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Terminology planning from term-smithing to supporting interoperability

The Finnish case

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Abstract

The conscious planning of the Finnish language and terminologies began in the 1800s as a central part of building national identity. A standard language and uniform rules for writing were agreed upon. Educated individuals – “wordsmiths” and “term-smiths” – and professional societies took this challenge enthusiastically and coined words and terms for all sectors of society. Today, the Centre for the Languages of Finland is the authority on language planning, while the Finnish Terminology Centre has the expert role in terminology planning. Terminology work is decentralized and often carried out by working groups in institutions, associations, government agencies, etc. Their goals include keeping the Finnish language and terminologies easy to use, learn and understand – not forgetting the needs of information systems.

Keywords: Finnish language, terminology planning, language planning, terminology work, loanwords, new words, Finnish Terminology Centre, concept analysis, systematic terminology work.

1. Introduction

This chapter gives a general overview of the development and state-of-the-art of terminology planning and work of the Finnish language and sets it in the historical context of language planning in Finland. Section 2 discusses the road of the Finnish language from various spoken dialects to a fully developed language with a written language and a unified standard language as well as a language with terminologies for all the fields of culture, education and science. Section 3 presents the organizations that are active in language planning and terminology planning today, starting from the leading organizations and then giving some examples of field-specific organizations and terminological infrastructure projects. Section 4 discusses special features of the methods for terminology work and creating Finnish terms, especially loanwords, as well as attitudes towards them and the English influence. Section 5 summarizes the development of Finnish terminology planning, its relation to language planning, and discusses some trends for the future as seen by both language and terminology planners.

According to the Language Act (423/2003), the national languages (official languages) of Finland are Finnish and Swedish. In addition to these two, the

Saami languages¹ have their own law. The legislation and the government's language policy programme addresses also Finnish Romani, Finnish and Finland-Swedish sign languages, as well as Karelian, which is closest to the Finnish language and with an equally long history in Finland (Kotimaisten kielten keskus 2024; Kielipoliittinen ohjelma 2022:39–59).

The map in Figure 1 shows those administrative areas where the Saami languages are spoken in the North, and Swedish in Southern and Western Finland (Wikipedia 2025). Finnish is the majority language in the whole country except in Åland (an autonomous province of Finland) and certain Swedish municipalities in the mainland.

INSERT FIG. 1 HERE

Figure 1. The municipalities where the Saami languages (north) and Swedish (west and south) are spoken (Wikipedia 2025)

This chapter will focus only on the Finnish language and the development of Finnish terminology and terminology planning. The organizations

¹ For more about the Saami languages, see chapter xx in this volume.

discussed have many activities, but here mainly only those relevant from the point of view of terminology planning are mentioned.

2. Early language planning

The early phase of conscious development started from the first printed texts in the 1500s, and the second phase extended from the mid 1800s to the early 1900s, during which period the language was subjected to a major grammatical and lexical development. Eventually it was granted an official status as equal to the Swedish language.

2.1 Status change: from spoken dialects to a national language

Finnish has been written since the 1500s, beginning at a time when Finland was a province of the kingdom of Sweden, with a total population of only about 350,000 (Saari 2012:181). Swedish was the administrative language, while the majority of the common people spoke Finnish dialects in their everyday lives (Maamies 2008:183-184).

The first texts in Finnish were religious texts translated from Latin, Greek, German and Swedish, and legal texts translated from Swedish. The purpose was to reach all Finnish speakers by using their own language. However, the Finnish language was divided into spoken dialects and did not have a standard syntax nor all the (abstract) words and terms needed to express the

religious and legal ideas and concepts (Kolehmainen 2014:53). Translators and authors borrowed them from other languages (often Swedish) and from different dialects (Saari 2012:184; Nuolijärvi 2018:225). They coined new lexical items or translation loans based on the dialects, whereby the lexical elements often received a new, more abstract meaning (e.g. *käsittää* ‘to understand’ from *käsi* ‘hand’) (Hakulinen 1979:425–440,482–483). The oldest printed book in Finnish is the ABC book including Martin Luther’s *Smaller Catechism*, published in 1543 by bishop Mikael Agricola (1510–1557) (Saari 2012:82). The language in Agricola’s many works can be considered as the first norm for the Finnish written language (Kolehmainen 2014:15). In his works, he used altogether about 6,000 different words, of which hundreds are his coinages (ibid.: 53), e.g. *armo* ‘mercy’, *hengellinen* ‘spiritual’, *rikos* ‘crime’, *petos* ‘fraud’, *rangaistus* ‘punishment’, *velkakirja* ‘IOU’ (Hakulinen 1979:430), which still appear both in the general language and as terms in the language of the church and law.

The linguistic situation changed when Sweden lost Finland to Russia in a war in 1809, and Finland was made an autonomous grand duchy. Swedish was still kept as the language of the authorities, but it was suggested that Finnish should get a more prominent status. Many considered this an impossible task, because Finnish still had a very thin literary tradition and many key concepts lacked Finnish designations (Maamies 2008:24,183–184; Kolehmainen 2014:57). At that time in the 1800s, the influences of the European National Romantic movement also reached Finland, and educated

people began to develop the Finnish language in earnest. It is noteworthy that Swedish-speaking intellectuals were pioneers and many of them changed their surnames to Finnish, and many even changed their home language (Saari 2012:190–191). Finnish-language higher education was also being developed (Nuolijärvi 2018:226).

Both the vocabulary and the linguistic structures were subjected to deliberate development, which all happened in about fifty years, from 1820 to 1870, which Maamies (2008:184) describes as a huge effort from today's perspective.

Language was seen as important for Finnish culture and the existence of a nation and state. The effects of National Romanticism were visible as linguistic control and purist attitudes that stretched all the way to the mid-1900s (Kolehmainen 2014:23). The Language Manifesto of 1863 started a process that led to the establishment of the official status of Finnish in 1902, after which Finnish and Swedish were equal in official contexts. The Constitution Act of 1919, after Finland became independent 1917, further sealed the status of Finnish and Swedish as the national languages of the country (Häkkinen 1994:54–55).

2.2 Vocabulary development by individual word-smiths

The systematic development of the Finnish vocabulary began in the first half of the 1800s. There was still a great need for both general vocabulary

and terminology for specialized fields. Most of the terms had to be created practically from scratch (Häkkinen 1994:128). New terms often appeared first in popularized texts intended to educate people, but were later adopted also in specialized languages, when domain specialists and higher education eventually started to use Finnish.

Educated people participated in the development of the Finnish vocabulary, and making proposals for the development of spelling, grammar and especially vocabulary (including terminology) became almost a hobby for many researchers, journalists, teachers, etc., who were often laymen in the field and/or linguistics (Laitinen, and Nuolijärvi 2009:25; Nuolijärvi 2018:226). These people coining Finnish neologisms are often referred to as *sanaseppo* or *sanaseppä* ‘wordsmith’ – or *termiseppä* ‘term-smith’ – as Haarala (1989:260) calls them. A very productive and well-respected “term-smith” from this period was physician Elias Lönnrot (1802–1884), who created Finnish terms for e.g. botany, medicine, law and mathematics (Haarala 1989:260; Kolehmainen 2014:60; Lehtikainen, and Kiuru 1989:66; Pitkänen 2008). A lot of his terms are still in use in both standard language and special languages, e.g. *kuume* ‘fever’, *ongelma* ‘problem’, *monikko* ‘pluralis’, *syyttäjä* ‘prosecutor’, *siitepöly* ‘pollen’ (Haarala 1989:260; Hakulinen 1979:452). It is notable that also various other basic words and terms can be traced back to their originators.

2.3 Terminology development by professional and scientific societies

The next phase began at the end of the 1800s, when various Finnish-speaking professional and scientific societies and associations were founded, for example *Suomalainen Lääkäriseura Duodecim* [Medical Society of Finland Duodecim] (1881), *Suomen Biologian Seura Vanamo ry* [Biological Society of Finland Vanamo] (1896), *Suomalainen Lakimiesyhdistys ry* [Finnish Lawyers' Association] (1898), and *Suomenkielisten Teknikkojen Seura* [Society of Finnish Speaking Engineers] (1896).

The desire to develop the language of their domain was at the top of their agenda. They all supported the creation of Finnish terminology and initiated glossary and dictionary projects. For example, at the founding meeting of the Duodecim Society on 18.11.1881, the convener stated that pro-Finnish medical practitioners had been invited to discuss the elimination of language-related defects because in no science is Finnish terminology so deficient as in medicine. Not to mention that the lack of terminology in Finnish medicine is a considerable disadvantage for the doctor, who is prevented from communicating in speech with the sick person as freely as his interests would require (Duodecim n.d.; transl. AN).

The Biological Society, too, included in its purpose the promotion of the use of Finnish in the natural sciences, especially in botany and zoology. The aim was to compile the vocabulary of the field and form new terms. The largest project was collecting the names of Finnish plants and animals (Suomen Biologinen Seura Vanamo 2017). A great achievement of the Society of

Finnish Speaking Engineers was the dictionary *Technical Vocabulary (German-Finnish-Swedish)*, which was remade in 1941, based on the German *Technologisches Wörterbuch* compiled by Alfred Schlomann. The principles for Finnish term formation and the spelling recommendations established for it – such as designating meanings for affixes when coining terms by derivation – have been of great importance for the Finnish terminology work even later on. Inside the Society, in addition, there were clubs for various fields of engineering, which were interested in developing the terminology of their domains (Ranta 1989:15–19).

2.4 The first language planning organizations

The pioneer of language planning was *Suomalaisen Kirjallisuuden Seura* [Finnish Literature Society] (1831–), which was the first linguistic society in Finland and, for a long time, the only institution that felt that its goal and duty was to cherish and develop the Finnish language. Its publications ranged from fiction and folk poetry to scientific studies, textbooks and dictionaries (Häkkinen 1994:29). In the year 1945 it started *Suomalaisen Kirjallisuuden Seuran Kielitoimisto* [Language Office of the Finnish Literature Society], which marked the beginning of an organized language service and counselling for the general public. It cooperated closely with the editorial staff of the *Nykysuomen sanakirja* [Dictionary of Modern Finnish] and had access to a collection of more than 4 million word cards. From

1949, the Office continued its operations with state support as a part of the new *Suomen Akatemia* [Academy of Finland] (Korhonen, and Piehl 2020). Another pioneer was *Kotikielen Seura* [Society for the Study of Finnish] (1876) founded by a group of students from the University of Helsinki to promote the research and use of Finnish (Lappalainen, and Siirainen 1999:556). Paunonen (1976:413) states that during its first ten years, the Society unknowingly succeeded in laying "a foundation on which Finnish language research could build many of its most enduring achievements over the next hundred years." This includes also the principles of word formation, with which the principles of term formation are still consistent. The following principles were presented by A.A. Borenius in 1878:

1. When coining words, the rules of language must be followed.
2. The meaning must be clear.
3. Both compounding and derivation must be used, and not just one of them.
4. Above all, the language's own resources must be exploited and preserved (Paunonen 1976:357; transl. AN).

The Society participated significantly in the compilation of terminologies in various fields (e.g. medicine, railways, business, gardening) (Paunonen 1976:360–361). The greatest achievement in the field of neologisms was a 160-page glossary of household terminology (1896) with valid equivalents to replace 4000 words of the *kyökkisuomi* 'kitchen Finnish' (Paunonen 1976:358), i.e. the "everyday Finnish using Swedish words adapted to the

Finnish pronunciation, especially household words" (Kielitoimiston sanakirja 2024b; transl. AN), e.g. the terms *jäätelö* 'ice-cream', *laskostaa* 'to fold', which are still in use. During the 20th century, the Society continued to create and establish new words, which were discussed at meetings and in the Society's journal *Virittäjä* (1887–). The journal is Finland's oldest still existing linguistic quarterly journal (Paunonen 1976:359).

3. Language and terminology planning today

In the 1970s, after lengthy preparatory work, two separate organizations were established. *Kotimaisten kielten tutkimuskeskus* [Research Institute for the Languages of Finland] – today *Kotimaisten kielten keskus* [Institute for the Languages of Finland] (3.1) – was a continuation of the Language Office of the Finnish Literature Society and the later Language Office of the Academy (see 2.4). It was formed in 1976 as a governmental language organization by merging various units and departments. A terminological expert organization, *Tekniikan Sanastokeskus ry*, *TSK* [Finnish Centre for Technical Terminology], today *Sanastokeskus ry* [Finnish Terminology Centre] (3.2), was founded in 1974 as an association with companies and other organizations as members. In addition, there are various other organizations and associations that are taking care of the terminology in

their own domain, as well as infrastructure projects supporting terminology work. Examples of these are given in 3.3.

3.1 Institute for the Languages of Finland

Kotimaisten kielten keskus [Institute for the Languages of Finland] is Finland's leading language planning authority. It falls under the Ministry of Education and Culture, with its activities laid down by law (1403/2011). It has 70 experts. The institute has departments for both Finnish and Swedish language planning, as well as one for dictionaries (general language, dialects, etymology). It also coordinates the activities of the Language Boards of Saami, Romani, and Sign Language, and promotes the use of these languages in society (*Kotimaisten kielten keskus* 2024).

The Institute develops the Finnish and Finland Swedish² standard languages including name planning, counselling and dictionary work. The Institute compiles and updates an online dictionary of standard Finnish (*Kielitoimiston sanakirja* ‘Dictionary of the Language Office’), which contains over 100,000 entries with meaning, usage, register, style, inflection, and spelling of the words (*Kielitoimiston sanakirja* 2024b). New words

² Finland Swedish is a regional variant of Swedish with approximately 296,000 speakers. The written and standard Swedish in Finland and Sweden do not differ much from each other except for some words, expressions and country-specific terminology; more differences can be found in spoken language and dialects. One of the goals of language planning in Finland is to prevent the Finland Swedish to distance itself from the Sweden Swedish (*Kotimaisten kielten keskus* 2024).

entering the Finnish language are recorded, and the more permanent ones are included in the Dictionary (Kotimaisten kielten keskus n.d.).

In 1982, the Government appointed the Institute as the language expert to develop the language of authorities and to give guidance in its use. The decision was one of the first ones worldwide. The Institute produced a guide and started to organize courses for the authorities (Korhonen, and Piehl 2020). These activities are still going on, and the Institute's website provides guidelines in Finnish, e.g. on good official language, writing clear and understandable texts, and improving the linguistic accessibility of online services, as well as principles of terminology, characteristics of good terms, and guidance for designing vocabulary. They provide information also on gender-neutral job titles. The Institute's experts participate in plain language projects and in terminology work in various fields. In particular, they are interested in plain legal language, the language in social and health services and "EU Finnish" (Kotimaisten kielten keskus 2024).

3.2 The Finnish Terminology Centre

The main terminology planning organization in Finland is *Sanastokeskus ry*. [Finnish Terminology Centre]. It is an independent, non-profit expert organization specializing in terminology with the aim to produce terminologies and ontologies in Finnish and Swedish. It provides information on methods for terminology and ontology work as well as

terminological expert services for different target groups (Sanastokeskus 2024). The Terminology Centre was founded in 1974 by technical societies with the help of the *Suomen Standardit* [SFS Finnish Standards] organization, to create Finnish and Swedish vocabularies in the fields of technology (Ranta 1989:20–21). Today their terminological services are not restricted only to the technological fields.

In 1978, Heidi Suonuuti, M.Sc. (Eng.), became its director and a leading figure in terminology work. She realized that compiling terminologies required its own *methodology*, and became acquainted with Eugen Wüster's ideas on concept systems and systematic definitions. Her legacy can still be seen today, and she can be said to have established the profession of terminologist in Finland (Nykänen 1999:7). The practical experience and research interest in concept-oriented terminology (e.g. Nuopponen 2018) of the author of this chapter originates to a great degree from the year spent as a terminologist at the Centre in the eighties. At an early stage, the Centre began to organize courses on terminological working methods, opened a terminology helpline, compiled a reference library of special field glossaries, and started publishing its own newsletter *Terminfo* (Nykänen 1999:7).

The Centre was involved in international cooperation early on; for instance, Suonuuti chaired the ISO/TC37 Terminology Committee from 1991 to 1997. Some of the features in the terminology standards can be traced back to the Terminology Centre and the Nordic teamwork from that period. The

Centre continues to participate actively in the ISO/TC 37 Committee *Language and Terminology* through the national standardization group for language and terminology work of the SFS Finnish Standards. Over the years the Centre has tested the methods in practice, which has proved valuable in developing and standardizing the methodology (Nykänen 1999:9; Sanastokeskus 2024). In 1988, the terminological expertise of the Terminology Centre was compiled into a handbook of terminology work in Finnish in a joint publication with the SFS Finnish Standards (*Sanastotyön käsikirja* 1988). Another publication, a more concise *Terminology Guide* prepared by Suonuuti (1997/2001), has been widely used around the world and translated into several languages. Today, the Centre's website is a go-to place for those seeking information on terminology work (more on the methods in section 4.)

Over the years, the Centre has developed its expertise to cover not only technical but also any other special fields. Concept analysis continues to play a key role in its work, and now, in addition to traditional terminology projects, the Centre has participated, for instance, in the National Semantic Web Ontology project (FinnONTO), and Finto service of the National Library as well as in several other ontology and classification projects (Seppälä, and Suhonen 2024).

Today, instead of in traditional glossaries or term banks, their projects may result in terminologies, ontologies or classifications that support, for example, semantic interoperability of information systems, developing

digital services, clarifying communications and, more generally, improving the efficiency of client or partner organizations (Seppälä, and Suhonen 2024).

The Centre has a term bank (TEPA, 1984-), which has been available free of charge on the Centre's website since 1997. Currently it contains over 300,000 term entries, which come from their own publications, but also include entries with Finnish terms imported from glossaries, dictionaries and terminology databases compiled by others (e.g. IATE, Electropedia, and the Helsinki Term Bank for Arts and Sciences), with links to the original repositories. It contains terms in fourteen languages, mostly in Finnish, Swedish, English and German. The Centre uses concept diagrams to visualize concept relations and systems both in its glossaries and term entries in TEPA (Tepa Term Bank n.d.).

Most of the funding for the Terminology Centre comes from commissioned projects. In addition, its operations are funded by membership fees and a grant that it applies for annually from the Ministry of Education and Culture to maintain terminology services of general interest, such as the TEPA term bank. In the beginning of year 2025 the Centre had around nine employees.

The Centre *cooperates* with other organizations focusing on terminology, such as the Institute for the Languages of Finland, standardization bodies (SFS, ISO), and EU institutions (Eurodicautom, IATE) (Sanastokeskus n.d.).

From the very beginning, the leading terminology centres or groups in the other Nordic countries have been important partners, especially the Swedish

TNC, and in 1976 the Nordic terminology groups together established the co-operation body Nordterm (Nordterm 2012). The Centre has also had some project and training cooperation with universities, e.g. Eastern Finland, Helsinki, Vaasa, and Turku, which are, or have been, teaching courses and doing research in Terminology.

The Centre has also managed two longtime terminology groups, the IT Technology (1999–) with the purpose to define concepts and provide Finnish term recommendations for English terms, and the Banking and Finance Vocabulary (2001–2024) giving recommendations for Swedish and Finnish terms, definitions, and English equivalents. They consist of field experts, language planners, terminologists and translators (Sanastokeskus 2024). The IT group has its own term bank on the Centre's website.

3.3 Other organizations, projects and terminological infrastructure

Also, other organizations have permanent or temporary units or working groups that take care of the terminology in their field. In addition to government agencies (e.g. the Prime Minister's Office, the Finnish Institute for Health and Welfare), some associations or societies have terminology groups, similar to the early days (e.g. *Duodecim*, *Vanamo*), or carry out terminology work in project form. There are online infrastructure efforts to support and publish terminology work. Some examples of these are given in the following.

The language experts of *Valtioneuvoston kanslia* [Prime Minister's Office] carry out the Government's terminology work. Their aim is to promote clear communication, facilitate cooperation between administrative branches, and harmonize the terms used in government texts in Finnish and Swedish as well as in some other languages (e.g. English, French, German). In cooperation with experts from various administrative branches, the Office compiles glossaries for various fields, such as the budget, parliament, climate and energy, administration, higher education, NATO, and taxation. The glossaries are also used e.g. to standardize the terminology used in various information systems. They are published as separate online publications and/or in the Government term bank *Valter*, which is available freely online. The language experts also compile online glossaries for topical issues for translators, compile translation memories, and participate in terminology projects initiated by other actors, as well as give free advice on government terminology (Prime Minister's Office Translation and Language Services n.d.).

Tieteen termipankki [The Helsinki Term Bank for the Arts and Sciences] (HTB) is a constantly developing online service created in 2012 as an infrastructure project. At the moment it is funded by the Academy of Finland and the University of Helsinki. The purpose is to encourage researcher groups and individual researchers from any discipline to do terminology work and add their terminology to the HTB term bank to make it available to everybody. In addition to discipline-specific concepts, the

term bank enables linking terms over discipline borders and discussing the concepts behind them (e.g. the term *diskurssi* ‘discourse’) in multidisciplinary groups (Kettunen 2024:448–449). The terminology work is carried out in self-organizing expert groups, whose members have access to the wiki-editing tools and all the entries in their own specialty. The groups have different types of approaches to the coordination. The term bank organizes events to increase terminological awareness among scholars and provides information on courses and self-study material on terminology work and its significance for scholarly work. There are currently about 60 disciplines (archaeology, biology, environmental sciences, geology, linguistics, meteorology, micro biology, philosophy, terminology science, amongst others), over 45,000 concept pages, and about 300,000 terms including Finnish terms and their equivalents (Kettunen 2024:448; Tieteen termipankki 2024). The data may include terms, synonyms, definition(s), place of the concept in a concept system, concept diagrams, morphological structure of the term, pictures, contexts, equivalents and comments about them, additional information on the concept, discussion, etc. (Tieteen termipankki 2024).

Several professional and scholarly associations and societies are doing terminology work in their field. Also, some of those founded in the 18th century (2.3) continue their terminology work even today. Many scholarly groups have adopted the Helsinki Term Bank for the Arts and Sciences as their working and publishing platform (e.g. Vanamo), while Duodecim, for

example, has its own publishing house and an online *Medical Terms* dictionary service as a paid service (Terveysportti 2024).

Another infrastructure project that facilitates terminology work on various fields is Sanastot.suomi.fi, an interoperability platform maintained by *Digi-ja väestövirasto* [Digital and Population Data Services Agency] of the Government. It provides free tools for publishing terminology work, code sets, and data models needed for data flows and information management for public and private sectors. Many terminology projects by government agencies use it for their glossaries, e.g. *Business document terminology* by the Tax Administration. It can also be used to ask for and receive feedback. Different actors are encouraged to use the information that others have made available on the platform when developing their own systems to make it cost-effective and to improve interoperability of the systems. An important target is also to promote consistent use of concepts and terms to make it easier to plan and understand services (Suomi.fi n.d.).

4. Terminological working methods

In the following, general features of popular terminological methods utilized in terminology work in Finland today are first discussed. After that a closer look is taken at the term formation methods in the Finnish language, especially at the treatment of terms borrowed from other languages and at some thoughts on attitudes towards the omnipresent English.

4.1 Characteristics of the terminological working methods

The systematic terminological methods adopted and further developed by the Finnish Centre for Terminology since the 1970s are taken here as a model for Finnish terminology work, because they have been used by various projects and working groups doing terminology work – also beyond the Centre’s own projects over the years. The main features of their principles are that terminology work is done in projects by a group consisting of specialists of the target field and a terminology expert, and that the projects have a restricted special field to cover, clear objectives, a specific timetable and pre-agreed resources. The work is concept-oriented and utilizes concept diagrams throughout the project as tools to clarify relations between concepts, to define concepts and to critically examine the term choices. Concept systems are used to visualize the structure of the field and to order concept entries in glossaries or to link them in a term bank. The Terminology Centre developed its own marking system for the relations, which was later also used in international standards (Nykänen 1999:8) and in *The Guide to Terminology* (Suonuuti 1997/2001). Seppälä, and Suhonen (2024) also point out that the systematic structure of terminological glossaries enables the long-term development and maintenance of terms and concepts. The changes can be made to several interrelated concepts in a controlled manner. This has been proved by the extensive changes that were

needed, for example, in a glossary of information management in the social sector (Seppälä, and Suhonen 2024).

On the basis of its long experience, the Terminology Centre sees that the features listed above provide a strong foundation for terminology work and guarantee the quality of the work. The Centre offers courses and consultation for the projects and online material for professionals starting terminology work. In addition, a concise description of the terminological methods used is included in the foreword of their glossaries, which makes it easier for other projects to adapt them.

4.2 Term formation and loanwords

New terms enter the language through many different channels, developed by researchers, businesses, public authorities, journalists, translators and many others who need a way of expressing the concepts in their field. Not all terms necessarily have an ‘official’ way into the vocabulary of the field in question (cf. Hiidenmaa 2003: 275). In Finland, terminology planning and the creation of new terms usually take place in the special fields themselves. The language and terminology planning organizations, on the other hand, are specialist organizations providing guidance, training and project services. Their recommendations are in harmony with the ISO principles (ISO 704:2022). Some features seem to be particularly

characteristic of Finnish term formation and can be traced back to the early term-smiths and language planners.

First of all, there is still a strong tradition to create new words in Finnish society (Nuolijärvi 2018:226–227). From the beginning, Finnish-based vocabulary has been regarded as an ideal, which is not just the language planners' view, but also that of the language community (Maamies 2008:185–186). It goes back to the conscious development of the language from the 16th to the 19th century, and is still more or less visible, e.g. in technology and medicine, as well as in many other special fields. For instance, the IT terminology group led by the Terminology Centre recommends that terms in one's own language are to be preferred if other criteria allow it. This means, for instance, that they should be transparent and refer to the concept system, be clearly distinguished from other terms, and not become too long or otherwise difficult to use. In the IT field, however, it can be useful if a term is aligned with terms in other languages, especially in English. This can be realized in many other ways than by direct borrowing (Tietotekniikan termitalkoot n.d.).

A principle that is often repeated in the texts of both the early term-smiths and today's terminology planners is to take the laypeople into account when forming and choosing terms – not forgetting, of course, the communication needs of professionals. For instance, the Terminology Centre emphasizes that not only experts need terms and knowledge of specialist concepts in their daily lives. For example, various technical devices and the

digitalization of services introduce new concepts and terms (Sanastokeskus 2020).

For the IT group, one solution is to use a different term for the concept in different contexts. Unnecessary synonyms should be, however, avoided, which is why some alternatives are marked as not recommended (Sanastokeskus 2020). This type of twin terms is typical for the early terminology from the 1800s, e.g. *kielitiede* – *lingvistiikka* ‘linguistics’, *oikeustiede* – *juridiikka* ‘jurisprudence’ (Häkkinen 1994:511), *syntaksi* – *lauserakenne* ‘syntax’. These synonymous terms live side by side even in the special language, but in other cases one may disappear after a while. A more recent synonymous term pair refers to terminology work:

terminologiatyö – *sanastotyö* ‘vocabulary work’, where the first one is in harmony with the international terms, consisting of a loanword and a translation (*työ* ‘work’). The second one, used more frequently, consists of two Finnish words, where *sanasto* is a derivative term from *sana* ‘word’ combined with *-sto* ‘collection’.

Although Finnish language planning has a long tradition of puristic views on foreign loanwords, Maamies (2008:185) characterizes these attitudes as rational. Borrowing a word can be advantageous; it enriches the language and may be better suited for certain special fields, since it links the word to other languages and makes it “more comprehensible in its own field”.

Something that is, however, very relevant for loanwords from other languages into Finnish is spelling, pronunciation and inflection, which often

make it difficult to adapt, e.g., an English term. In Finnish, there is almost a perfect correspondence between spelling and pronunciation (Sajavaara 1989:73–74). Especially the old (Swedish) loanwords have undergone many transformations when they were adapted to suit Finnish speakers, e.g. *laki* < *lag* ‘law’; *tuomari* < *domare* ‘judge’. They are so well rooted in Finnish that their origin may not come to mind.

When the Finnish language was still being developed, Swedish, i.e. the longtime official language, was seen as a threat, and attempts were made to reduce its influence by coining and translating Finnish words and terms. English has taken that role now. A challenge today is that English is often used as working language in internationally operating companies as well as for higher education in some fields. Because people have better education and language skills today, it is easier for English words and terms to enter daily language use. In recent research, English has been seen as a threat, but Laitinen et al. (2023:123), who investigated the extent to which it is used in Finland, say that there are currently only few signs of the marginalization of the national languages in Finnish society. Finnish and Swedish are used to operate the judiciary and all other central institutions and functions of society, to conduct almost all social debate, and to publish news. In addition, fiction and art flourish in both Finnish and Swedish, which are the main languages of education from pre-primary and basic education (Laitinen et al. 2023:123), as well as the primary languages of the higher education. However, English programmes and courses have recently increased in

higher education, making it no longer possible to study in the national languages across all fields, which is pointed out by Onikki-Rantajääskö (2024:103). This means that the linguistic rights of students are not fully realized. In answer to some complaints, the Chancellor of Justice and the Parliamentary Ombudsman have interpreted the University Act in such a way that any other language, i.e. English, should not completely replace the national languages – so far without any visible effects (Saarikivi, and Koskinen 2024:103,110). Both Onikki-Rantajääskö (2024:131) and Saarikivi and Koskinen (2023) want to solve the situation by promoting multilingualism instead of adding monolingual English courses and programmes, and by increasing courses in Finnish language for the international students. It goes without saying that terminology work and easy access to the resources are key elements in this. The activities of the Helsinki Term Bank for the Arts and Sciences play a very important role in the education system, and it is widely used by researchers, students and anybody else looking for terms and definitions. More than a thousand scholars contribute to the content of the Term Bank in their respective fields, but not all disciplines are represented yet, which Kettunen sees as future challenge (Kettunen 2024:449–450). Kettunen (2024:449) from the Term Bank says that although English dominates in the academic world, the national languages are needed, and that “for the scientific knowledge to have an impact on society, university graduates must be able to communicate in Finnish.” In the study by Laitinen et al. (2023:96, 127) the

overwhelming majority of the university respondents believed that there is enough terminology in their fields in Finnish and Swedish, and agreed that research must be written and popularized also in these languages.

5. Conclusion

Finnish terminology planning has gone through several phases with different goals and methods. It has been an important element in all stages of conscious language development. In the beginning, it was considered important that people understood the religious message and, on the secular side, the orders and measures of the authorities directed at them. At this stage, translators and authors created a lot of vocabulary for these fields, which had to be understandable to ordinary people, i.e. the vocabulary should be based on dialects. The standard language was created centuries later, when the idea was born that Finnish would be developed into a national language alongside Swedish. It required a great deal of effort to create norms for the language and vocabulary for all fields of society. It was considered important that the level of education of the entire nation was raised by making knowledge of various scientific and special fields available to people. This was done, for example, by developing higher education and emphasizing the importance of Finnish-language teaching and publishing, which of course promoted the development of terminology in different fields. After these turning points, the development of various

fields continued, which, especially in the case of technology, brought with it a huge number of new concepts, for which terms were found and glossaries and dictionaries by various actors were compiled.

Terminology work in its modern form began in the 1970s, when the Terminology Centre was created. At this stage, the goal of the terminology work and the resulting glossaries was to develop and enhance communication within the fields. Today, terminological projects are also used to improve the efficiency of organizations, and, for example, to support the drafting of legislation (Seppälä and Suhonen 2024). Furthermore, they are used when developing ontologies, digital services and information systems, which adds yet another goal to terminology work: laying the foundation for the mutual compatibility of different systems, as well as for the accessibility of their user interfaces in both national languages. In this context terminology work is sometimes called *käsitetyö* ‘concept work’, which reflects the new openings for the terminologists as well as for the terminological methods in the fields such as ontology, classification, interoperability, information system development etc., where it is crucial to develop unified concept systems, definitions and designations. Seppälä and Suhonen (2024) also see that “publishing glossaries for the widest possible use, promotes the uniform use of concepts and terms and the identification of concepts common to different fields.” They express their hope that in the future, further development of terminology work between different sectors and actors can be achieved.

Despite the fact that the need for terminology work is widely recognized, Maamies (2008:189) from the Institute of the Languages in Finland says that people often question the use of Finnish in science, research, technology and business, because English is so widely used. However, she continues to say that accepting the view “that there is no need to discuss these topics in our language” would take us back to the times when “Finnish was used merely at home and in free-time activities and was not considered suitable for describing abstract themes” and there would be “a danger of our language losing ground again as regards its scope of usage” (Maamies 2008:189). Nuolijärvi (2018:232), a former long-time director of the Institute, emphasizes how important it is, also from the point of view of democracy – for both laymen and professionals –, to have terms and to get information in one’s own language. Furthermore, the linguistic threshold between these groups should not be too high either.

References

- Duodecim. n.d. *Seuran historia*. [*The history of the Society*]. Accessed 19.2.2025. <https://www.duodecim.fi/duodecim/seuran-historia/>.
- Haarala, Risto. 1989. "Sanat tiedon ja taidon palveluksessa. [Words at the service of knowledge and skill]." In *Nyky-suomen sanavarat*, by Jouko Vesikansa, 259–275. Porvoo: WSOY.
- Hakulinen, Lauri. 1979. *Suomen kielen rakenne ja kehitys*. [*The structure and development of the Finnish language*]. 4th edition. Helsinki: Otava.
- Hiidenmaa, Pirjo. 2003. *Suomen kieli : who cares? [Finnish Language : who cares?]* Helsinki: Otava.
- Häkkinen, Kaisa. 1994. *Agricolasta nykykieleen: Suomen kirjakielen historia*. [*From Agricola to modern language: The history of written Finnish*]. Porvoo, Helsinki, Juva: WSOY.
- ISO 704:2022. *Terminology work — Principles and methods*. Geneva: ISO.
- Kettunen, Harri. 2024. "Monitieteisyydestä tieteidenvälisyyteen: Joukkoistaminen Tieteen termipankin terminologiatyössä. [From multidisciplinary to interdisciplinarity: crowd sourcing in the terminology work of the Term Bank for Arts and Sciences]." *Sosiaalilääketieteellinen aikakauslehti* 61: 448–450.
- Kielipoliittinen ohjelma. Valtioneuvoston periaatepäätös*. [*Language Policy Programme. Government Resolution*.] 2022. Helsinki: Finnish Government. <https://urn.fi/URN:ISBN:978-952-383-645-7>.

Kielitoimiston sanakirja. 2024a. <https://www.kielitoimistonsanakirja.fi/>.

Kielitoimiston sanakirja. 2024b. *kyökkisuomi*.
<https://www.kielitoimistonsanakirja.fi/#/kyökkisuomi>.

Kolehmainen, Taru. 2014. *Kielenhuollon juurilla*. [At the roots of language maintenance]. Helsinki: SKS.

Korhonen, Riitta, and Aino Piehl. 2020. ”Tähdenvälejä ja kohokohtia Kielitoimiston vuosikymmeniltä. [Highlights from the decades of the Language Office].” *Kielikello* 2020:1. <https://kielikello.fi/tahdenvaleja-ja-kohokohtia-kielitoimiston-vuosikymmenilta/>

Kotikielen Seura. n.d. *Society for the Study of Finnish (Kotikielen Seura)*
<https://www.kotikielenseura.fi/in-english-society-for-the-study-of-finnish/>.
 Accessed 19.2.2025.

Kotimaisten kielten keskus. n.d. *Uudet sanat artikkeleiksi [The way for new words into entries]*. <https://kodus.fi/sanakirjat/kielitoimiston-sanakirja/yleiskielen-sanakirjan-toimittaminen/uudet-sanat-artikkeleiksi/>

Kotimaisten kielten keskus. 2024. <https://www.kodus.fi>.

Laitinen, Lea, and Pirkko Nuolijärvi. 2009. ”2. Suomen kielen julkisen käytön ja aseman kehitys. [Development of the public use and status of the Finnish language].” In *Suomen kielen tulevaisuus: kielipoliittinen toimintaohjelma*, by Auli Hakulinen, Jyrki Kalliokoski, Salli Kankaanpää, Antti Kanner, Kimmo Koskeniemi, Lea Laitinen, Sari Maamies, and Pirkko Nuolijärvi, 15–44. Helsinki: Kotimaisten kielten tutkimuskeskus.

Laitinen, Mikko, Sirpa Leppänen, Paula Rautioaho, and Sara Backman. 2023. *Englanti Suomen kansalliskielten rinnalla. Kohti joustavaa monikielisyyttä [English Alongside Finnish National Languages. Towards Flexible Multilingualism]*. Helsinki: Valtioneuvoston kanslia.

Language Act (423/2003). Unofficial translation. Ministry of Justice, Finland. <https://finlex.fi/en/laki/kaannokset/2003/en20030423.pdf>.

Lappalainen, Hanna, and Mari Siirainen. 1999. "Kotikielen Seuran toimintaa sata vuotta sitten. [The activities of Kotikielen Seura 100 years ago]." *Virittäjä*, 103(4). 556–571.

<https://journal.fi/virittaja/article/view/39207>.

Lehikoinen, Laila, and Silva Kiuru. 1989. *Kirjasuomen kehitys. [The Development of the Finnish literary language]*. Helsinki: Helsingin yliopiston suomen kielen laitos.

Maamies, Sari. 2008. "Vocabulary development in Finland." In *Euskalgintza xxi. Mendeari buruz. Euskaltzaindiaren nazioarteko XV*, 183–192.

<http://euskaltzaindia.net/dok/ikerbilduma/70477.pdf>.

Nordterm. 2012. *Background*.

<http://www.nordterm.net/wiki/en/index.php/Background>.

Nuolijärvi, Pirkko. 2018. "10. Finnish for special purposes: terminology work in Finland." In *Languages for Special Purposes: An International Handbook*, by John Humbley, Gerhard Budin, and Christer Laurén, 225–233. Berlin: De Gruyter Mouton.

- Nuopponen, Anita. 2018. "Terminological Concept Systems." In *Languages for Special Purposes: An International Handbook*, by John Humbley, Gerhard Budin, and Christer Laurén, 453–468. Berlin: De Gruyter Mouton.
- Nykänen, Olli. 1999. "TSK – 25 vuotta sanastotyön asiantuntemusta. [TSK – 25 years of expertise in terminology work]." In *Toimikunnista termitalkoisiin – 25 vuotta sanastotyön asiantuntemusta*, by Kaisa Kuhmonen, 6–15. Helsinki: Tekniikan Sanastokeskus.
- Onikki-Rantajääskö, Tiina. 2024. *Suomi osallisuuden kielenä. Selvitys suomen kielen tilasta Suomessa 2020-luvun puolimaissa. [Finnish as the Language of Inclusion Report on the State of the Finnish Language in Finland in the mid-2020s]*. Helsinki: Ministry of Justice.
<https://urn.fi/URN:ISBN:978-952-400-141-0>.
- Paunonen, Heikki. 1976. "Kotikielen Seura 1876–1976." In *Virittäjä* 80 (3–4): 310–432.
- Pitkänen, Kaarina (2008). *Suomi kasvitieteen kieleksi. Elias Lönnrot termistön kehittäjänä. [The development of botanical Finnish: Elias Lönnrot as the creator of new terminology]*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Prime Minister's Office, Translation and Language Services. n.d. *Glossaries and guidance*. Accessed 19.2.2025. <https://valtioneuvosto.fi/en/translation-and-language-services/glossaries>.
- Ranta, Osmo. 1989. *Tekniikka suomeksi. [Technology in Finnish]*. Helsinki: Tekniikan Sanastokeskus.

Saari, Mirja. 2012. "The development of Finnish into a national language."

In *Standard Languages and Multilingualism in European History*, by Matthias Hüning, Ulrike Vogl, and Olivier Moliner, 179–204. Amsterdam: John Benjamins.

Saarikivi, Janne, and Jani Koskinen. 2023. *Monikielistä sivistystä vai englanninkielisiä ratkaisuja? Selvitys yliopistojen kielivalinnoista [Multi-Language Education and Culture or Solutions in the English Language? Report on Language Choices at Universities]*. Helsinki: Ministry of Education and Culture. <https://urn.fi/URN:ISBN:978-952-263-741-3>

Sajavaara, Paula. 1989. "Vierassanat. [Foreign words]." In *Nykysuomen sanavarat*, by Jouko Vesikansa, 64–109. Porvoo: WSOY.

Sanastokeskus. n.d. Accessed 19.2.2025. <https://sanastokeskus.fi/>

Sanastokeskus. 2020. *Käsitä käsitteet, tartu termiin – perehdytys sanastotyön perusteisiin. [Understand the concepts, grasp the term – Introduction to the basics of terminology work.]*

https://sanastokeskus.fi/tiedostot/kurssit/perehdytys_sanastotyohon.pdf.

Sanastotyön käsikirja – soveltavan terminologian periaatteet ja työmenetelmät [Handbook of terminology work – principles and methods of applied terminology science]. 1988. Helsinki: Suomen Standardisoimisliitto.

Seppälä, Katri, and Mari Suhonen. 2024. "Sanastokeskus 50 vuotta erikoiskielten kehittäjänä. [Terminology Centre 50 years as a developer of special languages]." In *Kielikello* 31.10.2024.

<https://kielikello.fi/sanastokeskus-50-vuotta-erikoiskielten-kehittajana/>.

Suomen Biologinen Seura Vanamo. 2017. *Historia*. [History]

<https://www.vanamo.fi/toiminta/historia>.

Suomi.fi. n.d. *Terminologies*. Accessed 19.2.2025.

<https://sanastot.suomi.fi/en>.

Suonuuti, Heidi. 1997/2001. *Guide to Terminology*. Nordterm.

TEPA Term Bank. n.d. <https://termipankki.fi/tepa/en/>.

Terveysportti. 2024. *Duodecimin sanakirjat*. [Dictionaries of Duodecim.]

<https://www.terveysportti.fi/apps/sanakirjat/>.

Tieteen termipankki. 2024.

<https://tieteentermipankki.fi/wiki/Termipankki:Hanke>

Tietotekniikan termitalkoot. n.d. *Millä perusteella termisuosituksia*

annetaan? [On what basis are the term recommendations given?] Accessed

19.2.2025.

https://sanastokeskus.fi/tsk/fi/termitalkoot/mill%C3%A4_perusteella_termis

[uosituksia_annetaan-443.html](https://sanastokeskus.fi/tsk/fi/termitalkoot/mill%C3%A4_perusteella_termis_uosituksia_annetaan-443.html).

Wikipedia. 2025. *Languages of Finland*.

https://en.wikipedia.org/wiki/Languages_of_Finland.