

ON THE EVOLUTION OF TERMINOLOGY FOR NEW TECHNOLOGIES IN ALBANIAN LANGUAGE AND EDUCATION

Prof. Assoc. Dr. Mimoza Prik

University of Shkodra „Luigj Gurakuqi“, Faculty of Social Sciences. Albania

Dr. Jozef Bushati

University of Shkodra „Luigj Gurakuqi“,
Faculty of Educational Sciences. Albania

Abstract

This paper aims to shine a little bit on the evolution of computer terminology in Albanian language. We live in a digital society and therefore education or communication through technology has become a necessity. Undoubtedly the rapid development of information technology in Albanian society has brought changes in its core problematic. Along with the development of technology was developed and terminology, whose system in different languages brought no little problems at different problematics, because main part of this terminology comes from English. Albanian language, as written language with the Latin alphabet was easier phonetic adoption of this terminology. But, lexicographers faced with different terminological difficulties, as the avoidance of synonymy, the issue of abbreviations, unification and standardization of the terminology in Albanian etc. What are the new challenges of Albanian in this digital world? Some of the issues that will be discussed in our paper are: What are some of the stages of terminology development in the Albanian language and which is the place of technological terminology throughout this nomenclature? How much is involved Albanian language in projects that are based on learning through technology? Did they help them to modernize the education system? How much and how will help customized computer terminology in Albanian? What are the new challenges of Albanian in this digital world?

Keywords: Albanian language; education: lexicography, technology; terminology

Introduction

From the world experiences, connections between language and technology are seen as powerful and necessary since the mid-80^s of last

century. This relationship has gone up to the birth of new language directions, but also and to subjects that were created as a fusion between them, as “natural language processing” which is already an integral part of many curricula with linguistic directions at many faculties in the world. The middle of the last century brought different experience of language connection with other sciences, and it exact ones.

N. Comsky since 1957 year, have applied mathematical theories in linguistics by establishing a new language direction, generative linguistics and transformative linguistics. Later bare statistical linguistics, which preceded the language links with technology. Technology today is helping as text linguistics, with respect to the frequency of the different uses of language forms and contexts in which they are used but also the creation of language corps for different languages. Technology has become a necessity for learning foreign languages, but has spread also for learning native languages.

Albanian Language Teaching

Education is one of the main columns which supports a nation and upon which his future, therefore, seen as a nation value, requires a special care. This concept has raised the Albanian educational institution. Albanian education did not begin in the mother tongue. Albanian, although an old language (derived from Illyrian) Indo-European, has a quite late documentation. The first full text of this language is "Missal" (“Meshari”) of John Buzuku (Gjon Buzuku), published in 1555.

Historical dates indicate the presence of educational institutions in the ancient center of civilization as: Durrahium (Durrës), Apollonia etc. Historians indicate that during 44-45 Octavian (Emperor Augustus) studied six month at Apollonia (S. Anamali, 1956, p. 3). During the 17th- century were opened some primary schools in Albanian in Kurbin (Kruja, 1632) and in Blinisht (Zadrima, 1639).

The 18th- century, especially the second half of his, was very important for Albanian education. At this time was founded "The New Academy" an important academic center, which will soon become a center for the development of the European dimension of culture and didactic thought.” While, the first laic school in Albanian was opened in the city of Korça on 07/03/1887.

Today this date in Albania celebrated as the “Teacher Day”. This school was with nationally and democratic character, where students were allowed to study both, boys and girls, without religious different. For Albania and Albanian education was important the year 1908 when Congress convened Bitola was unified for a common alphabet, for Albanian language, which will help printed books that would teach Albanian students.

In Albanian education played a major role the Saverian Jesuit College which was established in 1877 in Shkodër. Shkodra was a country in which the Albanian language was taught five times for week and at the same time were given the Latin and Italian language. A positive element was the fact that the school had the disposal of a printing press “Zoja e Paperlyeme” in which were printed a lot of books and dictionaries to help the lessons of Albanian language. The secondary general school entitled “Iliricum” was opened in 1921 at the same city, Shkoder. In this high school were taught other languages considered as classical languages such as: Greek, Latin; so much used languages such as French and Italian. These languages were taught as a surplus of the Albanian language.

The teaching of Albanian language dates in the late 20th century, in the 20^s year. During these years, schools and teachers for the first time had a grammar text to be based on. A characteristic of the teaching schedules was to emphasize the education of pupils with a high respect toward the language, to practice it correctly but during this period there wasn't a unified Albanian language as well as a standard one and that is why the text or articles used where in either one of the dialects known then as: the Gheg or Tosk dialect.

The first grammar to teach Albanian language was drafted by At Francesco Mari da Lecce “Osservazioni grammaticali nella Lingua Albanese (Roma, 1716), but it was written in Italian language, meanwhile “Shkronjëtores së gjuhës shqipe” was the first grammar written in Albanian language by Sami Frasheri in 1886. It was of high interest the grammar compiled by Sotir Peci entitled “Viti Premtar i Grammatikës” written in 1922, “Gramatika elementare” (1912) of Sevasti Qirios Dakos. “Gramatika ia Folmarmia Shcyptaré” which was published in Shkoder by “Bashkimi” Society as well as “Gramatika apo Folmarmja shqype” (compiled for schools which were divided in four parts after Joseph Lehman's method published from “Dija” Society in Vienna, Austria, 1912, 1914).

The second half of the 20th century was an overturning of the Albanian grammatology. Of high interest is the grammar compiled by J. Rrota and A. Xhuvani. J. Rrota published “Sintaksi i shqipes” 1942 meanwhile “Gjuha e shkrueme ose verejtja gramatikore” (2000, postume). A. Xhuvani compiled considerable texts about morphology and syntax, mainly for elementary schools. These texts served as an essential part to learn Albanian language for several years and that's why these texts were republished in the consequent years. During 1944 - 1957 books about the teaching of Albanian language, in all levels were entitled “Gramatika e gjuhës shqipe”. In the 60^s of the previous century, in the plans of Albanian language was the indispensable teaching of foreign languages.

Normally, the teaching text changed over the years. After the 2000^s, were compiled texts entitled “Gjuha amtare” in which we find a mixing of linguistics and literature elements. During this period, together with text and grammar was developed even the terminology.

The role of digital context in teaching Albanian language

We live in a digital era and the most important part of our social life can't be understood without the presence of a computer and multimedia. Even the teaching process as part of our social life is more and more getting into technology. In 1976, Apple was introduced with Apple1 in which software programs for teaching were available in K-12 level. Meanwhile in the world, it was during the 80^s that this technology widely spread out and it was this technology that faced teachers with new challenges toward new teaching strategies.

Most of the young children are competent users of technologies from an early age. A study conducted in the USA indicates that children under the age of 6 are immersed in technology from birth (Rideout, Vandewater & Wartella, 2003). Some researchers have recommended digital devices in literacy learning (Flewitt, 2011; Plowman et al., 2010; Wohlwend, 2010).

Language and the internet have a strong connection. Famous linguist D. Crystal for this connection writes: “The Internet is an electronic, global, and interactive medium, and each of these properties has consequences for the kind of language found there. The most fundamental influence arises out of the electronic character of the channel. Most obviously, a user's communicative options are constrained by the nature of the hardware needed in order to gain Internet access. Thus, a set of characters on a keyboard determines productive linguistic capacity (the type of information that can be sent); and the size and configuration of the screen determines receptive linguistic capacity (the type of information that can be seen). Both sender and receiver are additionally constrained linguistically by the properties of the Internet software and hardware linking them” (D. Crystal, 2003, p. 24).

Even though in Albania, teaching based on technology was lately used after the 90 s of the 20th century, nowadays it is an inseparable and indispensable part in teaching Albanian language. In the late years, the use of computer is an indispensable mean in teaching mother language (L1) but even in teaching a foreign language (L2). Computer usage has increased the teaching process to a high level and to new dimensions and is considered as an interactive method. The importance of technology in education is closely related with the opportunities that the computer programs offer in relieving the teaching process. In the 21st century an adequate education should have these characteristics:

- Visionary and sensible use of technology to extend learning

- Engagement with deep, rich content
- Membership in a meaningful community of learners
- Excellent teaching
- Support of parents and other adults. (James M. Marshall, 2002:6)

The rapid penetration of technology obliged universities and faculties to prepare teachers with new duties. In the coming schedules new subjects which had as an essential part technology infiltrated, based on the experiences of other languages, which as well have a longer experience in the use of technology. Studies show us that computer programs which have the reading skill as their base considerably improve reading and help in development of a correct a standard phonetic language.

“Using multimedia tools encourages the learning process and what are the concrete results of a multimedia teaching, compared to traditional research is part of our first with specifics for the Albanian language is in first class. Writing should be: regarded as a natural way of communication, naturally linked to oral language and reading, both an individual and shared experience, an interactive experience of learning and teaching, challenging and fun, promoted and supported by ICT, that has opened up enormous possibilities, writing through ICT becomes an interactive activity.“ (Bushati et al 2013)

Albanian language being a language with Latin basis quickly adapted to the international keyboards. It had difficulties in the writing of sounds such as: <ë>, <ç>, <Ë>, <ç>. In the beginning combinations of commands was used for their writing but then were crested keyboards for Albanian language.

The first software for teaching Albanian language

Technology has helped a lot in the widespread of Albanian language throughout downloading of materials in the internet such as books in Albanian language, ABC-s, and fairytales. It was well compiled an electronic program about orthography in Albanian language.

Kulla e shqipes is the first software about teaching Albanian language. The Orthographic program AS 2.0 contains 15 000 words and more than 2 million forms in the Albanian words. This program helps in the auto- correction of the texts in order to avoid mistakes. The electronic dictionary with about 40 000 words can be downloaded freely in the link: <http://www.fjalori.shkenca.org>. In this dictionary the words are given with their meaning, function and the relation in word forming.

The digital ABC in Albanian Language is part of program “Albanian Language and the computer”. The ABC is multimedia and contains 9 modules: the alphabet, numbers, illustrations, fairytales, songs, games and puzzles. Everything is based on games in order to be more attractive to

pupils. Pupils are meant to read and write in Albanian language throughout sound connection, then gathering syllables and then into simple sentences.

The electronic dictionary is based on “The dictionary of the Albanian Language” of the Institute of Linguistic and Literature, published in Tirana in 2006. It contains about 48 000 words, more than 5000 phraseological units and also it provides a practical usage which is an important reference for all the users of the Albanian language. By creating the electronic database of the dictionary, it is now very easy with the advanced search of the words and phrases, included in this dictionary. As an added value of this electronic dictionary is selection of the voice and pronunciation of the words and the phrases. This is a result of the close collaboration of the authors of the dictionary and was approved by the board of CAS (Center of Albanological Studies) and the board of the ILL (Institute of Linguistic and Literature).

“It follows Ectaco Partner C-4 Electronic dictionary (Albanian–English & English Albanian) that is a great resource whether people are learning a language or trying to communicate. It is translators that employ an electronic book design and allows for enhanced translation and learning features all on an easy to use interface. Advanced TTS modules allow to hear the English/Albanian pronunciation of any dictionary entry, also spoken out using crystal clear digital recordings of authentic native speakers” (Priku et al.2014)

A serious attempt is linked with efforts to establish electronic Corpus of Albanian. It contains up to date 16,700,000 uses words and was created under the project "Corpus Linguistics" by the Academy of Sciences of Russia with the initiative of a group of linguists and specialists from Moscow and Albanologues from Petersburg. It can be consulted online on the website: (Albanian National Corpus) [http://web-corpora.net/AlbanianCorpus /search](http://web-corpora.net/AlbanianCorpus/search).

Technology’s terminology in Albanian language

Considering the history of Albanian language terminology, mainly of the linguistic one, we can claim that its development passed in between some levels which are conditioned by some external factors mainly historic, economics, social, cultural etc. as well as internal factors. Considering the long studying of some authors we came to the conclusion that is worth to mention the hard work of S. Frashëri (188), K. Kristoforidhi (1904), A. Xanoni (1909), G. Mikeli (1916), A. Xhuvani etc. But in this case it should be excepted the work of Komisia Letrare Shqipe e Shkodrës (1916-1918) which was one the first enterprises which an organized and not sporadic way, discussed and accepted a series of terms from the juridical and administrative sector starting from the basis of Albanian language. On the other hand, they

have given important contribution in the creation and unification of mostly linguistic terms. If the basis of linguistic terminology in Albanian language were introduced throughout grammar, its standardization started with the publishing of the first terminology dictionary (Tirana, 1975), than was published the “Comparative dictionary of linguistics terms” (G. Belluscio & Sh. Rrokaj, Tirana, 2011).

Information and Communication Technology penetrated in a high speed all over the world. It happened the same in Albanian, but the language wasn't prepared to this high burst of the terms from this field and that's why most of the languages find it simpler to adapt the foreign terms together with their concept. This terminology penetrated from English in the form of international loans. This dates the first period of penetration of terminological terminology even in Albanian language. According to D. Crystal “The arrival of a global language, English, has altered the balance of linguistic power in unprecedented way, and generated a whole new set of attitudes about language and languages“. (Crystal, 2004, p. 123)

The adaption of the term was only phonetically, words were submitted to the rules of Albanian language. In this way, were infiltrated in the Albanian language these terms:

Language	Word in English	Language	Word in Albanian	Identical
English	<i>computer</i>	Albanian	<i>kompjuter</i>	
English	<i>internet</i>	Albanian	<i>internet</i>	<i>internet</i>
English	<i>hard disc</i>	Albanian	<i>hard disk</i>	
English	<i>compact disc</i>	Albanian	<i>kompakt disk</i>	
English	<i>exit</i>	Albanian	<i>dalje</i>	
English	<i>audio</i>	Albanian	<i>audio</i>	<i>audio</i>
English	<i>monitor</i>	Albanian	<i>monitor</i>	<i>monitor</i>
English	<i>digital</i>	Albanian	<i>dixhital</i>	
English	<i>document</i>	Albanian	<i>dokument</i>	
English	<i>draft</i>	Albanian	<i>draft</i>	<i>draft</i>
English	<i>access</i>	Albanian	<i>akses</i>	
English	<i>antivirus</i>	Albanian	<i>antivirus</i>	<i>antivirus</i>
English	<i>file</i>	Albanian	<i>fajl</i>	
English	<i>folder</i>	Albanian	<i>folder</i>	<i>folder</i>
English	<i>cursor</i>	Albanian	<i>kursor</i>	
English	<i>icon</i>	Albanian	<i>ikonë</i>	
English	<i>laptop</i>	Albanian	<i>laptop</i>	<i>laptop</i>
English	<i>virus</i>	Albanian	<i>virus</i>	<i>virus</i>
English	<i>printer</i>	Albanian	<i>printer</i>	<i>printer</i>

In some cases in order to adapt the term to Albanian language, they were obliged to use the Albanian suffixes such as:

Language	Word in English	Language	Word in Albanian
English	<i>click</i>	Albanian	<i>kliko</i>
English	<i>print</i>	Albanian	<i>printo</i>
English	<i>adapt</i>	Albanian	<i>adapto</i>
English	<i>install</i>	Albanian	<i>instaloj</i>

In this line there are continue and with other Albanian suffixes. This other step is the attempt to translate into Albanian some terms but through the co-existence of English and Albanian terms as well such as:

Language	Word in English	Language	Word in Albanian
English	<i>delete</i>	Albanian	<i>fshij</i>
English	<i>free</i>	Albanian	<i>falas</i>
English	<i>e mail</i>	Albanian	<i>postë elektronike</i>
English	<i>mouse</i>	Albanian	<i>mi</i>

A means that helped in the terms adaptation in Albanian language was calque. English patterns in the form of calque served as a means in the forming of the new word in Albanian language even with everyday words such as:

Language	Word in English	Language	Word in Albanian
English	<i>weekend</i>	Albanian	<i>fundjavë</i>
English	<i>password</i>	Albanian	<i>fjalëkalim</i>
English	<i>bookmark</i>	Albanian	<i>faqeshënjes</i>
English	<i>full-screen</i>	Albanian	<i>ekran i plotë</i>
English	<i>gateway</i>	Albanian	<i>portëkalim</i>
English	<i>spreadsheet</i>	Albanian	<i>fletëlogaritëse</i>

Linguistics of this field have noticed that “maybe in the beginnings of computer use had use of computer terms in foreign language, mainly English as a result of the sudden burst and development of informational technology [...] but in recent years is done a lot of work to translate them in Albanian language” (A. Çepani & A. Çerpja, 2010, p. 277)

In Albanian language this terminology often has created even word components or word family such as: engl. kompjuter – alb. kompjuterik, kompjuterist, kompjuterizoj, i kompjuterizuar; engl. navigate- alb. navigoj, navigim etc.

Some terms in English have even their abbreviated form and are used in the form of the acronyms and in the same cases Albanian language has adapted the abbreviated term such as:

Language	Word in English	Acronym	Language	Word in Albanian
English	<i>Local area network</i>	(LAN)	Albanian	<i>Rrjeti i zonës lokale</i>
English	<i>compact disk</i>	(CD)-	Albanian	<i>disk kompakt</i>
English	<i>digital versatile disk</i>	(DVD)	Albanian	<i>disk digjital i gjithanshëm</i>
English	<i>Random Access Memory</i>	(RAM)	Albanian	<i>memorie me akses të rastësishëm</i>

English	<i>Advanced Digital Network</i>	(AND)	Albanian	<i>rrjet digjital i përparuar</i>
English	<i>Asymmetric Digital Subscriber Line</i>	(ADSL)	Albanian	<i>linjë asimetrike digjitale e abonentit</i>
English	<i>hard disk</i>	(HD)	Albanian	<i>disk fiks etc.</i>

Dictionary of Informatics (FTI) with 3000 terms, English-Albanian-English, compiled by a group of authors, from area of Computer Science and Linguists. The terms included in this dictionary are mainly from these subfields: Informatics / Computer Science as science and technology, hardware and software, computer networks, programming languages, Internet and its applications, etc. It is accessible on line at web site: www.gjuhashqipe.com and has been updated several times.

A serious attempt was done in the Albanian language translation of terminological terms by Nebi Caka & Agni Dika & Seb Rodiqi, *Dictionary of informatics English - Albanian language- English- Albanian* (Prishtina, 2005).

This dictionary contains about 18000 terms and abbreviations, in English and even in Albanian from informatics field. “Except of the Albanian equivalent word of the English version, it was mostly given even clarifying explanations of the terms in order to help the reader to understand the term in lack of an explanatory dictionary which is expected to be realized in the near future” (Nebi Caka & Agni Dika & Seb Rodiqi, 2005, p. 6).

In some cases authors have adapted the term with a single word such as:

Language	Word in English	Language	Word in Albanian
English	<i>attach</i>	Albanian	<i>bashkëngjit</i>
English	<i>charge</i>	Albanian	<i>ngarkoj</i>
English	<i>close</i>	Albanian	<i>mbyll</i>
English	<i>delete</i>	Albanian	<i>fshij</i>
English	<i>find</i>	Albanian	<i>gjej</i>
English	<i>check</i>	Albanian	<i>kontrolloj</i>
English	<i>install</i>	Albanian	<i>instaloj</i>
English	<i>layout</i>	Albanian	<i>faqos</i>
English	<i>network</i>	Albanian	<i>rrjet</i>
English	<i>windows</i>	Albanian	<i>dritare</i>
English	<i>save</i>	Albanian	<i>ruaj</i>
English	<i>search</i>	Albanian	<i>kërkoj</i>
English	<i>wireless</i>	Albanian	<i>pa përcjellësa</i>

In the some cases it came with alternatives by leaving the choice of use to the reader:

Language	Word in English	Language	Word in Albanian
English	<i>account</i>	Albanian	<i>llogari (profili i përdoruesit të rrjetit</i>
English	<i>add</i>	Albanian	<i>mbledh (shtoj)</i>
English	<i>update</i>	Albanian	<i>përditësoj azhurnoj</i>
English	<i>user</i>	Albanian	<i>përdorues</i>
English	<i>cancel</i>	Albanian	<i>anulloj, pezulloj</i>
English	<i>adjust</i>	Albanian	<i>akordoj, përshtat</i>
English	<i>background</i>	Albanian	<i>sfond, prapavijë,</i>
English	<i>justify</i>	Albanian	<i>rrafshoj</i>
English	<i>link</i>	Albanian	<i>vegëz, lidhje</i>
English	<i>chart</i>	Albanian	<i>diagram, grafik</i>

Technology is a tool that helps us to learn easily the language in all its subsystems. Teachers should support the inclusion of ICT's in teaching. This process is easier when accompanied with its terminology.

Conclusion

- As a conclusion we can claim that the teaching of Albanian language as well as of other languages is more and more being based on technology and together with this in Albanian language appeared even the technological lexis of this field. In the beginning it came mostly as a phonological adaption and later on was done attempts to translate into Albanian. Nowadays are made serious attempts in the technological fulfillment as indispensable usage in schools.
- Good work is being done in adapting the terminology related to ICT in Albanian language. This thing will also assist in the rapid acquisition of this terminology from the students.
- The inclusion of technology in the teaching of Albanian language will also facilitate learning of a second language.
- Digital programs in learning of Albanian language will help many foreigners who are interested to learn this language.

Recommendations

- It was necessarily used software and hardware in order to develop the teaching process. The teaching process should stimulate activities in which the protagonist should be the pupil. This should be under spread even in experiences suburban not just in central schools.
- Be encouraged learning with digital tools as a strategy that promotes children towards language learning methods which resemble with games. Being that children confrontation with digital tools starts at an early age, the linguistic education should base on these tools.
- Encourage of new initiatives for the creation of new computer programs for a lesson to learn how to work Albanian language, including

grammar, vocabulary synonymous, phraseological dictionaries, rhythm dictionaries etc.

- To include more technology in the teaching of Albanian language, not only through the ABC- books, but also from language and literature texts in K-12 cycle. This will make for the students good knowledge of grammar but also a good reader.
- Establishing special centers that focus on mutual reviews, linguistic and technological.

References:

Anderson, R., & B. Speck. (2001). **Using Technology in K-8 Literacy Classrooms**. Upper Saddle River, N.J.: Prentice-Hall.

Caka, N., & Dika, A., & Rodqi S. (2005). *Fjalor i informatikës anglisht-shqip shqip-anglisht*. Prishtina: Academy of Science and Arts of Kosovo.

Crystal, D., (2003). *Language and internet*. 2nd ed. Oxford: Oxford University Press.

Crystal, D. (2004). *The language revolution*. Cambridge: Polity Press.

Duro, A., (2009). *Termi dhe fjala në gjuhën shqipe (në rrafshin e shprehjes dhe të përmbajtjes)*. Tirana.

Leka, F., & Dodbiba, L. (1975). red. *Fjalor i termave të gjuhësisë: shqip-rusisht-frëngjisht-anglisht-gjermanisht-italisht* Tiranë: Mihal Duri.

Leu, D. J., & Kinzer, C. K. (2003) *Effective Literacy Instruction, K-8: Implementing Best Practice*. Merrill: Prentice Hall.

Anamali, S. (1956). Të dhëna mbi elementin ilir në qytetet antike Epidamn dhe Apolloni: *Buletin për Shkencat Shoqërore*, 1, 3-39.

Burnett, C. (2010). Technology and literacy in early childhood educational settings: A review of research. *Journal of Early Childhood Literacy*, 10(3), 247-270.

Wohlwend K (2010) A is for Avatar: Young children in literacy 2.0 worlds and literacy 1.0 Schools. *Language Arts* 88(2): 144–152.

Plowman L., Stephen C. & McPake J. (2010) Supporting young children's learning with technology at home and in preschool. **Research Papers in Education** 25 (1) 93-113.

Çepani, A. & Çerçja, A. (2010). Shqipja dhe terminologjia kompjuterike. *Seminari XXIX ndërkombëtar për gjuhën, letërsinë dhe kulturën shqiptare* (pp. 275 - 282). Prishtina: Faculty of Philology, University of Prishtina.

Marshall, J. M. (2002) *Learning with Technology. Evidence that technology can, and does, support learning*. A white paper prepared for Cable in the Classroom, San Diego State University. http://www.medialit.org/sites/default/files/545_CICReportLearningwithTechnology.pdf

Priku, M.& Bushati, J. & Sula, A. & Kashahu, L. *One approach for the role of rhyming dictionaries in developing children's language proficiency and the multimedia technologies*, in European Scientific Journal May 2014 edition vol.10, No.14 ISSN:1857 – 7881 (Print) e - ISSN1857- 7431, p. 24-35.

BUSHATI , J.& DIBRA, G. & PRIKU, M. *Problematic of learning for reading and writing in pre-school and first grade of pre-university education, through multimedia*, Education for the knowledge society, 1st Albania International Conference on Education (AICE), Tirana, 2013, p. 102-114.