Overview

Introduction

This publication is intended to assist and inform those who are interested in terminology standardization work. The first goal set for the volume is to improve both the quality and awareness of terminology in technical standards. Important secondary objectives, however, are to enhance communication among those who develop and use technical terminology and to increase awareness of terminology as a discipline.

As was the case for the first volume of this series\(^1\), the papers contained in this volume were presented at a symposium, in this case the Second Symposium on Standardization of Terminology: Theory and Practice. Papers from that symposium are contained here along with appended articles from ASTM's monthly publication, *Standardization News*.

Purpose of the Symposium

The objectives for the symposium were cast broadly and inclusively in order to obtain the largest range of participation by workers in many fields of terminology. Invited were papers dealing with the following subjects, among others:

1. Basic principles to be observed in preparing terminology standards.
2. The methods, principles, and guidelines for terminology work.
3. The role of dictionaries in standards development methods.
4. Case studies illustrating the importance of standard terminologies.
5. Establishment or use of computerized data banks in terminology.
7. National and international activities in the field of terminology.

To a large extent the topics listed above are addressed by the papers in this volume, which should therefore serve to introduce the reader not only to the fundamentals of terminology but also to some of the more pragmatic "nuts and bolts" issues of standardizing vocabularies and definitions as particular common problems are faced.

Scope of the Contributions

The basic principles of terminology as a discipline are surveyed from an international perspective in a paper by Galinski and Nedobity, in which some of the fundamental tenets of terminology are discussed as they apply to the development of languages for special purposes, that is, technical terminologies. The emphasis on conceptual analysis should be enlightening and useful for anyone involved in terminology development, perhaps especially in new or emerging fields.


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Applied Chemistry (IUPAC) to prepare a comprehensive vocabulary of chemical terminology is described by Loening. The details of this project, carried on for four years by the Interdivisional Committee on Nomenclature and Symbols of IUPAC, have resulted in the publication of an authoritative compendium of approximately 2500 terms from more than ten diverse fields of chemistry. Issues of nomenclature harmonization as well as the organizational structure of this effort provide important background for any who wish to develop or participate in international terminology activities.

A paper by Sonneveld and Loening deals with a parallel topic, the handling of new or newly coined terms. The field of neology, the activity of creating new terms, is considered with examples from the field of chemistry. This set of case studies demonstrates the application of sound terminological principles to the nomenclature needs of technical fields. A careful reading of this work should be useful and of clear value to terminology workers in many technical fields.

The problems associated with separately developed terminologies in a field are addressed by McKee from the experience of ASTM Committee E-7 on Nondestructive Testing. In a paper dealing with the particular problems of unifying disparate terminologies developed within a single ASTM technical committee, the author presents practical approaches to achieving consensus, guidelines and ideas that should be useful for many ASTM terminology activities.

A different approach in the art of dictionary construction is discussed by Burger, who describes an approach to the generating and classifying of process words (approximately corresponding to verbs) as compared with the standard dictionaries. One's sensitivity to verbs and their interrelationships is likely to be enhanced by a thoughtful reading of this presentation.

The attention in these papers is devoted to sets of terms. In other contributions, however, two papers dealt with conceptual analysis of terms. In-depth consideration is given to definition writing. A paper by Gat describes the work of a task group of E-43 on Metric Practice that dealt with a problem that at first glance appears minor but in which are embedded many often diverse attitudes about and complexities of selecting one term for one concept. The terms weight and mass are discussed with an analysis that includes semantic, historical, and technical factors. Ample demonstration is given that nontrivial problems can be associated with even the most established of concepts. Terms as fundamental as these are found in every field, and the structure of the analysis presented in this paper may be expected to be widely useful.

A paper by Freund, also dealing with fundamental concepts, treats the terms quality and grade, with the case being argued that notes in addition to the basic definition are essential to a definition. The conflict in perception that can occur when terms such as nonconformity and defect are used by technical workers in a field and by the general public is also elaborated. The final part of the paper presents a strong case for new ways to handle multiply defined terms, here with regard to statistical terminology. It would be difficult to imagine anyone arguing some of the issues associated with multiply defined terms without being fully aware of the discussion presented in this paper.

In a different mode, computerized data bases have been under development for only a few years. The value associated with these efforts is discussed in the paper by Strehlow, who describes the structuring of terminology data present in a definition in data-base form. The paper is intended to be useful to terminology workers who have an interest in exploring this modern terminographic aspect of the field of terminology.

Ellis, in his description of the management of terminology in standards organizations, presents an overview of the history of terminology activity in ASTM and demonstrates that the recognition by ASTM technical committees of the principles of terminology in their work will lead to increased usefulness of ASTM standards. Similarly, attention to the principles of sound management of terminology will lead to standards of high quality. All who are interested in continuing to improve the quality of the standards with which they are involved may expect to find insight and practical value in these considerations.

It is seen from the activities described in these several areas that much more work is needed in identifying problem areas and thereby enhancing terminological standardization. The breadth
of topics and the international representation do show, however, that the continued interaction between ASTM and other terminology organizations in the world has led to the recognition that ASTM is now becoming a focus in the United States for technical terminological standardization activity.

Appendix

The scope of the papers described above shows that the areas addressed and, indeed, the range of subjects considered provide a fully sufficient content for the purposes of this publication. The book contains, however, a significant addition beyond the papers from the symposium.

For several years a regular feature of the monthly ASTM publication Standardization News has been a short contribution called “Terminology Update.” A collection of these informal articles for the past three years is included in this book as an Appendix. The articles have not been subjected to the peer review process used for the papers in the book. Nonetheless, they offer comment and frequent insights that have been found to be of value to many ASTM members. The updates have been included in the Index for the convenience of the reader.

Conclusion

For many years the emphasis in ASTM terminology management was aimed at developing an awareness of the importance of terminology to the standardization process and to the quality of definitions of technical terms. These objectives have been and continue to be properly emphasized. The first volume in this series presented to the ASTM community an enhanced awareness of the world-wide theoretical and applied work in terminology that had developed at the same time. This volume continues this informing process, but also emphasizes the now recognized fact that terminological work is far broader than definition writing alone.

Conceptual analysis in terminology work is an area that clearly is becoming more widely recognized. This is in accord with developments in the field of terminology. The developing computerized access to standards leads one to expect that both the accessibility and use of standard terminologies will increase in the future. The resulting need for considering other types of terminological output, such as thesauri or keyword lists that are useful for searching, is clear.

Increased interaction with foreign standards groups, now occurring in some ASTM committees, is clearly becoming more important. The increasing need for foreign equivalents of standard terms is becoming recognized in many technical committees. This book, along with the first of this series, presents instructive and broadly applicable data that should assist the reader in more effectively working with international groups in addition to the always important activity of working to improve the quality of ASTM’s standard terminologies.

The present volume gives evidence that terminology management in the standardization process is becoming more broadly developed as principles of terminology science become more widely appreciated. From the papers in this volume we may expect, consequently, that activity in terminology will continue to increase in breadth and in depth.

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