

Language Planning and Proficiency in the Field of ICT¹ – the Case of Latvia –

1 Introduction

The dissemination of English as the lingua franca of ICT is often viewed as “the confluence of a number of political and economic forces during the last half of the 20th century”². Neither standard-setters, nor specialists working in the field of ICT appear to be indifferent to the invasion of English in some areas. Professionals commonly accept this fact as a contemporary imperative indicating a perceived inadequacy of terminological resources in modern Latvian ICT areas, while terminologists may seek alternatives. This research is part of a larger study examining a range of questions, which need to be addressed if future professionals are to benefit from a comprehensive and relevant curriculum, which pays special attention to professional

discourse³. The article highlights the differences between the officially recognised terminology and the actual terms used in professional communication and suggests the context of an ESP course for ICT specialists for the promotion of public awareness of the importance of consistency in the use of specialist terminology. The data obtained in the studies⁴ revealed that a certain number of the informants – first year students of the University of Latvia, Faculty of Education, Psychology and Art, IT Teacher Education Program – are ignorant of the official rules and have only a practical grasp of the professional terms, and no more than a vague idea of what these terms may denote⁵.

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¹ Information and Communication Technologies.

² Ammon, U. 2001, *The Dominance of English as a Language of Science: Effects on Other Languages and Language Communities*, (Berlin/ New York: de Gruyter), p. 19.

³ Stavicka, A. 2008, Word Formation Models in ICT Terminology. In: *Rakstu krājums XVII. Valoda dažādu kultūru knotestā*, (Daugavpils: Daugavpils Universitātes Akadēmiskais apgāds “Saule”), pp. 411-420; Stavicka, A. 2009, Raising Awareness of Standard Usage in the Context of ESP Course for ICT Specialists. In: *Applied Linguistics for Specialised Discourse*. Riga: Conference Proceedings. Nr. ISBN 978-9984-39-789-4; Stavicka, A. 2010, The Impact of Dominant Language Ideologies on Standard Terminology Usage in the Field of ICT. In: *Teacher of the 21st Century: Quality Education for Quality Teaching*. Riga: ATEE Spring University.

⁴ *Ibidem*.

⁵ *Ibidem*.

2 Language Planning and Proficiency

Standard-setting is one of the domains of language planning which is “any attempt by a government, etc., to favour one language, or one form of a language, over another. This includes... the official development of a standard form...”⁶. It usually faces resistance of at least some part of language users. In other words, the conflict between the officially promoted standard and actual usage is persistent in the life of any linguistic community at all times. This conflict and debates on the norms recognised by standard-setters are a manifestation of the inevitable strain between language and speech (in de Saussure’s terms) or the system and its realisation (in terms of the Prague School), or language system and language use influenced by social and cultural contexts (in terms of systemic functional linguistics and discourse analysis).

The acuteness of this conflict, however, may vary depending on a number of factors, both linguistic and extra-linguistic.

In present-day Latvia, when language issues and standards of usage in particular are discussed, emotions often run high for several reasons:

- the Latvian language has a relatively recent history as a national literary language, and its development as the official state language was hindered by the destruction of the independence of Latvia in 1940-1990. Therefore, in the eye of the general public, politicians and academia, the idea of a “pure” national language is widely associated now with both political independence and ethnic identity;

- apart from the symbolic significance of Latvian as a national literary language, there is acute and down-to-earth awareness of the fact that in the modern world long-term development and survival prospects of any language depend heavily on whether it is capable of serving its speakers as a medium of communication in science and technology;
- the Latvian language is currently under pressure of both the Russian language widely used in the country – ethnic Latvians constitute about 59% of the population, the remaining 41% are mostly Russian-speaking⁷ – and the pressure of English which is no longer geographically remote, for it is a powerful and influential vehicle of communication on a global scale, notably in both pop culture and in high-tech terminology.

Both pressures result in language interference at several language levels, including, for example, the increased amount of borrowings in terminology. The pressure of English is particularly obvious in ICT terminology, since ICT develops at a quick pace and most original terms are English. They are quickly acquired by members of this professional group and other computer users in Latvia. The adaptation of foreign terms to local needs produces local Latvian “computerese”, many of them being “non-naturalised” borrowings. Two factors at least put Latvian standard-setters at a disadvantage in the race against time. Firstly, in terms of language use, the ICT professional community is a group with fuzzy edges: the computer has become a household

⁶ Matthews, P. 2005, *Oxford Concise Dictionary of Linguistics*, (Oxford: OUP), p. 199.

⁷ <https://www.cia.gov/library/publications/the-world-factbook/geos/lg.html>; [Accessed 1 September 2010].

gadget and ICT professional jargon is likely to be picked up by more people than, say, the jargon of jazz musicians or legalese.

According to the data of the Central Statistical Bureau of Latvia (CSB), based on a survey of 3,900 households throughout Latvia, almost six out of ten Latvian households have Internet access⁸. The Worldstats survey updated for 30 June 2010 states that 67.8 per cent of the population of Latvia use the Internet. Internet user growth in Latvia in 2000–2010 is estimated by the same source at 902.3 per cent⁹.

Secondly, internet/computer users are a relatively young section of the population: according to the CSB survey, "...younger people are the most active users of the Internet. Almost all (96 per cent) people aged 16–24 regularly use the Internet, while 85 percent of those aged 25–34 regularly use the medium. Regular Internet use is lowest, at 20 percent, among persons aged 55–74"¹⁰. Young people are more likely to use jargon as a fashionable and distinctive mark of belonging to a professional or age group, and they seem to be the majority of ICT terminology users.

Standard-setters simply cannot catch up with the unruly terminology growth and start "setting things right" when professional jargon may already be well rooted in specialists' milieux. Professional ICT discourse takes place mostly in the spoken mode and in the mode of electronic communication among insiders (including blogs and professional chats), both

involving a highly informal setting, which have much in common. Participants have equal status, communication is face-to face or otherwise highly interactive, rapid feedback. In both situations "correctness" and compliance with the standards of usage (possibly even non-existent as yet) are not valued. Priority in exchange of messages in real time is given to speed and comprehensibility to immediate participants. In contrast, standard-setters usually communicate with the speakers/writers of Latvian mostly in the written mode, in a more formal setting determined by their role as prescriptivists, communication is not interactive, at least in the sense that feedback, if any, is delayed. Thus, in terms of register variables, the field (subject matter: ICT) is the same, while tenor (role relationships) and characteristics of mode (interpersonal distance, degree and quickness of feedback) differ. Standardisation involves reaching a consensus among individual terminologists and standard-setting bodies, as well as, ideally, with the users, and getting normative editions published, which requires both time and adequate funding. The state of the art in Latvian terminology at large and the principles of its development were described in the publication, *The Principles of Formation of Latvian Terminology* in 2002 by Skujina¹¹.

An attempt at reaching a consensus specifically among ICT terminologists was made in 2003 when "ten guidelines" for the development of ICT terminology in Latvian were formulated, with the focus on the adaptation of borrowed terms to the Latvian language¹².

⁸ <http://latviansonline.com/news/article/6229/>; Andris Straumanis *Survey: Six in 10 households in Latvia Have Internet Access*. 20 October 2009; [Accessed 1 September 2010].

⁹ <http://www.internetworldstats.com/europa.htm#lv>; [Accessed 3 September 2010].

¹⁰ <http://latviansonline.com/news/article/6229/>; [Accessed 5 September 2010].

¹¹ <http://www.vvk.lv/?sadala=217>) *The Principles of Formation of Latvian Terminology*; Skujina, V. *Latviešu terminoloģijas izstrādes principi*, 2002 [Accessed 7 September 2010].

¹² <http://termini.lza.lv/term.php>; J. Borzovs, J., & V. Feists, V. *Vārds apakškomisijai. Informācijas*

Most principles contain systematic requirements, stressing that new terms should fit into the system of the Latvian language at all language levels:

- **phonetic:** Principles 2,8,9 lay emphasis on “euphony”, i.e., the adaptation of borrowings to Latvian phonetic observing “the balance between vowels and consonants”, avoidance of sound combinations atypical of Latvian, avoidance of terms with too many syllables. It is admitted, however, that in professional usage euphony is not a priority;
- **morphological:** applicability of Latvian form-building and word-building models to new terms, taking into account the term’s derivational potential (5);
- **lexical:** taking into account “analogous”, “similar”, already existing terms (5), avoidance of terms which through phonetic similarity create false semantic associations with other words in Latvian word-stock (6);
- **syntactic:** new terms should fit into existing collocation patterns (5)¹³.

Several principles concern the ways of coining new terms: transliteration (*serveris, ploteris, ports*), transcription (*draiveris, fails*) and neologisms (*izvēlne, uzvedne*) are acceptable (Principles 1, 2, 4), but transcribed terms should be supplemented with synonymic equivalents of Latvian origin whenever possible (2) and priority should be given to terms of Latvian origin (7), while Principle 6 states that terms already in wide use should be preserved. Given the present-day situa-

tion in professional usage, Principles 6 and 7 are to some extent in conflict.

3 Background

The field of ICT is now seen as a particularly significant dimension of Latvian official state discourse. The physical sites of terminology research, development, maintenance, dissemination and use are increasingly expanding, although this transfer generally occurs more slowly than authorities tend to believe. In general, the terminology situation in Latvia is “characterized by terminology resource fragmentation across different institutions involved in term formation processes, as well as inconsistency and lack of coordination in terminology development.”¹⁴ However, positive trends do exist. In Latvia, the multi-branch terminology is unified, coordinated and harmonised by the Terminology Commission of the Latvian Academy of Sciences (TC of LAS) established in 1919, which consists of 26 subject-field terminology sub-commissions, including the sub-commission on IT, telecommunications and electronics terminology. The terms approved by the Terminology Commission have the status of normative documents and are regarded as official ones¹⁵. The experts of the Terminology Commission and sub-commissions edit and expertise terms, translate terms and definitions. Main tasks of the TC of LAS are stated by the Regulations of the Cabinet of Ministers of Latvia. According to the Regulations, TC of LAS coordinates the development and takes care of the unity

tehnoloģijas un telekomunikācijas terminoloģijas apakškomisijas 10 principi. Terminoloģijas Jaunumi, 2003.) [Accessed 1 September 2010].

¹³ <http://termini.lza.lv/index.php?category=15> Borzovs, J., & Feists, V. *Vārds apakškomisijai. Informācijas tehnoloģijas un telekomunikācijas terminoloģijas* [Accessed 10 September 2010].

¹⁴ Auksořiute, A., et al. 2006, *Towards Consolidation of European Terminology Resources (Experience and Recommendations from EuroTermBank Project)*, (EuroTermBank Consortium), p. 40.

¹⁵ *Ibidem*.

of the Latvian multi-branched terminology on the national level taking into account the requirements for the international harmonisation of terms¹⁶.

Apart from the Terminology Commission, several other institutions are involved in terminology work:

- (1) the State Language Commission (SLC), established on 16 January 2002, serves as the main institution determining the state language policy in Latvia. The primary goal for the State Language Commission is to identify strategic directions for language policy... The Commission also supervises the implementation of the State Language Policy Program, and it takes part in legislation drafting in the relevant area¹⁷;
- (2) the State Language Agency (SLA) established on 1 July 2009 – a government body under the Ministry of Education and Science. Its main tasks are consulting and promotion of Latvian as the state language; the Latvian Language Agency was established following the reorganisation of the State Language Agency and the National Agency for the Latvian Language Learning. The Latvian Language Agency is carrying out the official language policy formulated in *The Principles of the Official Language Policy for 2005-2014* and *The Official Language Policy Programme for 2006-2010*¹⁸;
- (3) the State Language Centre (SLC) – an institution under the Ministry of Justice. The purpose of the State Language Centre is the implementation of the state policy,

performing supervision over the observance of regulative acts and control in the field of the state language use; the State Language Centre is a government authority supervised by the Ministry of Justice to implement the basic state budget program “Renewal and Preservation of the Functions of State Language” – to participate in the development of state language strategies and support policies, and development of the legal, normative and linguistic base of the Latvian language as the state language¹⁹;

- (4) the Latvian Language Institute (LLI) – a research institute under the authority of the University of Latvia (LU). A structural unit of the LLI is the Terminology Department;
- (5) the Translation and Terminology Centre (TTC) established in 1997 by the Ministry of Foreign Affairs. Since 2005, TTC is under the Ministry of Education and Science. The aim of TTC is providing translations of documents of state and international organisations for the purposes of state administration and society, as well as submitting proposals for the development and standardisation of terminology;
- (6) Latvian Standardisation Organisation “Latvijas Standarts” – founded in 1999, is the national standardisation body, and its main tasks are to provide information on standardisation, develop the national standards and maintain the register of adopted Latvian standards;
- (7) Tilde, established in 1991, is a leading Baltic IT company specialising in language technologies, multilingual and

¹⁶ <http://www.eurotermbank.com/About.aspx>; [Accessed 2 September 2010].

¹⁷ http://www.president.lv/pk/content/?cat_id=8&lng=en; [Accessed 2 September 2010].

¹⁸ http://latviesi.be/?ct=latvian_language_abroad; [Accessed 5 September 2010].

¹⁹ Renewal and Preservation of the Functions of State Language” <http://www.tm.gov.lv/en/ministrja/iestades/vvc.html>; [Accessed 2 September 2010].

internet software and localisation. As a member of the Information Technology and Telecommunications Terminology Subcommittee of the TC of LAS, Tilde actively participates in the terminology development process²⁰.

The internet terminological database *AkadTerm*, an electronic database with search options in six languages, comprises 790,908 terms from various domains collected from 81 sources, one published in 1922, 29 in the period 1958-1989, 45 – in 1990-2009 and the date for six sources has not been indicated; six sources of 81 are related to IT, two of them published before 1990.

Despite the aforementioned positive trends, native Latvian terminology, greatly overloaded by the existence of competing and overlapping systems, only partially assimilates the specialist vocabulary of ICT professionals. Frequent code-switching and code-mixing in professional communication is observed among the informants – 100 future teachers of applied information technology from the Faculty of Education, Psychology and Art the University of Latvia. The article claims that inconsistency in the use of professional terminology may result not only in general communication problems, but also in specific perceptual differences in understanding the same concepts used within the discipline among the professionals. In brief, future professionals can process and distribute a limited amount of information.

4 Methods

The studies were conducted in the academic years 2007/2008, 2008/2009, 2009/2010 in the Faculty of Education

Psychology and Art, Teacher Education Department (LU PPMF SIN) at the University of Latvia. The core database of the study, which explores the extent to which the terms of the Latvian official specialist ICT terminology are used, is 1000 ICT terms. The list of terms examined was culled from a number of written materials in the field of ICT, and it constitutes the core ICT discourse to be acquired during the four-semester ESP course for future teachers of applied information technology of LU PPMF SIN. The studies dealt with the word-lists collected from the study texts and distributed to the informants: 100 future teachers of applied information technology from the LU PPMF SIN.

To identify the problem, a 100 high-frequency ICT term word-list was compiled and distributed to the informants in September 2008, 2009 and 2010. The word-list reflects the study resources and schemes used within the ESP course for ICT specialists. To obtain the list of high frequency ICT terms, 1000 ICT terms culled from the written materials in the field of ICT constituting the core ICT discourse to be acquired during four semesters of English course (128 contact hours) for ICT specialists were typed into a word bank. For each term the frequency of its occurrence within the study materials was calculated (e.g., *computer* 695 times; *software* 235 times, etc.). The list was printed in descending order from high frequency to low frequency. The informants were asked to indicate whether they knew the meaning of an item by choosing one of three options: YES (*sure I know it*), NS (*not sure*) or NO (*I don't know it*). This is an adaptation of a technique developed and tested by Horst

²⁰ Aukšoriute et al., 2006, *op. cit.*, p. 43.

and Meara²¹. At the second stage of the survey the requirement was to write down the native terms the informants use in everyday professional communication to convey the concepts. When they had difficulties in recalling the native equivalent for the English term, the informants were asked to provide their own definition of the concept in English/Latvian or to incorporate the term in a meaningful sentence.

5 Findings and Discussion

The results of the studies conducted in the academic years 2007/2008, 2008/2009, 2009/2010 at the University of Latvia reveal similar tendencies regarding the terms the informants use in everyday professional communication. The examples introduced below are chosen to illustrate the situation and can be grouped as follows:

- (1) borrowings without concession to Latvian phonology, morphology and syntax (e.g., *applet* (sīkļietotne), *avatar* (iemiesojums), *blog* (tīmekļa žurnāls, emuāri), *bug* (blakts), *site* (vietne), etc);
- (2) borrowings adjusted to the word-building system of the Latvian language: *debugēšana* (debugging), *sērfot* (surf);
- (3) transliteration (see Table 1);
- (4) calques different from those introduced by standard-setters (see Table 2).

The examples presented here are at least partially illustrative of the specialist ICT language in use at present. Borrowing without any concessions to Latvian phonology and morphology is the

process which incurs the greatest amount of criticism from terminological authorities. Instead of using the available Latvian terms or nativising the English ones, the informants often borrow English words without adjusting them to the word-building patterns of Latvian; their use depends on the mode and the tenor of the discourse. Other examples reveal the ICT specialists' tendency to use the transliterated form when introducing a concept – borrowed terms serve as a point of departure for word formation drawing on either purely imported stock or combining Latvian and foreign word-building and/or inflectional elements. A prominent group of such neologisms consists of lexical items formed with the help of affixation, by adding a prefix and/or a suffix to the existing root. Calques is a powerful means of enriching the ICT word stock that occurs when a host language takes a lexical item, commonly a metaphor, which has been coined in a donor language and translates it directly, as in *pele* (mouse in computing). Such items are extremely common and frequently not recognised by the informants as loans in any sense, as they are created from the indigenous language stock. Calques are often considered to be more in accordance with the Latvian language than borrowings. The results of the study show numerous cases where the official calques are different from those introduced by ICT specialists, which might be the result of the information and awareness deficit and/or lack of training.

As the findings of the study demonstrate, the actual terminological practice of ICT specialists does not always comply with the principles introduced by terminologists, which might be the result of some weaknesses in the current

²¹ Horst, M., & Meara, P. 1999, Test of a Model for Predicting Second Language Lexical Growth through Reading, *Canadian Modern Language Review*, 56:2, pp. 308-328.

Latvian terminology landscape that are as follows: (1) lack of high quality resources; (2) insufficient distribution and re-utilisation of existing resources; (3) lack of uniform quality management, quality assurance and validation methodologies; (4) information and awareness deficit; (5) underfunding; (6) structural fragmentation and lack of co-operation; (7) or lack of training²².

In Latvia, an indirect indication of the possible improvement of the present situation is supported by the fact that today the majority of the relevant professional-group is in tertiary education. It can be claimed that the context of an ESP course for ICT specialists is relevant for the promotion of the public awareness of the standard usage of both source language field terminology (English) and native professional ICT terminology (Latvian), as we believe that the knowledge of the native equivalent for the source language term facilitates the understanding of the concept. Though the rapid development of the field results in constant appearance of new concepts, which causes discrepancies between the officially recognised terms and the terms used in everyday professional communication, it is apparent that new concepts are built on prior knowledge. The problem, which all the other languages along with Latvian have to face, is the conflict between the two ideologies dominating in modern society – on the one hand, field specialists tend to accept the practical value of the use of English as the common language for the ICT field, conversely, the fundamental value of multilingualism as a fruitful resource for multi-perspective insight

into the nature of the sphere should not be underestimated. Apparently, both models might have some advantages, thus, the proper balance for the practical implications of the two ideologies in the Latvian context should be found²³.

6 Conclusions

ICT terminology develops at a high speed and its standardisation is a daunting task, particularly in languages which have to translate, borrow and otherwise adapt English terms to the needs of local users, both professionals and non-professionals. Reaching a consensus between terminologists and specialists in the field is crucial, but technological progress makes it an ongoing process. Comprehensive terminology with a potential for sustainable growth is not only a feature of any highly developed national language, but also a tool providing the conceptual framework and therefore ensuring efficient communication within the ICT community and beyond. In this context, ICT terminological issues cannot be divorced from the problems faced by both ESP educators and students specialising in ICT.

The findings of the present study may have relevance to the educators who are concerned with educating future professionals in different spheres. The evidence suggests that inconsistency in the use of professional terminology results in misunderstanding of professional concepts. The need for the promotion of public awareness of standard usage requires further attention from educators and standard-setters.

²² Valsts aģentūra (comp.). 2005, Situācijas *izpēte* (latviešu terminoloģijas izstrādes, saskaņošanas un apstiprināšanas jomā). Rīga: Tulkošanas un terminoloģijas centrs.

²³ Stavicka, A. 2008, 2009, 2010, *op. cit.*

Table 1: Standard and Use

English terms	Officially recognised Latvian terms	Latvian terms in use
antivirus program	pretvīrusu programma	antivīruss, antivīrusa programma
applet	sīklietotne	applets
assembler	asamblers	assembleris, asemblers
attachment	piesaistne	atačments, pievienotais fails, pievienojums, pielikums
authentication	autentificēšana	autentifikācija, pārbaude
backup copy	dublējumkopija	bekapa kopija, becpup kopija
browse	pārlūkot	pārlūkot, brauzēt, sērfot
browser	pārlūkprogramma, pārlūks	pārlūks, pārlūkprogramma, brauzeris
browsing	pārlūkošana	brauzēšana, pārlūkošana
bug	blakts	bug, bags, kļūda, gliuks
cartridge	kasetne	kārtridžs, kasetne
chat	tērzēšana	čats, sarunas
click	klikšķis	kliks
clip art	izgriezumkopa	klip ārts
clipping	izgriešana	klipēšana
cracker	kramplauzis	krakeris
debugger	atkļūdotājs	debugers
debugging	atkļūdošana	debugēšana
decompression	atspiešana	dekompresija
decipherment, decryption	atsīfrēšana	dešifrēšana
defragmentation	defragmentēšana	defragmentācija
desktop	darbvirsma	desktops, darbvirsma
digital camera	ciparkamera	digitālā kamera, ciparu kamera
favorites	izlase	bukmārks, favorīti
file transfer	datnes pārsūtīšana	faila pārsūtīšana, failu pārraide
firewall	ugunsmūris	ugunsmūris, fairwols, firewalls
footer	kājene	fūteris
frame	kadrs	freims
hacker	urķis	hakeris

Table 2: Standard and Use 2²⁴

English terms	Officially recognised terms	Latvian terms in use
access time	piekļuves laiks	pieejas laiks
address bus	adrešu kopne	adrešu šina
alignment	līdzināšana	novietojums
attachment	piesaistne	pievienojums
bug	blakts	kļūda
compatibility	saderība	savietojamība
data type	datu tips	datu veids
dial mode	iezvanrežīms	iezvanpiecija
file transfer	datnes pārsūtīšana	datnes pārraide
file name	datnes vārds	datnes nosaukums
frame	ietvars	rāmis
function key	funkcijas taustiņš	funkcijas poga
layout	izkārtojums	novietojums
malfunction	disfunkcija	kļūdaina darbošanās
merge	sapludināšana	savienošana, apvienošana
newsgroup	intereskopa	ziņu grupas
random access file	Brīvpiekļuves datne	brīvpieejas datne
raw data	jēldati	neapstrādāti dati
recovery program	atkopšanas programma	atjaunošanas programma
recycle bin	atkritne	miskaste
safety	nebīstamība	drošība
stylus	irbulis	pildspalva
unauthorized access	nesankcionētā piekļuve	neatļauta piecija.
undo	atsaukt	atcelt
updating	atjaunināšana	atjaunošanās
video editing	videorediģēšana	videoapstrāde

²⁴ Stavicka, A. 2008, 2009, 2010, *op. cit.*