaptation of terms was a gradual and slow phenomenon, and the illustration of the influence of English language to the level of IT terms, was just partial represented in linguistics as opposed the French, German, Italian or even English influence in diverse terminologies (sports press, publicity), this being realised hardly after the '80.

The freshening of the vocabulary in languages is an inevitable process, in the conditions of social changes, scientific and technological in the human society, but especially as an aspect of globalization. Yet, the adoption of neologisms must be done after a well established model, where through these should be easy assimilated in Romanian, even adjusted to its conditions.

The acceptation of a neologism in the language is due to functional criteria, not esthetical ones, but chiefly to the phonetic character of the Romanian. In the IT idiom, we do not assist to the formation of new words, which enriched, for long time the lexical background of Romanian language, but just to the importation of words from the foreign, languages with statutes of universal languages, in this case mainly, English.

These being neologisms, loans from English, they belong, traditionally, to the passive vocabulary. They entered firstly there, and then in the active vocabulary, others never arrived there. There is no boundary between the two sections of vocabulary, in fact the words are moving, continuously from one part to another, depending on the cultural level, the experience of life, the average and the linguistic experience.

The phenomenon is inevitable and the Informatics terminology is one of the sources of prolific neologisms. The domain is confronted with an invasion of neologisms and of "barbarisms" and we assist to this phenomenon, considering that Informatics is mainly to be blamed of this afflux of terms of English origin, although many another areas as marketing, publicity, management, etc. can be equally mentioned. A consolation only exists this phenomenon is frequent in all the languages, inclusively French.

The Informatics idiom has only a special situation. If, for instance, the advertising argot is reduced outwards professional circles, the spread of

terminology from the area of information technology, has taken, currently, inevitably, mass proportions. Practically, no field will work without the Informatics technologies and this spread in the Romanian houses is a process with a full development.

It is interesting for reflection that, from historic view, the IT terminology came in two major waves among which the first one (in the '70) was from the French language. First Romanian computers were produced under French licence - computer Iris 50. The operation system being in French, a series of terms enforced, with authority: *file*, *printer compiler*, etc. Their assimilation was facilitated not just of the absence of the alternatives, but also, of a long tradition of lexical loans from the French language.

For a long time, French Informatics engineers demonstrated a rejection against the importing of technical terms from English, (represented through lexical loans) creating their own idioms and programs appliances, or using translations. This attitude of reducing the English is not a specific phenomenon, just in Informatics area, but seems an international phenomenon, without having any success, especially, because of the informational explosion of the cotemporary world.

There are several terms that were created or translated from French after an English model, the Romanian taking over, in sequence, the terms from French:

- *birotica* (fr. *Bureautique*, engl. *Office automation*);
- *ordinator* (fr. *Ordinateur*);
- *computer* (fr. *Calculateur*, engl. *Computer* has not the same sense with computer)
- *printer* (fr. *Printer*, engl. *Printer*)

Only that today, even some of the terms are threatened of the English variants, for example, the "*imprimanta*" becomes more frequently *the printer*; the "*calculator"* became the "*computer*", etc.

Although the direct influence of French language in Informatics is reduced, we cannot say the same thing about the indirect one, exercised, by the French language on English; a big number of words specialized during the crystallization of the information terminology[3], and they acquired the

[3] Trif, Radu-Nicolae, *Influența limbii engleze asupra limbii române în terminologia informatică*, Ed. Academiei Române, Bucharest, 2006, p. 15.

statute of informatics terms, having a double etymology. We comprised here:

- *dischetă* (engl. *diskette,* fr. *disquette*);
- *digital* (engl. *digital,* fr. *digital*);
- *decodor* (engl. *decoder,* fr. *décodeur);*
- *flash (*engl. *flash,* fr. *flash);*
- *biocibernetică (*engl. *biocybernetics*, fr. *biocibernétique);*
- *gadget (*engl. *gadget*, fr. *gadget);)*
- *microprocesor (*engl. *microprocessor*, fr. *microprocesseur);*
- *scaner (*engl. *scanner*, fr. *scanner);* etc.

We cannot limit, stringently, the terminology of Informatics, chiefly, for the last decades when English is spoken from kindergarten, the computer is utilized in schools, and the use of the idiom with the web appearance is large and larger. The computer' insight in many areas causes a diversification of the users' types[4]: terminologists, specialists that frequently create new terms in Romanian but, also, teachers, translators and not last, users, in general, for whom learning English would partially solve the terminology problem, though we forget that even for native speakers of English the idiom of Informatics is still considered an argot. Certainly, an American or an English speaker will apprehend the words of the standard language, as: *firewall* (a protection wall built for preventing the extension of fires), *finger* or *layer,* but their informatics' meanings (*firewall* = a security system between a net and the Internet, *finger* = an utility program for finding an address on the Internet, *layer* = method of disposing on a page) is very possible not to be understood; such examples may continue, but we will talk about them on another paper. Another variant more convenient for the latter – would be the explanation of the Informatics' programs from Romanian market, meaning more than a simple translation of the user's interface, involving a larger range of conventions and standards. This method is practiced on a large scale in the entire world, but we encountered a series of difficulties, the absence of a minimum of conventions accepted regarding the technical vocabulary would be one of them.

The most usual terms circulates at the some time, below diverse forms, although none of them succeeds in enforcing. A simple example is *site* (*web*), which circulates in the English variant (in writing and pronunciation), in the phonetic variant in Romanian *sait* and in the version

[4] Ciobanu, G., *Elemente de terminologie,* 1988, p. 102-104.

sit (based on the Latin etymology and on the existence of the word in Romanian). Another term we should discuss is *mouse*, for which the phonetic transcription *maus* (from the DEX) seemed not just natural and inevitable, but chiefly useful for the non-speakers of English.

The Internet appearance, whose development is done with a logarithmic rate, gave birth to a new universe: cyberspace, and at the same time the appearance of its own idiom. The communication through computers were somehow altered of a fated idiom which was not done to be heard, but just read; therefore the absence of the consonants or the vowels, diacritical marks do not disturb anybody, anymore, mostly because the ones who use them are young people. Great sources of information make available a volume of data so varied and so big, that the practical way of utilizing the accessed information cannot even be estimated, much less, evaluated.

In conclusion, without the access to information in all its forms of presentation, and in the absence of the endowment with technique and updated technologies, without using the Internet, computers and telecommunications, we cannot take advantage of the society based on information and knowledge, a condition of primordial importance for the contemporary world regarding the material and the spiritual development and fulfilment. These being the reasons, we hope that objective, for which we illustrated, at large, the progress achieved, in the last years, in the area of the technology of Informatics' terminology.

BIBLIOGRAPHY

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

AVRAM, Mioara, 1997, „Un tip recent de compunere cu sintaxă aparte în limba română", in *Probleme ale exprimării corecte*, Bucureşti: Editura Academiei Române.

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

BIDU VRĂNCEANU, Angela, 1989, *Aspecte ale funcţiei reflexive a limbii în terminologiile tehnico-ştiinţifice*, in „Studii şi cercetări lingvistice", nr. 5.

BIDU VRĂNCEANU, Angela, 1980, *Structuri lingvistice şi structuri nelingvistice*, in „Studii şi cercetări lingvistice", nr. 5.
BIDU VRÂNCEANU, Angela, 1989, *Câteva aspecte de interes teoretic şi aplicativ în studiul terminologiile ştiinţifice*, în „Limba şi literatura română", XXXVIII.
BIDU VRĂNCEANU, Angela, 1990, *Relaţiile dintre limbajele tehnico-ştiinţifice şi limbajul literar standard*, în „Limbă şi literatură", nr. 3-4.
CIOBANU, Georgeta, 1997, *Adaptation of the English element in Romanian*, Timişoara: Mirton.
CIOBANU, Georgeta, 1988, *Elemente de terminologie*, Timişoara: Mirton.
COTEANU, Ion, 1990, *Despre popularizarea termenilor ştiinţifici*, în „Limba română", XXXIX, nr. 3.
VINTILĂ RĂDULESCU, Ioana, 1999, *Terminologia şi problemele ei actuale*, Bucureşti: Editura Academiei Române.
ZAFIU, Rodica, 2001, *Diversitate stilistică în româna actuală*, Bucureşti: Editura Universităţii Bucureşti.

DICTIONARIES

BILD, W., 1997, *Dicţionar de informatică* (DI), Iaşi.
CIOBANU, Elena, POPESCU-MARIN, Magdalena, 2000, *Dicţionar de neologisme*, Bucureşti: Floarea Darurilor, Rotech Pro.
DIMITRESCU, Florica, 1997, *Dicţionar de cuvinte recente* (DCR), ed. a II-a, Bucureşti: Logos.
IONESCU-CRUŢAN, Nicolae, 2003, *Dicţionar de calculatoare englez-român*, Bucureşti: E.D.P.
MARINESCU, Viorel (coord.), 1999, *Dicţionar informatic trilingv englez-francez-român*, Bucureşti: ALL.
MEREABLE, Emanuel, 1996, *Dicţionar de informatică şi cibernetică englez-român*, Bucureşti: Oscar Print.
PAPA, Ion-Victor, 1999, *Mini dicţionar explicativ de termeni informatici moderni*, Bucureşti: Image.
PFAFFENBERGER, Bryan, *Dicţionar explicativ de calculatoare*, Bucureşti: Teora, s.a.
TRIF, Radu-Nicolae, 2006, *Influenţa limbii engleze asupra limbii române în terminologia informaticii*, Academia

Română, Bucureşti: Fundația Națională pentru Ştiință şi Artă.
*** *Dicţionar explicativ al limbii române* (DEX), ed. a II-a, 1996, Bucureşti.
*** *Dicţionar explicativ şi enciclopedic al limbii române*, Bucureşti: Floarea Darurilor, s.a.
*** *Dicţionar de informatică*, 1981, Bucureşti: Editura ştiinţifică şi enciclopedică.
*** *Dicţionar ortografic, ortoepic şi morfologic al limbii române*, 2005, Bucureşti: Editura Univers Enciclopedic.

http://ebooks.unibuc.ro/informatica/info/.htm
http://www.racai.ro/MD75/Acad7.htm
www.biblioteca.ase.ro/downres.php
http://www.businessmagazin.ro/business-hi-tech/site-sait-sit.html