The Modern Trends of the English Terminological Development (on the material of the English printing production terminology)

Inessa Rozhnova

The paper gives the review of the importance of terminology in the era of globalization. The modern development of any terminology is influenced by the so-called "information explosion" that caused the terminological explosion, in other words, the enormous growth in the number of new terms. The ordering of special lexical units is a necessary pre-requisite for communication between specialists (which becomes evermore difficult with the increasing specialisation in the sciences). It is also very important for professional training, as the right choice and systematic presentation of terminology facilities greatly the understanding of the corresponding system of concepts. The English printing production terminology due to the efficient development of different brunches of printing production has widened greatly for last decades. The paper considers the term-abbreviation as one of the productive way of termbuilding in the printing terminology that reflects the modern state of the terminology itself as well as of the printing industry.

The importance of terminology in the era of globalization stems from the fact that nowadays the rapid growth of scientific and technological knowledge is practically impossible without paying attention to the state of terminology. Special lexical vocabulary units comprise more than 90 percent of the new words in modern languages. The growth of scientific and technical vocabularies is much faster than that of the vocabulary of everyday speech. Special vocabulary not only already comprises the major part of any developed national language but is also the most dynamic stratum of language. The so-called "information explosion" – that is the extremely rapid growth of scientific and technological information – caused the terminological explosion, in other words, the enormous growth in the number of new terms. The ordering of special lexical units is a necessary pre-requisite for communication between specialists (which becomes evermore difficult with the increasing specialisation in the sciences). It is also very important for professional training, as the right choice and systematic presentation of terminology facilities greatly the understanding of the corresponding system of concepts.

The multi-lingual world of the next century will depend crucially upon the accurate translation of a wide range of documents, including scientific and technical documents. Documentation and translation of specialist knowledge documents are complex psychological tasks, where feats of cognitive and perceptual processing are performed. Specialist documentation, including learned journals and technical manuals, involves mapping of percepts onto concepts and vice versa, involves the description of the new ideas in a cohesive whole that maintains continuity with the old ideas, involves novel use of the lexical inventory of the language of the document.

Translation of specialist documentation involves as an understanding of the grammatical structure and the lexical inventory of the source and the target languages so involves an understanding of how text is created and will be used, involves how to communicate ideas that may be foreign to the culture of the reader. Translation is, it appears, a complex cognitive process involving the simultaneous and integrated execution of linguistic-, iconic- and symbolic-representation tasks, and translation involves the deployment of episodic and semantic memory.

The documentation of knowledge brings the terminology-related problems faced by documenters, translators and the readers of the documents. The problems involve neologisms, changes in the nuances of established words and phrases, and the abandonment of established terms. How fast the specialists solve these problems so fast we get the latest information. The beginning of a new century has brought many new problems that need to be solved at international level. The most important one is terminological supply of business contacts, industrial and economic projects, joint ventures, financial support, scientific programmes, political conflicts and others. All the terms that denote the concepts of those spheres of activities should be carefully studied and then widely used, as terminology is the way to mutual understanding and world-wide cooperation. The more correctly the terms are used the greater the opportunity to understand each other but that is possible only when the partners have exhaustive knowledge of the terms in questions.

Probably every country in the world can be proud of the unique achievements in any industry or field of culture that is something special, what is lacking in others. Italy, for example, is a trendsetter of fashion and style, Brazil is a country of carnival and soccer, Switzerland can be proud of the banking business and watches, and Japan – of «reasonable manufacturability». Leading Japanese companies often balance between audacious novelty and surprising rational solution of complex technical tasks. The company Mitsubishi Heavy Industries (MHI) is not an exception.

Having started the development and production of the offset printing machines in 1962 the company MHI began rather quickly not only to use the experience of other manufacturers, but also to make its own developments which greatly influenced the development of printing. Due to the combination of innovation and quality the company MHI quickly became one of the leaders in the market offset equipment in Asia and the USA.

The company CGS Publishing Technologies International GmbH (Germany) is very popular in the world market. It is currently engaged in the development of colorproofs and prepress. The company CGS was founded in 1985. In the 1991 it presented to the market the system named ORIS (Open Reproduction on Industry Standard), which was originally developed for workstations DEC Alpha and put on for Windows in 1997. By the end of the 90's the company's products range has included the systems ORIS Page (imposition and design), ORIS Works (Workflow) and the ORIS Color Tuner (colorproof).

Nowadays the company CGS provides solutions for producing colorproof and controlling prepress work flows. It cooperates with the manufacturers of inkjet printers: Canon, EPSON and Hewlett-Packard as well as with manufacturers of the checking and measuring equipment. Moreover CGS has been actively involved in developing materials for the colorproof. As a result, the CGS has created innovative and exclusive materials, which meet the requirements of newspaper and commercial printing and packaging printing. In 1985, the company Adobe (USA) put on the market a page description language PostScript that has opened a new era of desktop publishing. With the advent of the standard PDF the development of the systems and technologies has reached a new level. The document created on any base, whether UNIX or Mac OS, can now be viewed on different machines in its original form. Today, PDF documents provide a transfer member between two technological lines.

The JDF Standard went further. JDF, like PostScript and PDF, does not depend on the producers' solutions but, unlike them, it is completely open standard. It is based on the data description language XML. JDF is an international standard developed by the producers' consortium in order to facilitate interaction between different systems and applications.

At DRUPA 2000 four companies - members of the consortium CIP3: Adobe, Agfa, Heidelberg and MAN Roland - put forward a proposal to introduce the standard JDF. Further development of this format was submitted to the consortium CIP3, which in this context has been reformed in an open public organization and renamed CIP4 (one more letter P was added; it means Processes). Now, its full title is International Cooperation for Integration of Processes in Prepress, Press and Postpress. The new specification has always pulled the emergence of new concepts and definitions, for instance - Management Information System (MIS), JMF (Job Messaging Format).

So, we see that the printing market is multilingual and exactly the English language allows the companies to conduct international business. At present two trends are clearly seen in the printing literature: one is the usage of multicomponent terminological units in the form of terminological word-combinations and compound terms, and the other is the widespread usage of abbre-

viated forms of these units.

At first sight, the trends seem to be alternative. In fact, they constitute a unity of opposites, which reflects the existing patterns in termbuilding caused by, on the one hand, the complexity of phenomena, objects and concepts, which serve as multi-nomination terminological units and, on the other hand, - a growing desire for economy of language resources in the connection with the acceleration of the process of communication.

The detailed description of originating and developing the printing terminology in general was given by V.P. Sorokaletov in his thesis in 1981. According to his researches the morphological method of the printing term-formation dominated (more than 50% of all studied printing terms). But he made the prognosis that there was an increasing tendency to form multi-component term-combinations in the printing terminology in future. Abbreviation as a method of the term-formation in the printing terminology was not defined at all.

Evidently, a lot of Russian (L.M. Alekseeva, K.Ja. Averbukh, G.O. Vinokur, etc.) and foreign (Stephan Gramley and Kurt-Michael Pätzold, Valerie Adams, etc.) scientists studied scientific and technical term-formations in general, but we analyzed the tendency and peculiarities of the printing term-formations for last two decades that had not been done before by any scientist. The choice of printing terms-abbreviations was due to the fact that most of them appeared at the end of XX century, both in new and existing brunches of printing production that continue their development. The abbreviations are found in the almost every studied group, but more often in those sections that relate to the software of new digital technologies and processes in the modern printing industry.

The term forming by abbreviation is possible in the new era printing through the emergence of new multicomponent termcombinations. In our opinion, the fact that scientific and technical speech taken as a laconical, lucid, logical sequence of presentation can not afford the excessive proliferation of terminological phrases affects the components quantity of the terminological combinations, therefore, abbreviations appear.

This paper has examined the productivity of traditional and entirely new methods of the terms-abbreviations building in order to identify the regular trends. Abbreviations in the printing terminology are built by more various ways than in the literary language (there are two main types of abbreviations: shortening the word according to the initial letters or its principal parts. We have much more shortening ways in the English printing industry terminology. But in most cases all of these acronyms are structurally formed by the rules. This is actually abbreviated models. They can be convertible terms not only with the full name, but also with each other, since the same term can be shortened in different ways. As in the scientific literature there are different ways of classifying the abbreviation building as well as different views on certain types of the term-shortenings, we believe on the basis of the studied material it is possible to offer the following models of terminological abbreviations that are the most convenient for their classification (partly we use the classification of L.B. Tkachova). Thus, we were able to determine the following abbreviations models:

1) initialism: the shortened form is built only by the initial letters of the terminological phrase components or word: DI (Direct Imaging), FDD (Floppy Disk Drive);

2) truncation: the shortened form is built by retaining the first syllable, rarely the second or the last in the term or in the components of terminological phrases: expo - exposition, prog - progressive proof;

3) contraction: the shortened form is built by retaining a number of consonant letters of the term, thus creating the consonantive abbreviation, or through telescoping when only a part of the terminological phrase components or compound words is shortened, the other one remains unchanged: RESEDIT (RESource EDItor), REL (Recorder Element);

4) acronyms: a shortened form is built by initial abbreviation accidentally coincided with the literary word or by a deliberate truncation of one or more components of the terminological phrase for the easy pronunciation: FIRST (Flexographic Image, Reproduction, Specification, Tolerances), FAT (File Allocation Table).

Usually, abbreviations are used more frequently than the terms themselves: PC (personal computer), LAT (Laser Ablation Transfer), ADA (Apparent Dot Area), CTI (Continuous Tone Image). Typically, the abbreviation is to be spelled: APP (Automatic Page Position) – [ei, pi:, pi:], PDF (Portable Document Format) – [pi:, di:, ef], JDF (Job Definition Format) – [dʒei, di:, ef]. For instance: "In imagesetter manufactured by Heidelberg Prepress company for example it is necessary to enable Collect Mode and to disable APP to enable this mode ... or ... MetaDimension is based on PDF format and aimed at actively developing JDF format".

When abbreviation occurs only in the written form Dmax (dee-max) - maximum density, Dmin (DEE-min) - minimum density, it is read as a complete word.

In accordance with the traditions and norms of word-building initialisms are the most numerous in the English terminology of the modern polygraphy (171 units, which represents 77,4% of the total number of abbreviations in the 221 units), for example: NIP (Non-Impact Printing), CPT (Clean-Plate Technology), PMT (PhotoMultiplier Tube), BFT (Binary File Transfer), IPC (Intelligent Press Control), DPM (Digital Plate Master).

As for the truncated terms there are only12 units (5.4%). It should be noted that in most cases, as in other terminologies, the main type of truncation is a truncation of the final part of the term (apokope): flexography - flexo, exposition - expo, chrome - Cromalin, REV - reverse, RES - reset, PROG - program, HiFi - High Fidelity. In our abbreviations there are no examples of truncating the beginning of the term (syncope), but we found one sample showing a mixed truncation: tranny - TRANspareNcY.

Building the telescope nominations or terms contraction can be considered as the manifestation of the law of speech means economy, the principle of the least effort. There is a tendency of increasing such telescope nominations among the neologisms of recent decades. According to our data they accounted for 4.1% (9 units) of the total number of newly abbreviations: twip-Twentieth of a Point (1/1440th of an inch), pel - Picture Element (pixel),, stepper - a STEP-and-rePeat machine, stet - LET it Stand, ECOSYS - ECOnomy, ECOlogy SYStem, sysop - SYStem Operator.

The telescope nominations as well as the com-

pound terms reflect the tendency of rationalizing and univerbalizing the language, show varying degrees of ruggedness and motivation, which is lower than that of the compound terms, because of the lack of truncated components.

There are 15 acronyms (6.8%) among 221 terms-abbreviations. The acronyms occur in such thematic groups as the "software", "the systems and technologies of printing". Unlike the other types of abbreviations, acronyms are pronounced as a full word. For example, ROOM (Rip Once, Output Many), NORM (Normalize Once, Output Many), ROM (Read Only Memory), DRAW (Direct Read After Write), DOP (Digital Offset Printing), HOT (Holographic Optical Tracking).

Acronyms also include homophones, i.e. abbreviations that are similar in sound to the words of the common vocabulary. There are 14 terms (6.3%) among 221 abbreviations, for example: WORM (Write-Once-Read-Many), TIC (Total Ink Coverage), PIC (Picture Image Compression). It is known that the term "laser" is widely used in the sphere of graphic arts production and this term is also the acronym. The term "laser" is built from the initial letters of the following words: light amplification by stimulated emission of radiation. Often it has grammatical features of standard words, such as plural: «In lasers, the electrons are bound in atoms or stuck in a piece of semiconductor crystal».

The acronyms usage, as a rule, is clearly limited by the scientific and technical fields. Restrictions on the acronyms usage are prescribed by the denotative meaning of the words included in them. For example, SNAP (Specification for Non-heat Advertising Printing).

Among the terms-abbreviations of recent decades there have been phenomena of ambiguity and synonymy. These linguistic phenomena are observed among the initialisms more often. Sometimes the abbreviation may be both ambiguity and synonymy. The abbreviated terms serve a dual role with regard to the convenience of their usage in various scientific and technical terminological systems.

The synonyms-abbreviations usually occur within the printing production term system. Compare: CAD / CAD - Computer-aided Design / Computer-Assisted Design - CAD, CAM / CAP - Computer-aided Manufacturing / Computer-Aided Production - Automated production.

The abbreviations in the printing production terminology may cause both intra-or interbranch ambiguity, for example: DTR - DeskTop Reproduction / diffusion-transfer-reversal, SGML - Standard Generalized Markup Language / Structured Graphics Markup Language, IPA - International Phonetic Alphabet / International Phonetic Association / International Prepress Association, HD - Hard Disk / High density, SID - Solid Ink density / Standard Ink densities, CtP - Computer-to-Plate System / computer-to-Press System / Computer-to-Print System, LED - Light Emited Diode / Light Emited Diode Display, FM - Front Master / Frequency.

So, the initialisms prevail among the terminological abbreviations of the printing production at the present stage of its development, accounting for 77.3% of the total number of terminological abbreviations. The terms-abbreviations play an important role in a modern professional, newspaper and publicistic speech, the computer communicating via the Internet, i.e. in the styles of speech communication, where the tendency to the statement efficiency is extremely appreciable. Not surprisingly that in the late twentieth century abbreviations have become an integral part of the printing terminology. The sharp economic and technical raise, the computerization of nearly all printing processes - all this has caused the need for delivering the information quickly to all parts of the world, and this fact has had a considerable influence on changes in the printing production term system.

As a result of the study we have got the following data: building various types of abbreviations has become typical in the English printing production terminology. This fact is explained by the historical tendency to the language means economy, manifested in the inflections loss, preferably using one or two syllable words, shortened grammatical forms. The tendency to shortening in the printing terminology should be considered as a natural response of native speakers to the significant increase of the number of multicomponent terminological combinations causing the difficulties in the process of professional communication.

(first received: 19.02.09)

Inessa Rozhnova

Candidate of Philological Science, Docent, Omsk State Technical University, The Second Language Department

litunov@rambler.ru

Bibliography
1. V. Adams/An Introduction to Modern English Word-Formation/, 1988. – P. 133-146.
2. L.M. Alekseeva/The Problems of a Term and a Term-Formation: The textbook for the special course. – Perm: Perm State University/, 1998. – 119 p.
3. K.Ja. Averbukh/The Term as the Object of Studying and the Tool of Knowledge Fixation and Transmission // Scientific and Technical Terminology/, 1991. – Issue 1. – P. 33–40.
4. S. Gramley, K. Pätzold/ A Survey of Modern English/, 2002. – P. 163.
5. D. W. Maurer, F.C. High/New words – where do they come from and where do they go //American Speech/, 1982. - No 55. – P. 25-32.
6. A. Rey/The Concept of Neologism and the Evaluation of Terminologies in Individual Languages.// John Benjamins Press/, 1995.
7. Russian Terminology Science (1992 – 2002) S.D. Shelov, V.M. Leichik (eds) together with H. Picht and C. Galinski (IITF-Series 12) 1. Auflage – Wie: TermNet Publisher, 2004, 462 p.
8. V.P. Sorokaletov/Formation and Development of the English Printing Terminology//Ph.D. thesis. – L.: 1981. – 140 p.
9. B. Spolsky /Sociolinguistics// Oxford University Press/, 1998. – 205 p.
10. L.B. Tkachova /The Basic Rules of English Terminology// Tomsk. – Tomsk University Publishing/, 1987. – 200 p.
11. G.O. Vinokur/About some examples of the world-formation in the Russian technical Terminology.// Proceeding MIPhLI. Philological faculty. V.5 – M., 1939. – P. 5..
12. Burgos Frank Reproducing Color in the Flexo Pressroom. http://www.flexoexchange.com/gorilla/reprod-color.html
13. Core Erin Empowering Plates/Graphic Arts Monthly No5 – 2004.
14. Core Erin Eight-Up CTP Innovates/Graphic Arts Monthly No7– 2004.
15. Digital Direction Printing Inc – Commercial Printing Solutions, http://www.ddprinting.com/
16. DigiPrintMedia – 2002, http://www.digiprintmedia.ru/2002/eng/about/press_releases/55.stm
17. Joost Kist Electrinic Publishing Looking for a Blueprint. – London, New York: Routledge, 1988. – 223 p.
18. Photopolymer Platemaking: The Light Finishing Step, http://www.flexoexchange.com/gorilla/light_finishing.html
19. Thomson Bob Printing Materials: Science and Technology. – Riga, 1998. – 607 p.
20. Merriam-Webster Collegiate Dictionary, in Britannica 2001 Deluxe Edition CD-ROM. Copyright © 1994 Merriam-Webster, Inc.
21. New Encyclopedia Britannica. - Chicago, Auckland, London, Madrid, Manila, Paris, Rome, Seoul, Sydney, Tokyo, Toronto: Encyclopedia Britannica Inc., 1994. – V. 1-29.
22. The English Prepress Dictionary. File://E:\допечать-словарь\The%20prepress%20dictionary18.htm
23. Weinnrich P. International encyclopedia of abbreviations and acronyms of organisations. Vol. 1-10. – München, 1990.