Terminology and Lexicography Research and Practice aims to provide in-depth studies and background information pertaining to Lexicography and Terminology. General works will include philosophical, historical, theoretical, computational and cognitive approaches. Other works will focus on structures for purpose- and domain-specific compilation (LSP), dictionary design, and training. The series will include monographs, state-of-the-art volumes and course books in the English language.

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Volume 1

M. Teresa Cabré

Terminology
Theory, methods and applications
TERMINOLOGY
THEORY, METHODS
AND APPLICATIONS

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JOHN BENJAMINS PUBLISHING COMPANY
AMSTERDAM/PHILADELPHIA
To Antoni
And our children Toni, Albert, and Eva
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This book was first published in Catalan in 1992. I devoted three years to writing it after having being the head of the Catalan Centre of Terminology (TERMCAT). At that time, the theoretical understanding that I had assumed of terminology did not question the universality of the principles that had been established by the gtt, although in its applied side it introduced social elements. The latter are essential to account for the needs that terminology has when standardising the use of a minority language, such as Catalan, which is spoken within a technologically-developed society. A few years later, I realised that the theory that I had assumed until then and the practice I had developed were somehow contradictory and that these contradictions would not be overcome solely with a social-based terminology. The major contradictions had to do necessarily with the very understanding of the discipline, its delimitation, the description of its subject of study and its general aims. The universal validity of the premises established by the classical theory, which are indebted to the historical and scientific context when they were formulated, was thus questioned; but questioning them did not mean that their appropriateness for particular applications, subject areas and goals be denied. This book, however, does not cover the new formulation which was very vaguely insinuated in 1992 and has been progressively taking shape in the works I have published since then. Fortunately, several specialists from all over the world have agreed on this position, although we still cannot count on a totally integrated theory, which accounts for terms conceived as units that represent and transfer specialised knowledge and also for their integration into the specialists' competence and their use in different registers of specialised communication and different scientific and cultural contexts.

The English version of this book would not have been possible without the contribution made by several people who I would like to name explicitly.

I would like to thank J. C. Sager for the friendship he has shown me in his revision of the English version of the book but, above all, I want to thank him for everything I have learned from him. Without this knowledge, I would not have thought about terms in the same way.

I want to give special thanks to Janet DeCesaris, a colleague and a friend, for her generosity in undertaking the translation of the book into English, which undoubtedly has been a difficult and hard task.
And many thanks to Judit Feliu and Cristina Corcoll, iula colleagues, for having so efficiently contributed to the preparation of this manuscript.

Finally, I would not want to finish these acknowledgements without thanking Bertie Kaal for the interest she has put in the publication of this text. Without the generosity of all these people, it would have been extremely difficult for me to publish this book in English.

M. Teresa Cabré
Chapter 1

An overview of terminology

1. Social and political aspects

The initial motivation for the study of terminology was both spontaneous, like the motivation for technology, and theoretical, like the motivation behind the birth of science. During the simultaneous expansion of knowledge and the growth of technology and communications in the eighteenth century, terminology was seen as a necessary tool for overcoming some of the difficulties associated with these multiple developments. Only in the twentieth century has terminology acquired a scientific orientation while at the same time being recognised as a socially important activity. — Rey (1995)

Terminology, the discipline concerned with the study and compilation of specialized terms is not a new field of study, but only in recent decades has it been systematically developed, with full consideration of its principles, bases and methodology. Its social and political importance has now also been recognized on both the national and the international scale.

Terminology, as we understand it today, first began to take shape in the 1930s and has only recently moved from amateurism to a truly scientific approach.

1.1 Origins

Although the systematization of terminology and its scientific status are recent developments, activities in the field date from much earlier. In the 18th century research in chemistry by Lavoisier and Berthollet or in botany and zoology by Linné exemplify the interest that the naming of scientific concepts has always had for the real protagonists—the specialists. Due to the growing internationalization of science in the 19th century the need for scientists to have at their disposal a set of rules for formulating terms for their respective disciplines became apparent. Botanists (in 1867), zoologists (in 1889) and chemists (in 1892) expressed this need at their respective international meetings.

In the 18th and 19th centuries scientists were the leaders in terminology; in the 20th century engineers and technicians have become involved. The rapid progress
and development of technology required not only the naming of new concepts, but also agreement on the terms used. The Austrian E. Wüster (1898–1977), considered the founder of modern terminology and the main representative of what is known as the Vienna School,¹ came from the field of engineering, as did the Russian D. S. Lotte (1889–1950), founder of the Soviet School of Terminology.² The first international association of standardization, the International Electrotechnical Commission (IEC), was founded in Missouri in 1904.

During the first half of the 20th century neither linguists nor social scientists paid special attention to terminology; only from the 1950s onwards did they begin to show any interest and even then it was just in passing. It is curious that linguists have generally shown little interest in terminological studies; instead they have been concerned with developing a theory to account for the principles governing all possible human languages but have been less concerned with the multiple aspects of language seen as a tool for communication. Only within this latter approach is terminology afforded a place in linguistic analysis.

1.2 Development of the field

It is no coincidence that the development of both theoretical and applied terminology in the second third of the 20th century occurred thanks to the interest of scientists and technicians. Subject matter and methodology develop when there is a need, and are pursued to the extent that they are the result of clear social needs. If we analyze the organization of societies and their representative ideologies, we can establish the causes behind the appearance of organized, systematic terminology and explain the importance it has acquired in most advanced countries.

Analysts of contemporary society and culture believe that we are living in a transitional period and that our society is characterized by a series of changes that make it notably different from earlier periods. We are entering a new civilization that is marked by overwhelming technological control, to the point that we can even alter the most basic laws of nature—genetic engineering and biotechnology are good examples of this.

From the rural society of the first two-thirds of the 19th century, and the industrial culture of the last thirty years of the 19th century and the first half of the 20th century, we have leapt to the so-called post-industrial culture of the second half of the 20th century. This succession of civilizations, each with new cultural parameters, does not imply the elimination of those that existed previously; rather, the cultural forms of successive civilizations coexist for long periods of time, and only gradually do certain cultural modes displace others without eliminating them altogether. The change from rural to industrial society brought with it a change in civilization that became evident in new economic patterns, in different geographic
distribution of populations, and in different concepts of family, religion and work.

Rural society was characterized by people working the land. The population lived spread out in small settlements; the economy was based on subsistence; very few people went to school and most were illiterate. In addition, there was a hierarchical and authoritarian sense of intra-group relationships; organized religion was quite important. On the other hand, the highly developed societies of the industrialized world concentrate their populations into large cities, which usually contain major industrial complexes. Market economies base their development on fostering production and consumption, which favour the loss of the idea of the family as an economic and protective unit. The concentration of the population with the resulting appearance of class awareness and the general spread of education are factors that determine the democratization of interpersonal relationships and political regimes.

Ethnologists refer to this new civilization, derived but distinct from the previous one, as a post-industrial civilization. The loss of traditional ideologies has led to a society based on the search for material possessions and on increased individualism and competition, all in the glorification of power and success.

In this new stage there are two major areas in which cultural changes are obvious: the technologization of society, and the value attached to information. These two new cultural pillars have replaced other elements from earlier times which characterized industrial society. Some of these changes have had major effects on language and interpersonal communication and have created the need for new linguistic products, new professions related to language, and new ways of organizing communication.

In the industrial period, the spread of education and the growing importance of written communication (as opposed to the prevalence of oral communication in rural culture) made it necessary to codify languages and establish operative standard registers. As a result, hierarchical rules for good usage were established in many languages of culture, and the concept of a "standard language" was born. Thanks to this unification the dominant languages were consolidated.

At present, however, we are witnessing a paradoxical phenomenon in terms of the status of languages: on the one hand there is a trend towards monolingualism across cultures which is justified by the need for direct and efficient communication; on the other, national languages are being recognized as the natural tools of communication at all levels of usage, whether general or specialized. The need to assert cultural identity justifies the defensive attitude of non-dominant languages opposed to the cultural and linguistic colonialism of dominant languages. In this context, major efforts are being made to rationalize the diversification of languages by means of government-sponsored language planning projects. These projects should respect cultural identity and encourage international relations at the same time. A process of language standardization must respect the cultural and formal idiosyncrasies of
Each language, but at the same time allow a language community to become part of larger groups and not force it to shut itself off in sterile isolation.

Terminology is also affected by social changes which have had a major effect on linguistic needs:

a. The accelerated development of science and technology in recent times has been accompanied by the appearance of a large number of new concepts and even new conceptual fields which require new names.

b. Technology is growing rapidly and pervades all spheres of society. Technological developments in the fields of information and communication create the need for new ways of communication that did not previously exist; and the vocabularies of these languages require constant updating. This has brought about the appearance of new fields of activity, such as the so-called language industries.

c. Mass production is both the result of and the driving force behind the overriding importance of standardized products. The idea of “hand-crafted” is becoming outdated.

d. The transfer of knowledge and products, one of the most significant features of modern society, brings about, on the one hand, the appearance of new markets for scientific, technical, cultural and commercial exchange; on the other, the need to deal with the multilingualism of the new arenas for exchange. It also results in a need to standardize the elements that convey the exchange—the systems and basic units of transfer.

e. Information has become of the utmost importance and the amount of information has increased exponentially. This great mass of data requires powerful and effective support. Databases of all sorts are being created and require continuous updating. They must be easy to access and multidimensional. As a result, there arises a new need for information storage and retrieval, as well as for standardized systems for the automatic transfer of the contents of the increasingly sophisticated large stores of data.

f. The development of mass communication allows the widespread dissemination of terminology, with the resulting interaction between the general and specialized lexicons. Specific terms become part of popular culture through their use in the mass media.

g. Government intervention in language subjects terminology to standardization processes and makes it necessary to create official organizations to manage this work. The fact that scientific and technological creation occurs almost exclusively in the dominant economic powers means that there is a one-way transfer of knowledge and new products, entailing large-scale borrowings of technical and scientific vocabulary in other countries. To combat this situation language
policies, often protectionist ones, are implemented and thereby favour the emergence of new professions in these fields. Small countries, whether politically independent nations or not, with unstable languages also engage in language planning and require many language professionals. Special languages and their prime component, terminology, are one of the most important areas for language standardization.

1.3 The evolution of modern terminology

As stated earlier, modern terminology emerged in the 1930s with the work of E. Wüster in Vienna. In his doctoral dissertation, Wüster presented arguments for systematizing working methods in terminology, established a number of principles for working with terms and outlined the main points of a methodology for processing terminological data. As Rondeau (1983) notes, at this time Wüster was particularly concerned with methodology and standards as opposed to theory, since he considered terminology a tool that should be used as effectively as possible to eliminate ambiguity from scientific and technical communication. His interest in theory would come later. At the opening session of the Infoterm symposium in 1975, Wüster himself named four scholars as the intellectual fathers of terminological theory: A. Schloman from Germany, who was the first to consider the systematic nature of special terms; the Swiss linguist F. de Saussure, who was the first to draw attention to the systematic nature of language; E. Dresen, the Russian who was a pioneer in underscoring the importance of standardization and the principal force behind the Isa; and, J. E. Holmstrom, the English scholar who was instrumental in disseminating terminologies on an international scale from Unesco and who was the first to call for an international organization to deal with the issue.

Following Auger (1988) we identify four basic periods in the development of modern terminology:

a. the origins (1930–1960)
b. the structuring of the field (1960–1975)
c. the boom (1975–1985)
d. the expansion (1985–present)

The initial period of development of the study of terminology (1930–1960) was characterized by the design of methods for the systematic formation of terms. The first theoretical texts by Wüster and Lotte appeared at this time.

When he wrote the dictionary The Machine Tool, published in 1968, Wüster had the opportunity to check the rationale and suitability of the methods he had presented in his doctoral thesis.
In the second stage of development (1960–1975), the most important innovations in terminology came from the development of mainframe computers and documentation techniques. At this time the first databanks appeared, and the international coordination of principles of terminology processing was initiated. During this period the first approaches were made to standardize terminology within a language.

The third stage—the boom of terminology between 1975 and 1985—is marked by the proliferation of language planning and terminology projects; some countries like the former USSR and Israel had begun their language policies earlier. The significance of the role of terminology in the modernization of a language became apparent in this period. The spread of personal computers brought a major change in the conditions for processing terminological data.

In the most recent period of development (1985–present) some new issues are worth mentioning. Computer science is one of the most important forces behind changes in terminology. Terminologists now have at their disposal tools and resources that are better adapted to their needs, more user-friendly and more effective. At the same time there emerges a new market—that of the language industries—in which terminology occupies a privileged position. International cooperation is broadened and consolidated, as international networks are created to link agencies and countries which share characteristics or are interested in cooperation. Examples of this are the exchange of information and the international cooperation in training terminologists. Finally, the model of terminology linked to language planning, which is so necessary for developing countries, is being consolidated at this time.

2. Scientific and functional aspects

Throughout the last fifteen years, and in spite of often differing ideologies concerning a substantial number of the guiding principles of terminology, agreement has been reached. The fact remains, however, that in every country, the objectives and the working methods of terminology are subject to a wide range of factors, such as the country's political, socio-economic and linguistic situation. Rondeau & Sager (1986)

Not all experts agree that terminology constitutes a separate discipline, nor do all consider it a theoretical subject. For some, terminology is a practice dealing with social needs that are often related to political and/or commercial ends. In the opinion of others, terminology is a true scientific discipline that owes much to the other subject fields from which it borrows fundamental concepts; but it is, nevertheless, considered a separate discipline in the sense that it has reformulated and synthesized the original foundations so that it could build its own field. There are many interme-
diates positions which, although recognizing that terminology contains some original theoretical aspects, only conceive of it within the framework of other, more consolidated disciplines.

2.1 *The theory of terminology*

In the 18th- and 19th-century, scholars were alarmed by the proliferation of terms and were most worried about the diversity of forms and the relationships between forms and concepts. They were not concerned with the nature of concepts nor the foundations for creating new terms.

Theoretical concerns about the nature of terms arose later when terminological work began to be organized in some special fields as a result of practice. Wüster’s work is a good example. He was initially interested in methods of compilation and standardization of terms, and once they had been applied in *The Machine Tool* (1968), he concentrated on aspects of the theory of terms. Almost thirty years separate his doctoral thesis (1930), which was practice-oriented, from his publications on theory.5

We can thus say that terminological theory arose and is even today developed through practical experience that is, in its turn, motivated by the need to provide solutions to language-based problems in communication.

The work carried out in the 1930s, simultaneously but independently by Austrian, Soviet, and Czech scholars, is the basis for the beginning of what the Austrians would call terminology science. The three classical schools of terminology—the Austrian, the Soviet, and the Czech schools—all emerge from this work. Looking at the development of these three schools we can identify three different approaches that are not mutually exclusive:

- A first approach that considers terminology to be an interdisciplinary but autonomous subject at the service of scientific and technical disciplines
- A second approach focusing on philosophy, which is primarily interested in the logical classification of concept systems and the organization of knowledge
- A third approach focusing on linguistics, which considers terminology a subcomponent of a language’s lexicon and special languages as subsystems of general language.

A general theory of terminology is based upon the first approach in which the nature of concepts, conceptual relations, the relationships between terms and concepts and assigning terms to concepts are of prime importance. This focus on moving from concepts to terms distinguishes the methods used in terminology from those used in lexicography. The aim of terminographers is to assign names to con-
cepts; i.e. they move from the concept to the term (an onomasiological process). By contrast, lexicographers start with the word—the dictionary entry—and characterize it functionally and semantically; i.e., they move from the word to the concept, precisely in the opposite direction (a semasiological process).

This view, which today is considered the most systematic, coherent theoretical approach to terms, differs from lexicological theory in three ways: in the priority of the concept over the designation; in being exclusively concerned with the level of the terminological unit and not with the other levels of linguistic description; in excluding any diachronic approach or information.

Wüster considered terminology an independent subject which he defined as being concerned with the relationship between the sciences such as physics, chemistry, medicine, etc. and a combination of other disciplines such as linguistics, logic, ontology, and computer science.

The autonomy of terminology in relation to linguistics or, more directly, in relation to lexicology is fully justified. Terminology and lexicology differ in the way they conceive and deal with their approach to the object of study, in the object of study itself, in their methodology, in the way terms are presented and in the conditions that must be taken into account when proposing new terms.

Terminology shares with logic a basic interest in concepts. As opposed to semantics, which is interested in the name-meaning relationship, terminology is primarily concerned with the relationship between objects in the real world and the concepts that represent them. Logicians use a process of abstraction to generalize from various objects that exist in the real world to arrive at the concept or class of objects. To accomplish this, they eliminate the contingent and irrelevant characteristics from the individual objects and only retain those features that are pertinent for characterizing the class that represents the diversity. Terminology and logic also share an interest in the way concepts relate to one another. Indeed, the type of relationships and the system of symbols terminologists use to represent these relationships come from logic.

Terminology shares with ontology an interest in the nature of ‘things’ in the real world and the relationships established in this world. The concern of how to classify referents is not new for semanticists and philosophers, and ontology deals with the relationships that are not based on logic. Unlike logical relationships, these relationships do not start from the similarity between concepts but rather from their situation in the real world.

As far as the ties between terminology and computer science are concerned, Wüster claims that computer science is one of the keys to terminology because of the enormous possibilities it offers to store and retrieve information and to order conceptual systems.

Information science uses terminology to order concept fields that subsequently provide access to information about the documents. In Wüster’s view, writing
thesauri is a terminological activity because it focuses on the characteristics and structuring of content. Thesaurus descriptors are terms and characteristics at the same time, and the relationships established by terms in documents are considered to be logical relationships.

Finally, terminology is closely linked to the special subject fields. Terminology is not an end in itself, nor can terminological work be concerned with simply providing compilations of a series of concepts with their corresponding names. Terminology is at the service of science, technology and communication; as a result, it must work within the limits of providing a service to other disciplines. Subject specialists and general and applied terminologists work together to carry out the ordering and standardization of concepts and terms for each special field.

The current development of terminology is the result of advances in technology and the ever increasing need for specialized communication among communities with different languages.

2.2 Terminology, a new practice

As with any relatively new concept, terminology is subject to change, which depends on the theorists and specialists that practise it. The first reason for change derives from the relationship that terminology has with its preceding disciplines, especially with semantics, lexicology and lexicography. Some people believe that terminology is nothing more than a new perspective adopted by these older disciplines. Terminology is currently seen as an art or practice rather than as a science. Even though it has a well-defined aim, namely to satisfy the expressive needs of its users, its working methods are mainly empirical. Theoretical research and the refinement of the processes of recognition, analysis and creation of terms must improve before terminology can be placed among the sciences deriving from linguistics. Dubuc (1985)

If we agree with Dubuc we must acknowledge that there are a variety of views as to the nature of terminology, its purpose, and its position within the complex panorama of the sciences. In Dubuc’s opinion, the theory of terms and the practice of terminology lead to different positions. We can identify the two extremes: one position claims that terminology is a separate discipline with its own theory, while the other claims that terminology owes its theoretical assumptions to other, more consolidated disciplines.

The latter position is taken by Sager (1990), who, although not granting terminology a full independent status, acknowledges that the field has theoretical foundations upon which terminological practice is based:

There is no substantial body of literature which could support the proclamation of terminology as a separate discipline and there is not likely to be. Everything of import that can be said about terminology is more appropriately said in the context of linguistics or
information science or computational linguistics. We see terminology as a number of practices that have evolved around the creation of terms, their collection and explication and finally their presentation in various printed and electronic media. Practices however well-established, do not constitute a discipline, but there is no denying a long history of methodologies which themselves require theoretical underpinnings to justify their distinctive nature. Disciplines establish knowledge about things and as such are justified in their own right; methodologies are only means to an end, in the case of terminology, how to do things. — Sager (1990)

Defined as the process of compiling, describing, processing and presenting the terms of special subject fields in one or more languages, terminology is not an end in itself, but addresses social needs and attempts to optimize communication among specialists and professionals by providing assistance either directly or to translators or to committees concerned with the standardization of a language. This more pragmatic, applied view of terminology is more attuned to the requirements of contemporary society where epistemologic reflections have given way to more pragmatic attitudes. Dealing with real communicative needs in the fastest and most effective way has replaced both thought about the principles behind terminological issues and about the ways to address these issues.

The reasons for this change in direction can be attributed to a series of changes that have occurred in scientific disciplines and in society itself. We have moved from specialists’ concerns about the “right form” (i.e., the standard form) of the first third of this century, when Greek and Latin roots were preferred, to a more pragmatic and functional approach. This change has been brought about by the new approaches in theoretical linguistics, which have abandoned prescriptive grammar, by the growth of language policies aimed at addressing situations of language conflict, and by the leading role terminology has come to play in non-European countries like Canada, and within Canada, in Quebec. In addition, the enormous advances in computer science have altered not only the work carried out by large institutional bodies, but also that of individuals.

Even Sager, who does not believe that terminology is a separate discipline because it does not have its own epistemology, recognizes the importance of separate principles and methods suited to the purposes terminology processing wants to achieve: facilitating communication among specialists, or the self-assertion of technologically non-dominant languages by means of suitable intervention in and planning of language usage.

2.3 The functions of terminology

As an intersectional and multidisciplinary science, terminology is located at the crossroads of a large number of subdisciplines of linguistics (semantics or differential lexicology,
among others), but it is not their preserve. In L. Guilbert's words, "the essential aim of the terminological lexicon is not the language itself". In fact, terminology is closely linked to an activity carried out within the field of knowledge and thus it is inseparable from its social context and its obvious applications. Goffin (1985)

Terminology can only be understood in relation to special languages and communication and addresses a variety of purposes, all of which are related to communication and information. There is, consequently, a wide range of approaches to the theory and practice of terminology. We can, however, establish a series of basic assumptions shared by all approaches. We first need to identify four different points of view which in turn lead to different focuses for terminological work and applications:

a. For linguists, terminology is a part of the lexicon defined by subject matter and pragmatic usage.

b. For subject field specialists, terminology is the formal reflection of the conceptual organization of a special subject and a necessary medium of expression and professional communication.

c. For end-users (either direct or intermediary) terminology is a set of useful, practical communication units which are assessed according to criteria of economy, precision, and suitability.

d. For language planners, terminology is an area of a language requiring intervention in order to reaffirm its usefulness and survival and to ensure its continuity as a means of expression through modernization.

Mindful of these four points of view, we can now identify two major user groups of terminology: users of terminology for direct communication or communication through intermediaries, and terminologists, who write glossaries, facilitate communication, or mediate in some other way. According to the needs of these two groups, terminology can be said to have two dimensions which are closely related: a communicative dimension and a linguistic dimension. For the first group, terminology is a tool for communication. For the second, it is the target of their work.

Users

Two main groups of people use terminology as a communicative tool: direct users, and intermediaries who use terminology to facilitate communication for other users.

The direct users of terminology are the specialists in each subject field. For them, terminology is a necessary tool for communication and an important element for conceptualizing their own subject matter. This two-fold function that terminology has for them accounts for their interest in standardization as a process for determining the definition of concepts and fixing the corresponding names. Specialists use
terminology regardless of whether a term is appropriate within a particular linguistic system or not. Their communicative needs start from the knowledge of the concept and from the need to communicate it; their interest in terminology focuses on concepts and how they can be named clearly and unambiguously.

Terminology is primarily the business and the responsibility of several groups of specialists. Terminologists, with their working methods and knowledge, are merely technical aids in a multidisciplinary field. Corbeil (1982)

Terminology intermediaries are language professionals like translators, technical writers, and interpreters who need terminology to carry out their profession of facilitating communication. They need glossaries and specialized dictionaries because they assist in technical writing or in translating a text from one language to another.

Terminologists

Terminologists, terminographers and neologists, language planners and information scientists must be both specialists in language, information and documentation and in an appropriate subject field. Their work consists of compilation, description, processing and creation of terms.

2.4 Schools and working methods in terminology

As stated above, systematic interest in terminology arose simultaneously in several European countries (Austria, the former Soviet Union, and the former Czechoslovakia). It is from these three centres that terminological practice first expanded to the West (France, Canada, Quebec) and North (Belgium and Scandinavia) then in a second, more recent period to the South (Northern Africa, sub-Saharan Africa, Central and South America, Portugal, Spain) and, even more recently, to the East (China and Japan). Developments in each one of these regions are characterized by the context in which terminology is studied and by the purpose it aims to accomplish.

According to Auger (1988), we can establish three major orientations in terminology processing defined by their main objectives: terminology adapted to the linguistic system (the linguistic approach), terminology for translation (the translation approach), and terminology for planning (the aménagiste approach, as it is known in Canadian French).

a. Terminology adapted to the linguistic system

This orientation is represented by the three schools of Vienna, Prague and Moscow.

The Vienna school of terminology, which is the best known, is based on the work of E. Wüster and adopts his principles formulated in his ‘general theory of terminology’. This school’s importance stems from the fact that it has developed a
systematic corpus of principles and methods that constitute the basis of much theoretical work and modern practice. Its most salient feature is that it focuses on concepts, and steers terminological work towards the standardization of terms and concepts. The Vienna school arose from the needs of technicians and scientists to standardize the terminology of their fields in order to ensure efficient communication and transfer of knowledge among specialists. The principles of this school are reflected in standardized documents on the vocabulary of terminological work, and terminology as a discipline, on the field’s methodology and data transfer, and on the presentation of finished terminological products. Most of the countries in central and northern Europe (Austria, Germany, Norway, Sweden, and Denmark) work within this framework, in which the subject specialists themselves are responsible for specialized terminologies.

The Czech school of terminology, of which L. Drodz was one of the major proponents, arose as a result of the functionalist linguistic approach of the Prague school of linguistics. It is almost exclusively concerned with the structural and functional description of special languages, in which terminology plays an important role. Special languages are considered a “professional style,” which exists alongside other styles such as the literary, journalistic, or conversational styles. This school conceives of terms as units that make up the functional professional style. It arose as a result of the multilingual nature of its geographical area. It was very interested in the standardization of languages and terminologies, and its terminological work was linked to the Czech Language Institute (a part of the Academy of Sciences).

The Russian school of terminology, was based on the work of Caplygin, Lotte, and their co-workers; it was also aware of Wüster’s work from the time it first appeared. Consequently, it was mainly interested in the standardization of concepts and terms in the light of the problems connected with the multilingualism in the former Soviet Union (now the Commonwealth of Independent States).

These three schools of terminology, which all share a linguistically based perspective (they all consider terminology a medium of expression and communication) have given shape to the theoretical basis of terminology and the methodological principles governing its application. In addition, they are one of the main forces behind language planning and terminology as subsequently developed in Quebec and by the federal government of Canada.

b. Translation-oriented terminology

This second orientation in terminology, which supports translation, is highly developed in institutionally bilingual or multilingual provinces or countries, e.g. Quebec, the Walloon part of Belgium, and forms the basis for the terminological activities carried out by multilingual international bodies (e.g. UN, UNESCO, EU, FAO). It also represents the most important motivation for the creation of termino-
logical databanks (termium of the Canadian government, eurodicautom of the eu, btq of the Quebec provincial government, and others). This orientation establishes terminological equivalents in the various languages which are used as points of reference by translators and which contribute to the quality of a translated text.

c. Terminology oriented towards language planning

Language planning as an institutional activity was started in the 1960s and was initially intended to introduce policies supportive of the use of minority languages inside larger sociolinguistic areas. For example, in Quebec policies were implemented to secure a “normal” status for French and its full development in all spheres of usage. Similar plans are currently being implemented in many countries with language situations similar to those of Quebec. The underlying belief of this type of language planning is that the use of an unstable language can change with systematic, strategic intervention carried out by official bodies, with the right legislation and appropriate measures aimed at implementing the change. To attain the desired change, the language in question must have up-to-date, coherent terminology to ensure professional communication in all fields. The objective is to replace terminology imported from languages spoken in technologically dominant countries, thus fostering word-formation in the native language.

3. Organizational aspects

Terminology was not the result of the desire to create a different field. It is the enormous development of technology and the growing needs of communication among different communities that lies behind its development as an autonomous discipline. Dubuc (1985)

As Dubuc states, the circumstances of reality and the needs resulting from technological development in our society are the factors behind the emergence of terminology as a separate field of study and activity. The few works on the subject of terminology written in the 18th and 19th centuries as well as the systematic work of the first third of the 20th century can be seen as a direct response to this need. Today terminology continues on the course laid out by society’s needs. In full awareness that terminology is essential for specialized communication (because good terminology ensures its users that the communication will be precise and effective) countries in the developed world have set up centres and technical committees to provide standardized terminology for science and technology.

Developing countries have likewise understood that terminology is one of the tools that can give them access to the industrialized world because it is through terminology that the exchange of knowledge and technology transfer occurs. As a