From ISO5127:2001 to ISO5127:2017: A Study of International Terminology Standards in the Context of Digital Transformation (Postprint)

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Abstract

[Purpose/Significance] As a fundamental standard in the field of information and documentation, investigating the corresponding changes of terminology standards in the digital context can provide guidance for the development and transformation of the information and documentation field.

[Method/Process] By introducing the background of the standard revision and employing comparative research method, conceptual analysis method, and thematic analysis method, this study compares and analyzes the framework structure as well as the format and content of terms between the old and new versions of ISO5127:2001 and ISO5127:2017 terminology standards.

[Results/Conclusion] The application of computer and internet technologies has triggered unprecedented transformation in information and documentation work. The new version of the standard incorporates new terms covering production, storage, preservation, retrieval, dissemination, and research within information and documentation work in the context of digital transformation, reflecting the development and changes in information and documentation work.

Full Text

From ISO 5127:2001 to ISO 5127:2017: Research on International Terminology Standards in the Context of Digital Transformation

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Abstract: [Purpose/Significance] Terminology standards serve as foundational standards in the field of information and documentation. Exploring their evolution in the digital context can provide directional guidance for the development and transformation of the information and documentation domain. [Method/Process] By introducing the background of the standard revision, this study employs comparative research methods, conceptual analysis, and subject analysis to compare and analyze the framework structure, terminology format, and content between the old and new versions of ISO 5127:2001 and ISO 5127:2017. [Result/Conclusion] The application of computer and Internet technologies has triggered unprecedented changes in information and documentation work. The new version of the standard expands terminology covering production, storage, preservation, retrieval, dissemination, and research within the information and documentation field under the digital transformation context, reflecting the developmental changes in information and documentation work.

Keywords: information and documentation; terminology; standard; digital transformation

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The rapid development of information technology has transformed the digital foundations of industries such as libraries, information science, archives, and publishing within the information and documentation field, challenging certain IT-driven information and documentation practices and leading to the redefinition of concepts, reconstruction of theoretical models, and reengineering of business processes [1]. To promote closer collaboration among different professional branches and maintain conceptual consistency between documentation terminology and information technology terminology, ISO/TC 46 published ISO 5127:2017 *Information and documentation — Foundation and vocabulary* in 2017, replacing ISO 5127:2001 *Information and documentation — Vocabulary* issued in 2001. This update has played an important role in helping information and documentation work adapt to digital transformation and has laid a foundation for the development of the information and documentation field. In this context, comparing the main content and differences between the old and new standards is significant for grasping the transformation of the information and documentation domain in the digital era and promoting common development across various sub-disciplines.

1 Literature Review

"Information and documentation" is a vast field encompassing all aspects of information activities and documentation work. Standards refer to "documents established by consensus and approved by a recognized body that provide rules, guidelines, or characteristics for activities or their results, for common and repeated use" [2]. China's early standardization efforts in information and documentation developed based on learning from and drawing upon the experience of

international standards organizations. ISO (International Organization for Standardization) is the world's leading international standardization organization, dedicated to guiding the drafting, review, voting, and publication of standards to raise public awareness of standards and standardization. TC 46 is a technical committee under ISO, primarily responsible for standardization related to libraries, documentation and information centers, publishing, archives, records management, museum documentation, indexing and abstracting services, and information science [3]. In 1979, the Chinese delegation attended the ISO/TC 46 annual meeting in Warsaw, gaining insight into the development trends of international information and documentation work and initially establishing China's information and documentation standardization system [4].

In today's networked and digital environment where literature and information are increasingly integrated, the demand for the effectiveness and applicability of information and documentation standards continues to grow. Consequently, research on international standards in the information and documentation field has become a focus of scholarly attention. Li Guangde, Liang Shuzhong, and Zhang Yong pointed out that research on international standards has strong urgency in the areas of network information resource organization and integration, digital library development, and resource sharing, and that international standards formulated by organizations such as ISO, IFLA, IEC, ITU, and IEEE in the information and documentation field are worthy of China's study and reference [5].

ISO 5127 is a foundational terminology standard within the information and documentation standard system developed by ISO/TC 46, providing a basic conceptual system for the information and documentation field with broad guiding significance [6]. Scholars both domestically and internationally have conducted a series of studies on ISO 5127. Liu Chunyan et al. were the first to identify limitations in ISO 5127, such as its failure to consider multicultural and multilingual differences, inconsistencies with other terminology published by ISO/TC 46, and incomplete conceptual systems in its categories, and proposed relevant revision recommendations [7]. Subsequently, Liu Chunyan et al. proposed targeted revision principles and methods, as well as maintenance and development recommendations for ISO 5127 based on terminology standard development methodology [8]. In 2016, Liu Chunyan conducted a comparative analysis of terminology maintenance technical solutions, proposing that semantic description and network maintenance represent the development direction for ISO 5127, and employed the SKOS scheme to analyze the structured semantic relationships of ISO 5127 terminology [9]. Zeng Xinhong et al. detailed the process of the SKOS semantic description scheme and conducted systematic verification based on the overall information and structural characteristics of terminology entries in ISO 5127 [10]. L. Varlamova believes that introducing information technology into professional fields such as records and archives management has made terminology system coordination increasingly important, and that international terminology standards are effective tools for resolving terminology incompatibility. By comparing 15 international standards (all published

by ISO and IEC), including both old and new versions of ISO 5127, she proposed that the International Organization for Standardization is committed to updating and revising ISO 5127 precisely to develop terminology systems applicable to different professional fields (library science, documentation, and archival science) [11].

Although ISO 5127 was systematically updated in structure and content in 2017, the new version has not received sufficient attention since its release. Domestic scholars' research on the ISO 5127 standard has been relatively concentrated before the new version's release, with studies limited to revisions and maintenance of the old standard. Foreign research is even scarcer; while some scholars have studied international standards, their focus has been on terminology consistency issues among standards issued by different international standardization organizations, lacking comparative research on the old and new versions of ISO 5127 and analysis of the significance and impact of the new standard on regulating terminology systems.

2 Background Analysis of Standard Revision

ISO 5127 was originally published as a series of standards consisting of 14 standards covering basic concepts, traditional documentation, and image documentation [12]. In 2001, ISO/TC 46 merged these standards to form ISO 5127:2001. In the more than ten years following its release, as the influence of the Internet's centrality and connectivity capabilities strengthened, the world began to enter the digital transformation era. According to the 45th Statistical Report on China's Internet Development released by the China Internet Network Information Center (CNNIC) in 2020, as of March 2020, China's internet user population reached 904 million, with an internet penetration rate of 64.5% [13]. The popularization of digital technology and the decline in data collection, processing, and storage costs have accelerated digital transformation across all industries. In January 2020, IDC, a top global market research firm, released its FutureScape: Worldwide Digital Transformation 2020 Predictions, indicating that direct investment in digital transformation will approach $7.4 trillion between 2020-2023, growing from the current 36% to over 50% of total ICT (Information and Communications Technology) investment [14]. While reshaping the economy and society, digital transformation has also brought tremendous impact to the information and documentation field. Information in the form of text, images, audio, and video stored digitally on carriers such as CDs and hard drives exists widely, greatly enriching and expanding the connotation and extension of information. The rapid development of the Internet has enabled information dissemination to reach unprecedented speed and scope, while profoundly influencing the ways and habits through which humans access information.

Digital technology has changed the environment of the information and documentation field, causing fundamental terminology (such as information, data, and documentation) that existed in traditional contexts to undergo tremendous changes, making them inconvenient to distinguish and use. At the same time,

the spontaneous use of certain IT vocabulary by various professions has also led to a lack of consistency in terminology across different professional fields. The primary purpose of terminology standard development is to regulate the use of professional terminology within a specific domain [15]. Against this background, there is an urgent need to introduce basic terminology related to digital transformation into the development of information and documentation standard terminology. Therefore, ISO 5127:2001 was no longer suitable for the actual development of the information and documentation field in the digital age and required timely revision and improvement to supplement new technical vocabulary emerging during the digital transformation process and to distinguish the meanings of basic terms in traditional versus digital environments. To establish a sound digital foundation for the information and documentation field and promote interoperability among various sub-domains, the 2017 new version expanded terminology coverage, updated definitions for some terms, and reflected the timeliness and applicability of international standards.

3 Main Differences Between ISO 5127:2001 and ISO 5127:2017

Compared with the old version, the new version has undergone significant changes in chapter structure, terminology format, and content.

3.1 Chapter Restructuring

ISO 5127:2001 includes six sections: Foreword, Introduction, Terms, Bibliography, English Index, and French Index [16]. ISO 5127:2017, however, contains eight sections: Foreword, Introduction, Scope, Normative References, Terms and Definitions, Annex, Bibliography, and English Alphabetical Index [1], representing substantial changes in framework structure (see [Figure 1: see original paper]). The new version no longer includes a French index and treats Scope and Normative References as independent sections, a change that aligns with ISO's latest generic standard structure. Additionally, Annex A describes the ISO 5127 SKOS scheme. SKOS (Simple Knowledge Organization System) is a simple knowledge organization system published by the World Wide Web Consortium (W3C) in 2004, providing a common framework of classes and properties to better describe various knowledge organization systems [17]. ISO 5127:2017 divides 13 identification elements into four categories: overall information, terminology concept framework, notes, and examples. Overall information includes five elements: identifier, contributor, creator, title, and language; the concept framework includes six elements: concept, notation, prefLabel, altLabel, note, and source; notes include one element: definition; and examples include one element: example. These identification elements are explained through SKOS core, ValueOrExample, and Annotation.

Comparing the specific composition of each chapter reveals that the new version has made significant changes to the Introduction and Terms and Definitions

sections. The Introduction no longer merely describes the main content of the terminology system; it transforms the principles and rules from the old standard (entry organization, entry classification) into entry organization rules and adds three subsections: General Principles, Functions, and Terminology Coherence. General Principles introduces the positioning and development purpose of ISO 5127; Functions comprehensively summarizes the 13 functions of ISO 5127:2017; Terminology Coherence indicates that ISO 5127:2017 is not merely a compilation of terms but an appropriate, interconnected system that arranges all terminology entries from general to specific, placing synonyms and antonyms adjacent to each other. The most significant changes occur in the Terms and Definitions section, which increased from seven categories to 13 categories. Sections "3.2 Basic Concepts of Information and Documentation Work" and "3.5 Tertiary Literature" are entirely new, while "3.3 Objects, Data Carriers, Documentation" and "3.4 Documentation" represent decomposition and supplementation based on Chapter 2 of the old standard ("Documentation, Data Media, and Others"). Sections "3.7 Analysis, Representation, and Content Description of Documentation and Data," "3.8 Content Analysis and Content Description," "3.9 Storage," and "3.10 Finding and Retrieval" represent decomposition and supplementation based on Chapter 4 of the old standard ("Documentation Processes").

3.2 Format Updates

The terminology entry format in ISO 5127:2001 was organized according to ISO 10241:1992 *International terminology standards — Preparation and layout*, consisting of entry number, preferred term, French equivalent, identified synonyms, and definition (see [Figure 2: see original paper]). The entry format in ISO 5127:2017, however, complies with ISO 10241-2:2012 *Terminological entries in standards — Part 2: Adoption of standardized terminological entries*. The most notable change is the removal of corresponding French terms and the addition of specific chapter references from corresponding standards in terminology sources (see [Figure 3: see original paper]).

The same term may contain multiple meanings, i.e., homographs exist. To maintain conceptual uniqueness, ISO 5127:2001 adopted a "concept + serial number" format for identification. For example, "certification (2)" consists of "certification" + "(2)". While keeping the concept and definition unchanged, ISO 5127:2017 adds labels such as subject domain or part of speech (noun, verb) to further distinguish homographs. As shown in [Figure 4: see original paper], the meaning of "certification (2)" is "a statement about the degree to which a product or service meets specified requirements in a control program." ISO 5127:2017 adds the label to this term. Additionally, ISO 5127:2017 uses "Note" instead of "cf." to express concepts related to the term, a change that also adds cross-references to terminology concepts within the standard and with other standards to the notes section beyond further explanatory information about the term.

3.3 Terminology Refinement

Compared with the old version, ISO 5127:2017 has a more refined terminology system, with the number of terms increasing from 1,090 to 2,012, including 998 retained terms, 92 deleted terms, and 1,014 new terms. Among the retained terms, 58 have undergone significant changes in expression. Taking "information" as an example, ISO 5127:2001 included two entries: "information (1)" and "information (2)," defined as "knowledge communicated" and "general message used in the communication process to increase knowledge," respectively. ISO 5127:2017, however, retains only one entry for "information," expressed as "data that has been processed, organized, and related to produce meaning." This conceptual change from "representation of knowledge" to "meaningful data" aligns with the explanation of information in the DIKW pyramid model and reflects a deeper understanding of the relationships among data, information, and knowledge [18]. Some terms with consistent definitions have also been appropriately modified and refined for easier understanding. For example, the meaning of "annotation" was changed from "short content description of a document" to "part of a document that provides a short verbal content description or short comment on another document or part of a document," clarifying that an "annotation" is "part of a document" based on the original concept.

The addition and deletion of terms are shown in [Figure 5: see original paper] and [Figure 6: see original paper]. Deleted terms are mainly concentrated in Chapters 4, 6, and 7 of ISO 5127:2001, accounting for approximately 62% of all deleted terms. New terms are primarily concentrated in Chapters 3.1 to 3.6 of ISO 5127:2017, totaling 845 terms (about 83% of all new terms), representing approximately 60% of the 1,418 current terminology entries in Chapters 3.1 to 3.6.

4 From ISO 5127:2001 to ISO 5127:2017: Transformation in the Context of Digital Transformation

Based on the new terms related to digital transformation in ISO 5127:2017, this study examines the cognitive changes in the information and documentation field as the standard adapts to global digital transformation. The screening of relevant terms proceeded through four stages (see [Figure 7: see original paper]): Stage 1 selected new terms from all terms in ISO 5127:2017, yielding 1,014 terms; Stage 2 excluded terms from chapters unrelated to digital technology, obtaining 722 terms; Stage 3 reviewed preferred terms and identified synonyms, excluding terms unrelated to digital technology, obtaining 316 terms; Stage 4 conducted detailed analysis of each term's definition, notes, and examples, ultimately obtaining 239 relevant terms.

According to the basic activities and processes of information and documentation work [19], subject analysis and induction of the screened relevant terms reveal that new terms in ISO 5127:2017 are reflected in various sub-domains of information and documentation (see): production, storage, preservation, re-

trieval, dissemination, and research. Among these, the application of digital technologies such as computers and the Internet has particularly impacted production (N=66), storage (N=91), retrieval (N=53), and dissemination (N=23).

4.1 Production of Information and Documentation

Research analysis indicates that new terms in the information and documentation production domain have associative relationships (see [Figure 8: see original paper]). In the context of digital transformation, the scope of information has expanded to include anything that can be digitally processed by computers and disseminated on networks [20]. Data is the basic unit for processing information semantically and technically. ISO 5127:2017 newly added three subsections under "3.1 Basic and Framework Terms": "3.1.10 Data Types," "3.1.11 Basic Data Operations," and "3.1.12 Digital Data Processing" to reveal the datafication and operability of information. Documentation forms have also become more diverse. Driven by digital publishing, the publishing industry has achieved digitization of both production processes and publication forms [21], with digital publications such as e-books, e-journals, and DVDs emerging rapidly. ISO 5127:2017 has added many terms related to digital publications, such as "3.3.3.10 E-book" and "3.3.3.35 E-journal." E-books are defined as "non-serial digital documents," while e-journals are "serial digital documents." Both share the common characteristic that "relevant information can be searched online whether or not permission has been obtained." Another prominent feature of digital publications is the separation of content and medium [22]. Digital documents are defined as "information units with determined content that have been digitized or are born-digital," while digital resources are "resources that can be transmitted and/or accessed through information technology systems," neither emphasizing the unity of content and carrier. To reflect this change, ISO 5127:2017 divides document production into two parts: "3.3.4 Intellectual Production Process of Documents" and "3.3.5 Physical Production Process of Documents."

4.2 Storage of Information and Documentation

The relationships among new terms in the information and documentation storage domain are shown in [Figure 9: see original paper]. Storage is the foundation of retrieval, primarily involving the selection of information and documentation within a certain professional scope, followed by characterization, processing, and organization to establish databases [23]. Under the digital transformation context, meeting the requirements for processing and organizing digital information resources necessitates establishing a completely new information organization framework. Using metadata—an open and flexible resource description format—can assist in the organization and discovery of digital information resources [24]. Therefore, ISO 5127:2017 added "3.1.10.26 Types of Metadata" under "3.1 Basic and Framework Terms." As an information description tool, metadata can provide standardized and universal description benchmarks and methods for

diverse and heterogeneous digital information resources [25-26]. Various metadata formats for different resource types have been developed, such as DWA, DC, EAD, FGDC, GILS, TEI, and VRA, all of which have significant international influence [27]. Dublin Core metadata, developed for network and digital resources, is "a set of 15 basic metadata elements for resource description in a cross-disciplinary environment." Due to its simplicity, universality, and extensibility, Dublin Core metadata has become a widely accepted metadata standard worldwide. Additionally, ISO 5127:2017 includes various metadata types such as "3.1.10.26.02 Administrative Metadata," "3.1.10.26.03 Content Metadata," and "3.1.10.26.04 Technical Metadata" to comprehensively cover the functions and roles of metadata, providing guidance for information description.

In traditional literature retrieval system compilation, information description was also known as bibliographic description. ISO 5127:2017 added terms such as "3.7.2.38 Resource Description and Access (RDA)," "3.7.2.39 Conceptual Reference Model (CRM)," and "3.7.2.40 Lightweight Information Describing Objects (LIDO)" under "3.7.2 Description and Cataloging." Resource Description and Access is a cataloging standard proposed to meet new requirements for resource description and retrieval in the digital environment, creatively presenting a set of more comprehensive principles and instructions for describing and retrieving resources of all content and media types. The Conceptual Reference Model facilitates exchange and integration among diverse cultural heritage information sources. Lightweight Information Describing Objects, built upon CRM, aims to provide metadata for online service use, typically employed in online collection databases, resource portals, and publicly shared and linked data on networks [28]. This evolution from computer processing of bibliographic records to description and cataloging of resources such as digital resources and cultural heritage resources, as well as online services, reflects the continuous development and improvement of information and documentation description and cataloging in response to digital transformation challenges.

Simultaneously, considering that computer data is generally stored on hard disks and managed using database technology, ISO 5127:2017 added the subsection "3.1.13 Data Representation in Databases." A database is a collection of interrelated data organized and stored according to certain data models, shareable by multiple users, independent of applications, which can be understood as a "warehouse" for storing data [29]. This subsection provides some basic concepts for data organization and records within databases. For example, "3.1.13.31 Conceptual Model" defines a model of domain concepts, "3.1.13.27 Entity" refers to anything that can be uniquely identified, "3.1.13.07 Data Description" is the formal description of a data element within a specific data structure (a collection of data elements with specific relationships), and "3.1.13.08 Data Field" refers to components in data records, with title, author, and publication date being typical data fields in bibliographic records. Although ISO 5127:2017 supplemented explanations in examples and notes sections, some definitions remain overly simple and abstract, making them difficult to understand.

4.3 Retrieval of Information and Documentation

Broad information retrieval includes both storage and retrieval processes, while narrow information retrieval refers only to the latter stage—finding required information from information collections, also known as information searching [30]. The information and documentation retrieval domain has added many basic terms under the influence of digital transformation, with their associative relationships shown in [Figure 10: see original paper]. With the continuous development of networks and information technology, traditional data analysis tools cannot meet the operational processing needs of massive data. To address this challenge, ISO 5127:2017 added 11 terms under "3.10.2 Search Methods and Elements," such as "3.10.2.05 Data Mining," "3.10.2.28 Full-Text Search," "3.10.2.29 String Search," and "3.10.2.30 Automatic Search." Data mining is a process of finding and retrieval that "identifies patterns through analyzing quantitative data from different angles and dimensions, classifying and summarizing their potential relationships and impacts." Full-text search is "a technology for searching all text stored in computer-stored documents or databases." ISO 5127:2017 provides a relatively simple definition for string search as "searching through strings," while automatic search means "a single query in the user interface can search multiple databases simultaneously without database selection." The above information and documentation search and retrieval methods, using computers as tools, not only expand the scope of search and retrieval but also improve their efficiency and level.

4.4 Dissemination of Information and Documentation

Digital dissemination built upon communication technology and computer networks is a type of dissemination that uses the Internet as a medium for information transmission, providing fast and convenient dissemination means for information and documentation [31]. ISO 5127:2017 added "3.1.9 Digital Dissemination" after "3.1.8 Information and Communication," with the relationships among terms in this new section and other related terms in the information and documentation dissemination domain shown in [Figure 11: see original paper]. Digital dissemination is also known as network dissemination. The Internet is "a global system formed by interconnecting digital networks in the public domain," whose emergence has subverted traditional mass communication operation models, broken the boundaries between information producers and users, and made every user connected to the network a potential information producer, disseminator, and user [32]. Since the 1990s, the Internet has evolved from Web 1.0 to Web 4.0. To fully explain this evolution, ISO 5127:2017 added a series of terms related to the Web. Web 1.0 is the first version of the Internet, "primarily used for email and the publication and consultation of static HTML pages"; Web 2.0 is "a broadly defined interactive Internet service and information sharing model"; Web 3.0 links Internet addresses and data not only through addresses but also through "semantic content or meaning"; Web 4.0, also known as the Internet of Things, adds functions on the basis of 3.0, such as interconnecting

devices to achieve automated remote control. From information resource aggregation, information interaction, and computer intelligent processing to the interconnection of all things, the development of the Internet reflects the transformation of digital information technology in information dissemination.

This transformation has also brought changes in information acquisition methods. Using network approaches such as databases, digital libraries, and digital archives for resource acquisition breaks through time and space limitations, bringing great convenience to users. Taking the new terms "3.11.1.04 Remote Access" and "3.11.1.22 Virtual Access" as examples, remote access refers to "using electronic resources stored on servers via computer networks," which was introduced to libraries in the late 1990s and quickly became popular, making access to library resources and services more convenient and intuitive for remote users [33]. Virtual access refers to "a continuous user activity session on an information and documentation organization's website by users outside the organization's IP address."

5 Conclusions and Discussion

ISO 5127:2017 responds to the developmental demands of the digital transformation era by timely revising and adding basic terminology for information and documentation work, building a bridge between the information and documentation field and the IT industry, and laying a foundation for the development of the information and documentation field. However, it still has issues with missing terminology in information and documentation preservation and research domains. For example: (1) In the "preservation of information and documentation" domain, only seven terms were added, with new terms such as "3.12.1.19 Digital Preservation," "3.12.1.20 Simulation," and "3.12.4.31 Distortion" being new vocabulary in the digital context, but neglecting physical preservation technologies for documentation, especially intelligent warehouse management systems and corresponding infrastructure applications; (2) Under the digital transformation background, "research on information and documentation" has become increasingly rich, with big data becoming an important component of modern information science research, showing trends toward "intellectualization" and "smartization," and digital humanities becoming one of the research hotspots [34], but these changes are not reflected in the terminology system; (3) Although numerous terms were added in the "storage of information and documentation" domain, considerations for data storage and data security issues in cloud computing environments remain insufficient. The discovery of these issues has led ISO 5127:2017 to immediately enter a new round of revision after its 2017 release [19], simultaneously demonstrating the necessity of accelerating terminology standard revision and updates.

China issued GB/T 4894-2009 *Information and documentation — Vocabulary* in 2009, which was not a complete adoption of ISO 5127:2001 but underwent reasonable modifications and supplements. First, to facilitate use, a Chinese pinyin index was added based on the original English index. Second, considering the

eight-year interval between adoption and the release of ISO 5127:2001, some vocabulary was added to adapt to the times, such as “information resources” in “4.1 Basic and Framework Terms” and “metadata,” “interoperability,” and “DOI” in “4.4 Documentation Processes.” Additionally, to align with China’s cultural background and the practicality of national standards, terms such as “Xuan paper,” “oracle bone,” and “bamboo slip” were added in “4.6 Document Preservation,” while terms like “patent reissue,” “patent reexamination,” “joint priority,” and “third party” in “4.7 Legal Issues of Information and Documentation Work” were deleted.

Against the backdrop of digital transformation, China should pay close attention to the latest developments in international standard development and revision, track research on international standard development trends, and based on experience in adopting and developing existing standards, prioritize the adoption plan for ISO 5127:2017 to provide a solid foundation for the development and transformation of the information and documentation field.

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Luo Huiyu: Chart drawing and paper revision;
Liu Chunyan: ISO 5127 standard consultation.

English Abstract:
[Purpose/significance] Terminology standards are the basic standards in the field of information and documentation. Exploring the corresponding changes

in the digital context can provide directive guidance for the development and transformation of the information and documentation field. [Method/process] By introducing the background of the standard revision, the comparative research method, conceptual analysis method, and subject analysis method were used to compare and analyze the framework structure, format, and content of terms between the old and new terminology standards of ISO 5127:2001 and ISO 5127:2017. [Result/conclusion] The application of computer and Internet technologies has caused unprecedented changes in the field of information and documentation. The new version of the standard has expanded new terminology within the context of digital transformation for production, storage, preservation, retrieval, dissemination, and research in information and documentation work, reflecting the development and changes in information and documentation work.

Keywords: information and documentation; vocabulary; standard; digital transformation

Note: Figure translations are in progress. See original paper for figures.