Terminology Work, Terminology Management, Terminography – Potato, Patato or Not Exactly?

Terminologijos darbas, terminų tvarkyba ir terminografija – tas pats ar ne visai?

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ABSTRACT

This paper focuses on the definitions of three broad concepts of Terminology which are sometimes considered identical, sometimes partly overlapping, and sometimes different – *terminology work*, *terminology management*, and *terminography*. I use the latest editions of ISO standards on terminology work, terminology policies, and terminology products, as well as the two biggest manuals on terminology and terminology management as my research material. The methodology includes textual analysis, concept analysis, and semantic analysis. The referential part is followed by an analytical section, after which a set of principles is established for redefining the concepts, and tentative proposals are made on how they may be redefined.

KEYWORDS: terminology work, terminology management, terminography, terminology studies, terminology science, definition.

ANOTACIJA

Šiame straipsnyje pagrindinis dėmesys skiriamas trijų plačių terminologijos sąvokų „terminologijos darbas", „terminų tvarkyba" ir „terminografija", kurios kartais laikomos identiškomis, kartais – iš dalies sutampančiomis, o kartais – skirtingomis, apibrėžtims. Kaip tyrimo medžiaga naudojami naujausi terminologijos darbo, terminologijos politikos ir terminologijos produktų ISO standartų leidimai, taip pat du didžiausi terminologijos ir terminų tvarkybos vadovai. Metodika – teksto analizė, sąvokų analizė ir semantinė analizė. Po teorinės ir analitinės dalių pateikiamas principų rinkinys naujam sąvokų apibrėžimui ir preliminarūs pasiūlymai, kaip sąvokas būtų galima apibrėžti kitaip.

ESMINIAI ŽODŽIAI: terminologijos darbas, terminų tvarkyba, terminografija, terminologijos tyrimai, terminologijos mokslas, apibrėžtis.

1. INTRODUCTION

The broadest concepts are known to be the most difficult ones to define, and yet it is important to define them so that they do not become misleading. In this paper, I focus on the definitions of three broad concepts which are sometimes considered identical, sometimes partly overlapping, and sometimes different – *terminology work*, *terminology management*, and *terminography*. As definitions of specialized concepts are typically based on other specific concepts, I will also have to touch upon the definitions of several related concepts, such as *terminology science*, *terminology studies*, *terminology activity*, *terminology reference resource*, and *terminology tool*.

A good overview of the use and interpretations of the terms *terminology work*, *terminology management*, and *terminography* in the literature on terminology can be found, for example, in Anita Nuopponen's article (2018: 7–8). At the end of the overview, she makes the following conclusion: "In the terminological literature, various types of terminology work are described quite differently. There are many synonymous terms and cases of polysemy" (Nuopponen 2018: 8). However, the main focus of Nuopponen's article is on the classification of various kinds of terminology work, so she does not elaborate on the intention or definitions of the three concepts any further. Nuopponen's article was also based on the now outdated editions of the ISO standards.

In the updated overview of the state-of-the-art, my special focus is on the latest editions of the pivotal ISO standards on terminology work, namely "Terminology work and terminology science – Vocabulary" (ISO 1087:2019) and "Terminology work – Principles and methods" (ISO 704:2022). I will also study related standards, such as "Terminology work in support of multilingual communication" (ISO 12616-1:2021), "Terminology policies – Development and implementation" (ISO 29383:2020), and "Terminology products and services" (ISO 22128:2008). The second important part of my material is the two biggest manuals of terminology and terminology management – "Handbook of Terminology Management" (HTM) and "Handbook of Terminology" (HOT).

After the analysis of these sources, I will point out the issues in the definitions which I consider problematic, explore the concepts from the point of view of their essential and secondary characteristics, establish a set of principles aimed at clearer delimitation and definition of these concepts

and the use of the corresponding terms, and make a tentative proposal for the redefining of the concepts. The methodology includes textual analysis, concept analysis, and basic semantic analysis.

2. DEFINITIONS OF TERMINOLOGY WORK, TERMINOLOGY MANAGEMENT, TERMINOGRAPHY AND RELATED CONCEPTS IN ISO STANDARDS

It is impossible to analyze all of the 80 standards issued by the ISO Technical Committee 37 ("Language and Terminology") within the scope of this article, but this is also unnecessary for two reasons. First, not all of these standards are relevant when discussing the definitions of the selected concepts, and second, most of these standards accept the definitions from the pivotal standards "Terminology work and terminology science – Vocabulary" (ISO 1087:2019) and "Terminology work – Principles and methods" (ISO 704:2022). I will start by examining these two standards.

2.1. Definitions in the pivotal ISO standards on terminology work

In the pivotal standard ISO 1087:2019 "Terminology work and terminology science – Vocabulary", *terminology science* is considered a synonym of *terminology studies*, and both are defined as "science studying *terminologies*, aspects of *terminology work*, the resulting *terminology resources*, and *terminological data*" (ISO 1087:2019: 2). *Terminology work*, in its turn, is considered synonymous with *terminology management*, both being defined as "work concerned with the systematic collection, description, processing and presentation of *concepts* and their *designations*". A note to the entry states that "terminology work often aims at creating and maintaining *terminology resources*" (ISO 1087:2019: 13). Another note says that terminology work often aims at *terminology planning* and can involve *concept harmonization*, *term harmonization*, and *term formation*.

The *terminology management system* is defined as a "software tool with a metadata structure specifically designed for collecting, maintaining, and accessing terminological data". *Terminography* is defined in this standard as "*terminology work* aimed at creating and maintaining *terminology resources*" (ISO 1087:2019: 13).

As the above-mentioned definitions contain references to several other central concepts, their definitions have to be looked up as well. *Terminology resource* is considered a synonym of *terminological data collection* and

is defined as a "collection of *terminological entries*" (ISO 1087:2019: 15). *Terminological entry* is a "collection of *terminological data* related to only one *concept*" (ISO 1087:2019: 14). *Terminological data* is "data related to *concepts* and their *designations*" (ISO 1087:2019: 14).

ISO 704:2022 "Terminology work – Principles and methods" introduces the concept of *ad hoc terminology work* in which the emphasis is on how terminology is used in practice (ISO 704:2022: 45). *Ad hoc terminology work* is implicitly opposed to *systematic terminology work* in which the emphasis is on concept relations and concept systems. Users are redirected to ISO 12616–1:2021 "Terminology work in support of multilingual communication" for more information on the subject. ISO 12616–1, indeed, states in Note 3 to the definition of *terminology work* that terminology work can be carried out in a systematic or ad hoc fashion (ISO 12616–1:2021: 3). There is also a table (see Table 1) that juxtaposes some of the critical differences between systematic and ad hoc terminology work (ISO 12616–1:2021: 3).

Table 1. The main differences between systematic and ad hoc terminology work, according to ISO 12616-1:2021

	SYSTEMATIC	AD HOC
Focus	Classification of the concepts in a subject field	Solving terminological problems that occur in specific situations, e.g. a translation project
Linguistic level	Designations only	Designations and other text elements
Main approach	Onomasiological	Semasiological
Starting point	One subject field	One text in a source language
Result	Concept entries that are more or less connected in a larger system	Individual entries

Interestingly enough, *terminology management* is not mentioned in ISO 704:2022 even once, although it is supposed to be a synonym for *terminology work*, according to ISO 1087:2019, and ISO 704:2022 is a newer standard. *Terminography* is mentioned only once – it is contextually defined as "creating and maintaining terminology resources, principally in print and electronic media" (ISO 704:2022: vi). In ISO 12616–1:2021, the terms *terminology work* and *terminology management* (and, to some extent, *terminography*) are used somewhat interchangeably in the table of contents and the text.

2.2. Definitions in the ISO standard on terminology policies

As ISO TC-37 standards are produced in several committees, and their life cycle varies, some relevant definitions remain unsynchronized with the pivotal standards at least for some time, which makes them interesting and valuable research material.

For example, in the ISO 29383:2020 standard ("Terminology policies – Development and implementation"), *terminology work*, *terminology management* and *terminography* are defined and commented on in a slightly different manner than in the ISO standards mentioned above. Note to entry 3.14 states that terminology work *includes* term extraction, concept harmonization, term harmonization and terminography (ISO 29383:2020: 3), so terminography is seen as a *part* of terminology work rather than its *kind*. Terminology management, in turn, is no longer a synonym of terminology work but is defined as *methods* for collecting, maintaining, and accessing terminological data (ISO 29383:2020: 3).

At the same time, this ISO standard introduces an interesting and useful juxtaposition between *terminology users* and *terminology managers*. Terminology users include resource and documentation developers, translators, lawyers, marketing staff and others; as stakeholders of the terminology planning activities, they are interested mostly in searching and using terms and terminological data (ISO 29383:2020: 15–16). Terminology managers are *terminologists* and *information processors* who are responsible for the *development and maintenance of databases and other terminological resources*; they are concerned with the implementation of terminology policies in the form of terminological resources, first of all, terminology databases. This juxtaposition may be useful for discovering additional meanings of these terms depending on the type of terminology activities and thus refining the definitions of *terminology work* and *terminology management*.

2.3. Definitions in ISO standard on terminology products and services

Speaking of various points of view that help to better understand the relations between *terminology work*, *terminology management* and *terminography*, it is useful to have a look at the kinds of terminology products and services that are produced as a result of various kinds of terminology activities. The ISO 22128:2008 standard "Terminology products and services – Overview and guidance" provides a detailed classification of

such products and services. This standard was last reviewed and confirmed in 2020, therefore the 2008 edition remains current.

Interestingly enough, the terms *terminology work* and *terminology management* are not mentioned at all in this standard, while there are 45 hits for a wildcard search "terminograph*". ISO 22128:2008 introduces two central concepts: *terminology product* and *terminology service*:

> **3.13 terminology product**
> product that supports special language use or the field of terminology
> NOTE Products that support special language use refer to dictionaries, databases, and other products for the dissemination of specialized terminology while products that support the field of terminology refer to journals, training manuals, tools, etc.
>
> **3.14 terminology service**
> service that involves the production and/or dissemination of terminology or terminographical products or supports education in the field of terminology (ISO 22128:2008: 3).

Terminology products fall into four categories, according to this standard:
- terminographical products;
- terminology documents;
- educational products;
- terminology tools (ISO 22128:2008: 3).

Terminographical product is defined as "terminology product consisting of a set of designations and terminological and/or linguistic information to support special language use" (ISO 22128:2008: 2). According to the standard, this category represents the largest set of products and forms the core of the terminology products produced by terminologists. This category includes, for example, printed and electronic terminologies, terminology databases, systematic terminologies for information management, terminology lists, etc. (ISO 22128:2008: 4).

As far as we can see, the definition of *terminographical products* implies that they are dictionary-style reference products with the "left-hand side" (a list of terminological designations) and the "right-hand side", i.e. some terminological and/or linguistic information related to them. Systematic terminologies and terminological databases are seen as only one possible type among others (although the list of terminographical products in ISO 22128:2008 is based on several bases of division, so the types of terminographical products do not exclude each other). The main characteristic

of systematic terminologies, according to the standard, is that they are collections of terminological entries arranged systematically according to classes or in concept systems (ISO 22128:2008: 8). Systematic terminologies include various types of products, such as nomenclatures, taxonomies, thesauri, and ontologies (ISO 22128:2008: 8).

Another category of terminology products, *terminology documents*, include any documents that deal with terminology issues and questions. Terminolographical entries do not constitute the bulk of the document's content, although it may include embedded terminologies. This category of terminology products includes terminology journals, terminology bibliographies or catalogues, prescriptive terminology documents, and terminology policy documents (ISO 22128:2008: 11).

Educational products include any product developed for teaching in a formal educational institution or for less formal training in the context of professional development. This category includes any product or any document used to "teach terminology, train terminologists or advance the profession of terminology" (ISO 22128:2008: 12). According to the standard, this category of products includes, for example, terminology manuals, terminology courses, terminology seminars, and terminology tutorials.

The last group of terminology products, according to the ISO 22128:2008 standard, includes *terminology tools* – computer applications that assist terminologists in the production and delivery of terminology products and services. A deliverable can be developed as a single tool, in combination with other tools in an integrated system or adapted and customized from existing applications. This category includes: terminology management systems, tools for terminology extraction, look–up, comparison, publishing, annotation, conversion, indexing, submission, replacement, checking, and aligning, as well as terminology statistical tools, terminology workflow tools, terminology tools for localization, and concordance tools for terminology (ISO 22128:2008: 13). As we can see, the range of terminology tools is quite wide and not limited only to terminology databases and terminology management systems.

Terminology services, in turn, fall into the following categories: terminology consulting services, terminology management services, services for the preparation and delivery of terminographical resources, tool development services, reference and information services, educational services, and certification services (ISO 22128:2008: 16).

The conclusion we can make after examining the ISO 22128:2008 standard is that terminology work/management, as defined in ISO 1087:2019, may be associated only with a small part of the whole gamut of terminology products and services. A group of publications which is missing from the ISO 22128:2008 standard are academic publications on terminology, such as theses, monographs, and conference proceedings. They belong somewhere in between terminology documents and educational products. Another possibility is to consider them terminological "metaproducts", which are not products or services per se but promote terminology science and terminology activities in general. A clear added value of the ISO 22128:2008 standard is also the concept of a *terminographical product*, the definition of which is very close to that of a terminological reference resource.

3. DEFINITIONS IN MANUALS ON TERMINOLOGY AND TERMINOLOGY MANAGEMENT

In this section, I will examine explicit and contextual definitions of the concepts of interest in the two biggest handbooks on terminology and terminology management published by the John Benjamins Publishing Company: the "Handbook of Terminology Management" and the "Handbook of Terminology". Both manuals are collections of articles on various aspects of terminology work and terminology management written by prominent researchers and experts in terminology.

3.1. Definitions in the "Handbook of Terminology Management" (1997)

The editors of the "Handbook of Terminology Management" (HTM) mention several reasons for having selected the term *terminology management* over the terms *terminology work* and *terminography*. First, they consider it to be the only candidate term that fully encompasses the wide range of terminology activities covered by the Handbook. Second, the terms *terminography* and *terminology work* are, in their opinion, too narrow or lack universal acceptance, particularly among native and habitual speakers of English. Third, *terminology management* constitutes a parallel concept to *information management*. The Handbook also mentions *data elements* (discrete, identifiable, retrievable pieces of data) as the central element of terminology management (HTM: 2).

For the Handbook, terminology management is defined very broadly as "any deliberate manipulation of terminological information" (HTM: 1). According to the Handbook, this very general concept covers:

- practical terminology management as it has been carried out by domain specialists in order to fill their need for precise and unambiguous language in the form of both the concepts they create and with which they think, as well as the corresponding terms they use to communicate with each other;

- the systematic recording of such information and its presentation as dictionaries, terminology collections, and terminology databases; and

- the ad hoc retrieval of such information for the purposes of translation and interpreting, for text production as a function of technical communication, and for information management (HTM: 2).

3.2. Definitions in the "Handbook of Terminology" (2015)

A more recent "Handbook of Terminology" (HOT) addresses a wide range of topics related to terminology. Although the word "management" is not included in the title of the book, it is parenthetically mentioned in the annotation on the front page: "The Handbook of Terminology <...> aims at disseminating knowledge about terminology (management) and at providing easy access to a large range of topics, traditions, best practices, and methods <...>". The word combination *terminology management* occurs 290 times in the Handbook, while the search for *terminology work* yields 192 hits, and *terminography* 32. These results are only indicative, as some of the hits are derived from the references, keywords, headers, index words, and parts of longer terms, such as *terminology management system* or *terminology management project*.

Unlike the compilers of "the HTM", the editors of "the HOT" do not provide explicit, strict definitions of *terminology work*, *terminology management*, or *terminography* in the preface. The authors of two articles (Steurs, De Wachter & De Malsche 2015: 222; Karsch 2015: 291–292) accept the definition of *terminology wor*k from the ISO 1087 standard: "work concerned with the systematic collection, description, processing and presentation of concepts and their designations". There is also a definition-like explanation of what "management of terminology" is: "Management of terminology (as an element of knowledge management) is part of the terminology work, which deals with the capturing, processing, updating and preparation of terminological data" (Steurs, De Wachter & De Malsche 2015: 224).

Other definitions and explanations are primarily contextual. I have manually gone through all the occurrences of the word combinations *terminology work*, *terminology management* and *terminograph** (the latter word with a wildcard to also catch such forms as *terminographical* or *terminographer*) and explored the context. I would like to bring up some contextual definitions that are relevant to the study.

> Terminology work involves the collection, analysis and distribution of terms (Faber 2015: 14).

> Terminology work is concerned with the clarification of concepts and with the linguistic designations used to represent the concepts in communication (Madsen & Thomsen 2015: 250).

> The rigor and systematicity with which to go about terminology work increase from descriptive to normative. <...> Terminology work that is prescriptive and often more systematic in nature, results in terminological products that can be used by many audiences for a variety of purposes and for a long time without much maintenance. According to Cabré Castellví (Cabré Castellví 1999: 222), terminologists should be the only ones doing this type of work. Furthermore, the product of their work must reflect the understanding and knowledge of the subject matter expert (Karsch 2015: 294).

> Some scholars claim that it (*onomaciological approach – I.K.*) is rarely adopted in the practice of terminography (an oft used word for terminology management) (Warburton 2015: 362).

> The term terminographer is sometimes used to refer to the terminologist when the focus is on the practical work of developing term bases (terminography), in parallel to lexicographer who produces dictionaries (lexicography) (Warburton 2015: 374).

> Roughly speaking, "terminography" is a term assigned to the first meaning of terminology listed at the beginning of this section, consisting of practices, activities, methods and know-how related to collecting and describing terms, compiling terminological lexicons, establishing concept systems or ontologies, making thesauri, etc. which constitute an important aspect of terminology (Kageura 2015: 56).

4. DEFINITION OF TERMINOGRAPHY IN LITERATURE ON LEXICOGRAPHY

A discussion on various meanings of the term *terminography* would be incomplete without its relation to the term *specialised lexicography*. In 1975, the ISO 1087 standard introduced the term *terminography* as a replacement for the term *terminological lexicography*, thus nurturing the differentiation between lexicography and terminography (Fuertes-Olivera, Tarp 2014: 27). The new term was coined on the analogy of lexicology: lexicography::

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terminology: terminography, but the primary aim of this term was to emphasize that lexicography should deal with the description of the general vocabulary only, whereas specialized terminology should be accounted for by another discipline (Burkhanov 1998: 240). This also led to a "frantic search for differences, perhaps in the effort to present terminography as something real unique" (Bergenholtz, Kaufmann 1997: 93). The differences aimed at opposing terminography and lexicography have been discussed and dismissed in multiple publications by scholars doing research in specialised lexicography (Fuertes-Olivera, Tarp 2014: 27). Despite this, strong opposition persists, with many researchers maintaining their positions and appearing unwilling to engage further in the debate (see, for example, Kageura 2015: 57–58). For this research, we merely need to acknowledge that one interpretation of the term *terminography* equates it with *specialised lexicography*, which can be defined as "a complex of activities concerned with the design, compilation, use and evaluation of specialised dictionaries" (Hartmann, James 1998: 129; see also Fuertes-Olivera, Tarp 2014: 7).

5. SEMANTICS OF THE WORDS "WORK" AND "MANAGEMENT"

Before discussing the definitions of *terminology work* and *terminology management* any further, it is useful to look up the dictionary definitions of their superordinate general language concepts – *work* and *manage(ment)*, in the Merriam-Webster Dictionary (MW), which positions itself as "the America's most trusted dictionary". Definitions of the corresponding verbs are more informative than those of the nouns. As the definitions are quite extensive, the readers are prompted to consult them online. What is important in the definitions of *work* is that it is a goal-oriented, repeated, and sustained activity. From the definitions of *manage* we can pick up the following semantic characteristics: a certain degree of skill, altering for a purpose (e.g. rearranging), and an attempt to curb and make use of something wild and powerful.

6. OBSERVATIONS AND ISSUES

In this section, I will list my observations and draw attention to some issues I have noticed in the definitions of *terminology work*, *terminology management*, and *terminography*.

The first observation is that these central concepts are not always provided with explicit, strict definitions in terminology-related standards and

handbooks on terminology (management). The second observation is that definitions vary a lot, even in the terminology-related ISO standards which are supposed to be synchronized vis-à-vis the definitions of central concepts with the pivotal standards. This can, to some extent, be explained by the different life cycles of various standards, but not in all cases. At the same time, variation in the definitions is not always a bad thing, especially if the standards describe various types of terminology activities.

Some of the definitions are too broad and cover any kind of activities involving terminology, such as "any deliberate manipulation of terminological information" (HTM: 1). Besides, the word *manipulation* brings along negative connotations from one of its meanings – "to change by artful or unfair means to serve one's purpose" (MW).

On the other hand, concepts are sometimes deliberately narrowed for a specific purpose, without stating it explicitly. For example, the ISO 704:2022 standard predominantly describes the methodology of normative terminology work used in standardization and harmonization, which is reflected in the definitions of central concepts, while the reality in the world of business processes or translation and localization industry is different, cf.: "Having exceeded 50 years of operation, ISO/TC 37 has published 40 standards and is in the process of developing 15 more, yet none specifically addresses how to approach terminology for commercial purposes" (Warburton 2015: 362). Terminology work is defined in the ISO standards as systematic and concept-oriented, but ad hoc terminology work, which is also supposed to be a kind of terminology work, does not meet these criteria.

ISO 704:2022 ignores not only ad hoc (text-driven, semasiological) terminology work but many other types of terminology activities that result in the wide spectrum of terminology products and services described in the ISO 22128:2008 standard. The latter standard, in turn, does not cover (at least explicitly) a wide range of academic publications related to terminology (theses, monographs, proceedings, etc.). Due to the pragmatic character of ISO, its standards in general tend to focus only on practical terminology activities and ignore academic/theoretical research and types of terminology activities which do not result in a tangible product or service. The academic world, in turn, is often criticized for residing in the ivory tower and having little interaction with the commercial environment, cf. "Terminology management continues to be perceived as an academic pursuit" (Warburton 2015: 363).

This all brings us to a larger problem: handbooks on terminology (management) are collections of articles written by dozens of authors from various points of view. There is nothing wrong with this per se, but currently, there seems to be no coherent *general* theory of terminology management. This leads to situations when definitions are too narrow and potentially inapplicable to other types of terminology work/management, but the authors intentionally or unintentionally forget to indicate the right "namespace" (applicable domain) of their definitions. Meanwhile, according to one of the rules of terminology work, such specific definitions have to be provided with notes like "in this glossary/domain", "for the purposes of <...>", etc. (cf. Sanastotyön käsikirja 1989: 64–65).

The relations between the central concepts differ a lot depending on the viewpoint. Quite often it is a reflection of power games. Is terminology work, for example, just a part of a dictionary project governed by the rules of specialised lexicography/terminological lexicography or is terminography just a kind (or part) of terminology work, fixing the results of it in the form of a dictionary? Are concept analysis or term extraction activities in their own right or only a part of the glossary compilation process/terminology work?

The exceeded influence of a particular language (typically US English), specific geographic regions (typically the US and the West in general), or particular organizations (e.g., centres for technical terminology and standardization) on the concepts and terms also constitutes a problem. It is hardly desirable that habitual speakers of English dismiss term candidates in environments where "international English" would be a fairer option. At the same time, of course, the rules of the English language and the general usability of the language should be observed in the process of term formation or when selecting term candidates.

7. A SET OF PRINCIPLES FOR REDEFINING THE CONCEPTS

In this section, I will try and formulate a set of principles that need to be taken into account when redefining the concepts of *terminology work*, *terminology management*, *terminography*, and related concepts.

1. Various theories may be effective in one case and ineffective in others. No single theory, methodology, data model, etc. should be declared the only correct one for doing terminology work/management.

2. Definitions should take into account various stages and actors of terminology activities: content production, content management, and content retrieval.

3. A distinction should be made between theoretical research and practical terminology activities. *Work/management* refers more to practical activities, primarily aimed at improving LSP communication, while *terminology studies/research* cover various kinds of activities, the task of which, among other things, is to provide guidelines for practical terminology activities. *Terminology studies* is hardly a good synonym for *terminology science*, as it may lower its status. As *terminology work/management* should be distinguished at least from *terminology studies/research*, a broader concept is required to cover both of them, e.g. *terminology activity*.

4. The "either-or", power game approach should be avoided and substituted with an interdisciplinary, holistic approach. For example, *terminography* should be considered an interdisciplinary science partly overlapping with (or rooted in) terminology science, lexicography and several other disciplines, on the one hand, and a kind of terminology activities, on the other.

5. As Myking (2007: 281) states, dichotomies "are important because they enable identification of the object of study as well as theoretical and methodological tenets. The price, however, is (over-)simplification". The prototypical and multifaceted approach may in many cases be more fruitful (cf. Nuopponen 2018: 8). For example, (fully) systematic terminology work and individual look-ups for terminological information may be seen as the two extremes, while the actual terminology work lies somewhere in between them (cf. Karsch 2015: 294; Kudashev 2020: 202). Fully systematic work would mean that all concepts and designations of a particular domain are covered and defined systematically with the help of concept analysis and other theoretically underpinned best practices. It should involve prominent domain experts and professional terminologists (cf. Karsch 2015: 294 above). The other extreme is an individual *terminology inquiry* aimed at a quick solution to a terminological problem at hand. The vast majority of terminology activities lack many characteristics of "fully systematic terminology work" but at the same time, they are more complex than simple look-ups for individual terms. The prototypical approach may also result in more tentativeness and ambiguity in definitions than the classical terminology work methodology prescripts (e.g. expressions like *mostly*, *mainly*, *predominantly*, and *often*).

6. As terminology activities are purposeful, their intended purpose is often a good candidate for an essential characteristic in their definitions ("aimed at", "with the focus on", "supposed to"). However, terminology activities do not necessarily end in (ready, tangible, publishable) products, they should not be defined solely through the terminology products they "result in". At the same time, "wherefore by their fruits ye shall know them", so the list of terminological products and services helps to delineate and define various kinds of terminology activities.

7. *Terminology work/management* may be project-like activities ending up with the creation of a concrete product or service, or they may be continuous processes. *Terminology work/management* should be first of all regarded as continuous processes, as *work* and *management* presuppose continuous efforts. The planning and follow-up stages should also qualify as parts of *terminology work/management*.

8. The objects of *terminology work* and *terminology management* (as a kind of terminology activity) are LSP designations and underlying special domain concepts and concept systems. The main purpose of terminology work/management is to improve LSP communication by producing various terminology products and services. *Terminography*, in turn, has to do only with *terminology reference resources* – collections of entries consisting of LSP designations and their terminological descriptions, organized in a way meant to speed up their retrieval.

In my opinion, *terminology reference resource* is a more transparent and exact term than *terminology resource* (ISO 1087:2019) or *terminographical product* (ISO 22128:2008). *Terminology resource* sounds as if it may refer almost to any source of terminological information, not only dictionary-like product (cf. one of the meanings of the word "resource" in the MW: "a source of information or expertise"). *Terminographical product* (as defined in ISO 22128:2008) would have been a good term candidate if only there was a consensus on what terminography is. If the meaning of terminography is narrowed to a technical part of systematic, concept-oriented terminology work (as in most ISO standards), the *terminographical product* becomes too narrow and specific, too. *Reference resource*, in turn, is a convenient upper concept for any dictionary/glossary-like piece of work where there is a set of designations organized for fast and convenient retrieval on one side and specific type of information about them on the other (see Hartmann, James 1998: 41, 116–117; Kudashev 2007: 47–48).

Terminological description is information about the form, meaning, origin, relations and usage of LSP designations. In terminology reference resources, terminological descriptions provide information that is supposed to help users understand, use or replace LSP designations in external contexts (cf. Kudashev 2013: 14). This characteristic helps to differentiate terminology reference resources from similar types of works like encyclopedias and handbooks.

LSP designations include not only prototypical terms but also other lexical and lexicalized units used in LSPs, such as nomenclature, appellations, professional slang, set phrases, and term elements (see Kudashev 2013: 48–64 for a discussion on what can be an object of description, for example, in a term bank).

9. *Work* and *management* are processes that require some degree of expertise and skill. In the context of terminology work/management, this can be interpreted as "based on a theory". Best practices and widely accepted methodologies may also help, but domains, languages, goals, etc. differ, so one has to know what they are doing and not just copy someone else's experience or rely on a single "universal" guide.

10. The use of the term *terminology management* in texts seems to refer to at least two different concepts: a broader and more abstract (= a kind of terminology activity, cf. *terminology management strategy*), and a more restricted and technical one (= computer-assisted processing of terminology data, cf. *terminology management system*). *Terminology management* (I) is usually conducted for the needs of a particular project or client, unlike *terminology work* which is usually conducted on a domain or subdomain level. Terminology management (II) seems to always relate to processes and operations performed with the help of computer applications (terminology tools) and is highly dependent on metadata which is of paramount importance for quality assurance (cf. Kudashev 2013: 15). Besides, a third meaning of *terminology management* is emerging (or should emerge): a field of knowledge studying the management of terminological data with the help of *terminology tools*.

8. CONCLUSION

In this article, I have examined three central concepts and terms of Terminology: *terminology work*, *terminology management*, and *terminography*, as well as several related concepts. After the analysis of their interpretations in the

ISO standards and two biggest handbooks of terminology (management), I have pointed out several issues in the definitions which I consider problematic and formulated a set of principles aimed at clearer delimitation and definition of the central concepts and the use of the corresponding terms. Based on these principles, I would like to present a tentative proposal regarding the definitions of the concepts, as well as two concept charts, which can be found in the Appendix. It should be noted that defining such broad and complex concepts requires thorough consideration from multiple perspectives. My goal is not to reject the existing definitions and replace them with new ones but rather to initiate a discussion on the subject within the terminological community. I hope that this research and the set of principles established above will contribute to improving the definitions and understanding of these three major concepts and branches of terminology activity.

REFERENCES

Bergenholtz Henning, Kaufmann Uwe 1997: Terminography and Lexicography. A critical survey of dictionaries from a single specialised field. – *Hermes, Journal of Linguistics* 18, 91–125.

Burkhanov Igor 1998: *Lexicography: A Dictionary of Basic Terminology*, Rzeszów: Wydawnictwo Wyzszej Zskoły Pedagogicznej.

Cabré Castellví M. Teresa 1999: *Terminology: Theory, Methods and Applications* 1, translated by Janet Ann DeCesaris, edited by Juan C. Sager, Amsterdam/Philadelphia: John Benjamins.

Faber Pamela 2015: Frames as a Framework for Terminology. – *Handbook of Terminology* 1, Kockaert Hendrik J., Steurs, Frieda (eds.), Amsterdam/Philadelphia: John Benjamins, 14–33.

Fuertes-Olivera Pedro, Tarp Sven 2014: *Theory and Practice of Specialised Online Dictionaries. Lexicography versus Terminography*, Berlin: De Gruyter.

Hartmann Reinhard, Gregory James 1998: *Dictionary of Lexicography*, London, New York: Routledge.

HOT 2015 – *Handbook of Terminology* 1, Kockaert Hendrik J., Steurs, Frieda (eds.), Amsterdam/Philadelphia: John Benjamins.

HTM 1997 – *Handbook of Terminology Management* 1. Basic Aspects of Terminology Management, compiled by Sue Ellen Wright and Gerhard Budin, Amsterdam/Philadelphia: John Benjamins.

ISO 704:2022 *Terminology work – Principles and methods,* Geneva: ISO.

ISO 1087:2019 *Terminology work and terminology science – Vocabulary*, Geneva: ISO.

ISO 12616-1:2021 *Terminology work in support of multilingual communication*, Geneva: ISO.

ISO 22128:2008 *Terminology products and services*, Geneva: ISO.

ISO 29383:2020 *Terminology policies – Development and implementation*, Geneva: ISO.

Kageura Kyo 2015: Terminology and Lexicography. – *Handbook of Terminology* 1, Kockaert Hendrik J., Steurs, Frieda (eds.), Amsterdam/Philadelphia: John Benjamins, 45–59.

Karsch Barbara Inge 2015: Terminology Work and Crowdsourcing: Coming to terms with the crowd. – *Handbook of Terminology* 1, Kockaert Hendrik J., Steurs, Frieda (eds.), Amsterdam/Philadelphia: John Benjamins, 291–303.

Kudashev Igor 2007: *Proektirovanie perevodčeskih slovarej special'noj leksiki*, Helsinki: Yliopistopaino.

Kudashev Igor 2013: *Quality Assurance in Terminology Management: Recommendations from the TermFactory project*, Helsinki: Unigrafia.

Kudashev Igor 2020: Sähköiset työkalut auttavat parantamaan terminologisen tiedon saavutettavuutta. – Hirvonen Maija, Kinnunen Tuija (eds.). *Saavutettava viestintä. Yhteiskunnallista yhdenvertaisuutta edistämässä*, Helsinki: Gaudeamus, 199–211.

Madsen Bodil Nistrup, Thomsen Hanne Erdman 2015: Concept Modeling vs. Data Modeling in Practice. – *Handbook of Terminology* 1, Kockaert Hendrik J., Steurs, Frieda (eds.), Amsterdam/Philadelphia: John Benjamins, 222–249.

Myking Johan 2007: Dichotomies: impossible and indispensable? – *Evidence-based LSP: Translation, text and terminology*, Ahmad Khurshid, Rogers Margaret (eds.), Bern: Lang, 265–283.

MW – *Merriam-Webster.* Available at: https://www.merriam-webster.com.

Nuopponen Anita 2018: Dimensions of Terminology Work. – *Terminologija* 25, 6–22.

Sanastotyön käsikirja 1989: *Sanastotyön käsikirja. Soveltavan terminologian periaatteet ja työmenetelmät, toimittanut Tekniikan sanastokeskus*, Helsinki: Suomen Standardisoimisliitto.

Steurs Frieda, De Wachter Ken & De Malsche Evy 2015: Terminology Tools. – *Handbook of Terminology* 1, Kockaert Hendrik J., Steurs, Frieda (eds.), Amsterdam/Philadelphia: John Benjamins, 222–249.

Warburton Kara 2015: Managing Terminology in Commercial Environments. – *Handbook of Terminology* 1, Kockaert Hendrik J., Steurs, Frieda (eds.), Amsterdam/Philadelphia: John Benjamins, 360–392.

APPENDIX

REDEFINED CONCEPTS AND RELATED CONCEPT CHARTS

terminology science

science studying the origin, development, functioning, description and documentation of *LSP designations* and special domain concepts

terminology activity

activity with the primary focus on *LSP designations* and special domain concepts or systems of concepts

terminology study

terminology activity aimed at studying *LSP designations* and special domain concepts or systems of concepts
NOTE: terminology studies may be conducted for theoretical or practical needs.

terminology work

systematic and theory-based terminology activity aimed at improving LSP communication on the domain or subdomain level by collecting and analyzing *LSP designations* and special domain concepts, providing them with *terminological descriptions*, and presenting the results in the form of terminology products or services

terminology management I *(terminology activity)*

terminology activity conducted for the needs of a particular project or client, aimed at collecting, (re)arranging, quick accessing, effective use and updating of *LSP designations* and their *terminological descriptions*
NOTE: terminology management is usually conducted with the help of *terminology tools*, especially terminology management systems

terminology inquiry

terminology activity aimed at the exploration and analysis of individual *LSP designations* and special domain concepts for solving a particular task related to LSP communication

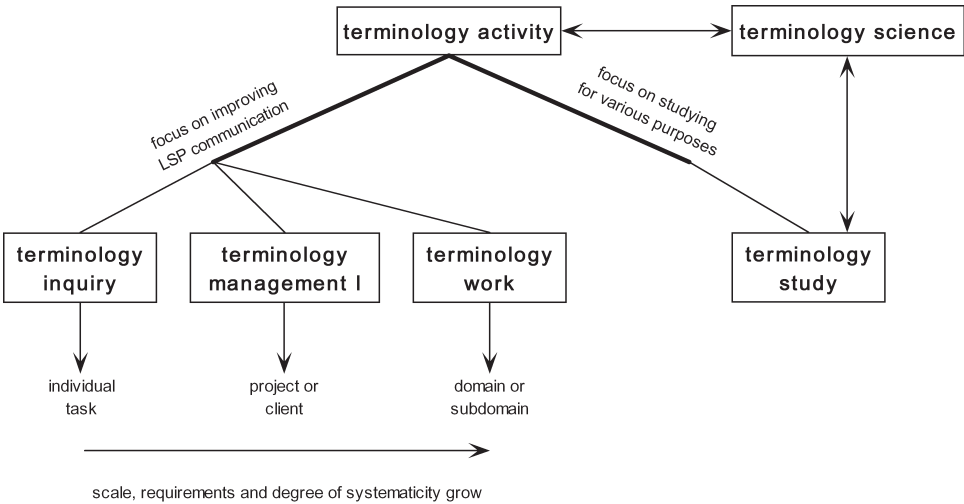NOTE: terminology inquiries may be conducted for theoretical or practical needs.

Figure 1. Types of terminology activities by their primary focus

LSP designation

lexical or lexicalized object in languages for special purposes

NOTE: In addition to terms, LSP designations also include proper names, professional slang, nomenclature, set phrases, and other lexical(ized) LSP objects.

terminological description

information about the origin, development, form, meaning, relations and usage of *LSP designations* as well as special domain concepts related to them

NOTE: In terminological reference resources, terminological descriptions provide information that is supposed to help users understand, use or replace LSP designations in external contexts

terminology reference resource

terminology product, the core of which constitutes a collection of entries consisting of *LSP designations* and their *terminological descriptions*, organized in a way meant to speed up their retrieval

NOTE 1: In addition to terminological entries, terminology reference resources may also contain outside matter (preface, user manual, appendices, etc.). An electronic terminology reference resource may also contain metadata required for its management.

NOTE 2: Terminology entries may be organized in multiple ways, depending on the purposes of the terminology reference resource and the philosophy of its compilers.

terminology tool

computer application intended to assist in mining, refining, retrieving, and performing other transactions on terminological data, as well as planning, producing, managing, using, and developing terminology products and services

terminology management system

terminology tool with a metadata structure specifically designed for creating, maintaining, and using *terminology reference resources*

NOTE: The terminology management system may incorporate other terminology tools, too, but its primary goal is the management of terminology reference resources.
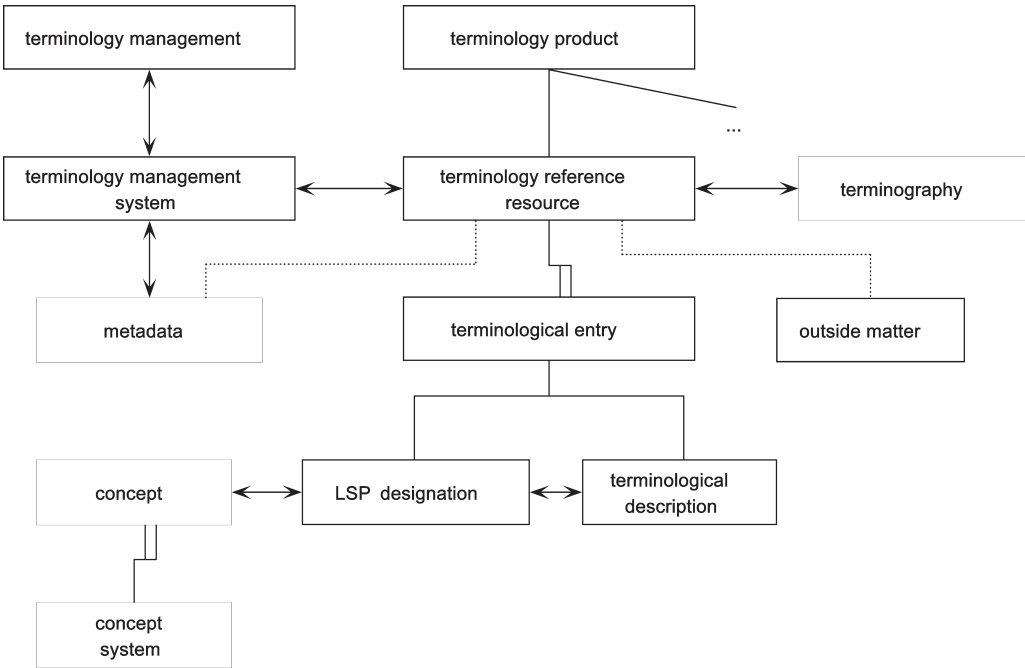

Figure 2. Terminology reference resources, terminography, and terminology management

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terminography I *(field of knowledge)*

field of knowledge studying the history, development, design, compilation, use, maintenance, and evaluation of *terminology reference resources*

    NOTE: Terminography (I) is an interdisciplinary field of knowledge that has its roots in terminology science, lexicography, information science, knowledge management, computer science, and computational linguistics.

terminography II *(terminology activity)*

terminology activity related to design, compilation, and maintenance of *terminology reference resources*

terminology management II *(data management)*

management of terminological data with the help of *terminology tools*

terminology management III *(field of knowledge)*

field of knowledge studying the management of terminological data with the help of *terminology tools*

    NOTE: Terminology management (III) includes planning, organization, implementation and maintenance of terminology tools as well as the methodology and workflows for computer-assisted management of terminological data.

TERMINOLOGIJOS DARBAS, TERMINŲ TVARKYBA IR TERMINOGRAFIJA – TAS PATS AR NE VISAI?

Santrauka

Šiame darbe daugiausia dėmesio skiriame terminų *terminologijos darbas, terminų tvarkyba* ir *terminografija*, kurie kartais laikomi sinonimiškais, apibrėžtims. Kaip tyrimo medžiagą naudojame terminologijos darbo, terminologijos politikos ir terminologijos produktų ISO standartus, taip pat du didžiausius terminologijos ir terminų tvarkybos vadovus. Mūsų metodika apima teksto analizę, sąvokų analizę ir pradinę semantinę analizę. Po teorinės ir analitinės dalių pateikiamas principų rinkinys naujam sąvokų apibrėžimui ir preliminarūs pasiūlymai, kaip sąvokas būtų galima apibrėžti kitaip.

Išsiaiškinome, kad minėtosios sąvokos ne visada aiškiai ir griežtai apibrėžiamos standartuose ir vadovuose. Jų apibrėžtys taip pat labai skiriasi, net ir standartuose. Kai kurios apibrėžtys yra per plačios, tačiau dažniau jos tikslingai susiaurinamos to neakcentuojant. Didelė problema, kad vadovai yra straipsnių rinkiniai, parašyti įvairiais požiūriais, ir, rodos, kad nėra nuoseklios b e n d r o s terminų tvarkybos teorijos.

Siūlome atskirti terminus *terminologijos mokslas*, *terminologijos tyrimai* ir *terminijos analizė*. *Terminologijos darbas* turėtų būti skirtas sisteminei ir teorija pagrįstai terminologijos veiklai, kuria siekiama pagerinti dalykinę komunikaciją srities ar posričio lygiu,

pavadinti. Terminas *terminų tvarkyba* platesne prasme reiškia terminologijos veiklą, vykdomą konkretaus projekto reikmėms ar kliento poreikiams tenkinti. Specialesne prasme jis reiškia terminologinių duomenų tvarkymą naudojant terminologinius įrankius. Be to, atsiranda ir trečioji termino *terminų tvarkyba* reikšmė: žinių sritis, tirianti terminologinių duomenų tvarkymą terminologiniais įrankiais. Nedidelės apimties terminologijos veikla, atliekama sprendžiant konkrečią terminologinę problemą, tikriausiai turėtų būti vadinama *terminijos analize* (o ne *ad hoc terminologijos darbu*). *Terminografija* yra ir tarpdalykinė žinių sritis, ir terminologijos veikla, apimanti terminijos išteklių (ir tik jų) projektavimą, sudarymą ir priežiūrą.

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