

# Libraries and Documentation in Germany: A Long-Lasting Conflict

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## Abstract

Over a long period German librarians and documentalists have had very different and conflicting views on the need for modern documentation methods, especially in traditional general and academic libraries. This paper traces the creation of formal associations for libraries and for documentation from the period before World War I to the present. It identifies some of the leading figures in the library and documentation movements, reports on the nature of the objections of librarians to documentation, and discusses possible causes for the antagonism between the “two sisters”—librarians and documentalists—that continues into the present.

At present libraries in Germany are having a difficult time. The digitization of their services is causing serious budgetary problems, and budgetary increases are not expected. On the eve of the 2002 annual meeting of the German librarians the so-called Deutscher Bibliothekartag (German Library Convention), Rainer Kuhlen, a well-known German information scientist, published an article in the German newspaper *Frankfurter Allgemeine Zeitung* titled “Abendländisches Schisma: Der Reformbedarf der Bibliotheken” (Great Western schism: The need for reforms in libraries) (Kuhlen, 2002). He quoted the recommendations of the Scientific Council of Germany, which described information supply in university libraries as follows: “University libraries have not yet developed into centers providing sufficient digital information and publications . . . and do not give teachers and students adequate support” (p. 46). He proposed to librarians that they use information science techniques to cope with the new challenges of digital information. The reaction of the librarians was negative. Wilfried Sühl-Strohmeier, a

leading figure in the Association of German Librarians, answered with a letter to the editor rejecting any cooperation between librarians and information scientists. It also stated that libraries can solve their problems alone (Sühl-Strohmeier, 2002).

This reaction, however, is not new or surprising. The long-lasting dispute between librarians and documentalists can be traced back to imperial Germany before 1914. An enormous push for modernization affected the industrialized countries at that time. Seen from our perspective today, it can even be considered as a first push toward globalization. It influenced many parts of the society—the pacifist movement, politics, pedagogical trends, the sciences, industrial production, and last but not least scientific and technical information. Many special libraries were funded outside the universities, mainly in industrial companies. In Prussia, for example, the largest state of the German Reich, leading figures from industry and technology demanded a publicly funded, generally accessible Center for Scientific and Technical Information (Zentralstelle für Technisch-wissenschaftliche Information) for the collection, evaluation, and dissemination of bibliographic information. This idea was supported by small and medium-sized enterprises that did not have their own R&D and patent departments, by scientific associations and societies, and by individual inventors, scientists, and technicians.

As early as 1829 the famous German librarian Martin Wilibald Schrettinger wrote in his textbook for librarians that catalogs and bibliographies about journals and books were only a first step. The necessary second step should be the compilation of catalogs of the single articles in these documents (Scheele, 1978). But the

origin and development of documentation in Europe are closely connected to the concepts of the Belgian lawyers Henri La Fontaine and Paul Otlet (Rayward, 1997). They triggered activities in Europe that may be described as a “movement”—with a sprinkling of utopian ideas. The movement had its roots in the changing requirements expected from the services of librarians in general libraries. Information about books and journals in catalogs, journals, and bibliographies alone was no longer sufficient. Around the turn of the twentieth century the situation seems to have required new alternatives; the established library system was no longer considered capable of bringing about changes.

The term *documentation*, taken from the French legal system, was vague enough to define something new. Documentation is the collection, classification, and exploitation of documents of all kinds in all fields of interest (Schürmeyer, 1935, p. 533). Otlet and La Fontaine were striving for a “universal memory” (*Weltgedächtnis*), a “giant intellectual mechanism which aimed at collecting and condensing scattered and diffuse knowledge in order to distribute it where ever it would be needed” (Otlet, 1907, p. 7).

The enlarged notion of documentation originated from the users’ demands for the provision of information, not simply the supply of documents. Specialization, topicality, and relevance to practice were becoming important. This enlarged notion was the main source of dispute and diverging views between librarians and documentalists. Some librarians found it hard to accept that from the user’s view documentation meant something different than the compilation of specialized bibliographies and repositories, whereas documentalists often misunderstood the situation of universal libraries, which was frequently nourished by the fear of a separate documentation system with structures independent of the library system and its influence. The utopian aspects of the documentation movement (the idea of a “universal memory”) have been of little if any importance in these disputes.

### Early Days in Germany

The most revered and oldest of librarian professional associations in Germany is the Association of German Librarians (Verein Deutscher Bibliothekare, or VDB),

which has been in existence for more than a hundred years. This association exists basically to represent the interests of senior-grade librarians in academic libraries. The *Centralblatt für Bibliothekswesen*, a journal for librarianship, has been published since 1884 in Germany. After three years of preparation, during the first librarians’ convention in 1900 in Marburg the VDB was founded as an association especially dedicated to German scholarly libraries. The goal of those brought together in this association was to promote not only the interests of their members but also the technical work supporting the organization of libraries. The foundation of the VDB coincided with the development of the profession of librarianship in Germany.

Vague conflicts marked the interactions of documentation and the library system. The acquisition and collection of documents as preparatory work to analysis and abstracting was the first source of friction with librarians who have never accepted the collection process as part of the documentalist’s work. Instead they see it as one of the core tasks of library work. This attitude was probably triggered by the fear of being pushed aside by documentation.<sup>1</sup>

In fact, modernization and utopian dreams have never met general acceptance, and imperial Germany before 1914 was no exception. One consequence of modernization in Germany was that the library and documentation systems drifted further apart than in any other industrialized country, not only with respect to argumentation and aims but also above all in terms of structure and organization. The movement for the modernization of society and industry initiated a large number of international or transnational information activities across Europe. Since 1901 the Royal Society in London had been publishing the *International Catalogue of Scientific Literature* (International Council, 1902–1919) by international cooperation. The German literature was contributed by the Deutsches Bureau der internationalen Bibliographie (German Bureau of International Bibliography), which was established by the Department of the Interior of the German Reich.

In 1905, in Berlin, Hermann Beck had founded the International Institute for Social Science Bibliography (Internationales Institut für Sozio-Bibliographie), followed in 1908 by the International Institute for

<sup>1</sup> The German Society for Documentation, which was at the forefront of defining documentation, did not eliminate the term *collecting* from its definition until 1954. The organization replaced the term with the term *exploitation* and the phrase “provision of documents of all kinds informing about the state of knowledge and experience.”

Technological Bibliography (Internationales Institut für Techno-Bibliographie, or IITB). In 1910 he founded the Institute for Medical Bibliography and the Institute for Legal Bibliography. The services of the IITB comprised the compilation of bibliographies; a periodical awareness service; *Technische Auskunft*, with abstracts in four languages (English, French, Russian, and Italian); and the provision of articles and translations. In 1912 Beck proposed to the Ministry of Culture the establishment of a German Archive for the World's Literature (Deutsches Archiv der Weltliteratur), incorporating the four existing institutes and extending their activities to all sciences. In the financial plan for the archive he proposed to raise public and private capital. The International Institute for Technological Bibliography was already supported by persons of great importance from science and technology and by technical associations and industrial companies. The Prussian government flatly refused to support this plan. There was no national culture and science policy in imperial Germany. The background to this refusal was that Beck was the editor of a documentation source for the social sciences, *Bibliographie der Sozialwissenschaften: Internationale Dokumentation der Buch- und Zeitschriftenliteratur des Gesamtgebietes der Sozialwissenschaften* (Bibliography of the social sciences: International documentation of books and journal articles for all areas of the social sciences). At first this was a supplement of the *Kritische Blätter für die gesamten Sozialwissenschaften*, but it was later an independent publication. Members of the advisory board of the royal library formulated remarkable arguments for their refusal to support Beck's proposal. They noted, for example, "the upwelling of a radical and socialist tendency . . . In general, Dr. Beck's intentions of mechanizing bibliographic work and producing scientific scholarly bibliographies in a factory-like manner are subject to strong reservations" (Behrends, 1995, pp. 25–28).

Presumably, the main reason for their refusal to support Beck's proposal was their belief that in the long run the planned universal archive was not feasible because sufficient public funds could not be guaranteed for a longer period and for a single central organization. La Fontaine and Otlet's plans for a universal bibliographic repertory or catalog had already met similar objections, and not without reason. The social and political reasons given are not surprising either, as social democratic tendencies were considered intolerable by the Prussian state. What was new in their argumentation was their expression of dislike for "factory-like," that is,

"mechanical" production of bibliographies (Behrends, 1995). The Royal Librarians in the early twentieth century, generally humanities scholars, had ignored the fact that as early as the nineteenth century the well-known Swiss cultural scholar Jacob Burckhardt had welcomed the upcoming mechanization, which in his opinion would reserve time for substantial spiritual work. This idea was not likely to be accepted in Germany at that time, and in fact the Royal Librarians' arguments continued until long after World War II.

Since the end of the nineteenth century technical libraries had been created in private industrial companies and by technical associations because the traditional general and university libraries in Germany could not cope with the demand for technical literature and the rapidly developing industrial information needs. Bibliographic and documentation activities were supported at this time not primarily by the well-established libraries but rather by industry libraries and the technical associations of engineers and others, such as the German Chemical Society (Deutsche Chemische Gesellschaft, founded in 1867), the Association of German Engineers (Verein Deutscher Ingenieure, founded in 1856), and the Association of Iron Workers (Verein Deutscher Eisenhüttenleute, founded in 1880). In 1916 the abstracting service *Technical Journals Review* (*Technische Zeitschriftenschau*) of the Association of German Engineers already included, among others, fifty-eight American, forty-seven English, and thirty-nine French journals. This example suggests the difference between these early scientific and technical documentation services and the bibliographic compilations of the traditional general and university librarians in Germany. The aim was not to restrict the work to the creation and compilation of catalogs of documents and where to find them. The aim of these activities was what is called "technology transfer" today—the provision and exchange of knowledge and information within the scientific and technical communities across national borders. Subject catalogs, primarily based on their own classification systems, played an important role. Two important libraries—Bergbau-Bücherei and VDEh-Bücherei—used the Dezimal Klassifikation (DK) and played an important role in its further elaboration (Behrends, 1995, p. 51).

Another example at this time of activities in information exchange and international cooperation is the foundation of the "Brücke" (Bridge) in 1911 by the German chemist Wilhelm Ostwald (Hapke, 1999).

## Between the Wars

In the years between the two world wars documentation activities continued to develop mostly in industrial companies, for example, in the chemical (Hoechst AG, Boehringer Ingelheim KG, Behringwerke, and Schering AG), aircraft (Dornier GmbH), mechanical engineering (Mannesmann DEMAG AG, SKET Maschinen- und Anlagenbau AG, and Maschinenfabrik Augsburg-Nürnberg), and electrical engineering (AEG and Siemens) industries and within industrial associations. These activities were characterized by decentralization and specialization.

At this time individuals were the main promoters of bibliographic initiatives. There was no hope of getting support for documentation from the government of the Reich. Such support had practically ceased to exist. The only bright spot in those years in the traditional library was an office for the documentation of technical-scientific publications founded in 1932 by Albert Predeek (1883–1956), at the University of Technology in Berlin (Fabian, 1972). Predeek was director of the university library from 1929 until 1945. He had followed developments in England and the United States (Predeek, 1930, 1933, 1947) and recognized that bibliographies were not sufficient to satisfy the information needs of scientists and engineers. He founded a documentation center within the library, the Informationsstelle für technisches Schrifttum (Information Office for Technical Publications), which produced and provided information and documentation services for industry, first in the fields of electrical engineering, welding engineering, and machine tools and later in military technology. Predeek was convinced that successful documentation and information services could only be based on a well-equipped library and skilled personnel. The information searches were performed by “literature engineers” who had to have profound knowledge in their field and additional knowledge of languages, bibliographic work, and literature. They also translated from seven languages, including Russian and Japanese. The services were paid for by the industrial customers. Not until 1939 did the German government begin to support the center by financing some staff (Behrends, 1995, p. 160). Until the library was destroyed in World War II, it was the leading technical library and documentation center in Germany, with 250,000 volumes and a complete collection of German patent documents.

The stage for more general support for documenta-

tion was set in 1927 in cooperation with the German Standards Committee (Deutscher Normenausschuss, or DNA) and the library system. La Fontaine and Otlet had postulated information exchange and cooperation on a national and an international basis, but that was an illusion as long as no generally accepted standards existed. The DNA, which had been founded in 1917 during World War I to standardize arms and weapons, was a suitable partner for the development of standards for national and international exchange. By 1927 the DNA had already established sixty-eight Special Standard Committees. On 8 September 1927 the foundation of the Special Standard Committee for Librarianship took place (Fachnormenausschuss [FNA] für Bibliothekswesen). Participating in the inaugural meeting were librarians and representatives from the publishers' association; the state printing office; the Reichskuratorium für Wirtschaftlichkeit, a kind of bureau for economic efficiency; and scientific and technical associations. In 1929 the FNA was renamed the Special Standards Committee for Librarianship, Books, and Periodicals (Fachnormenausschuss für Bibliotheks-, Buch- und Zeitschriftenwesen). It became the platform for the development of standards for libraries and book and journal trades and was the responsible center for all aspects of documentation in Germany in the 1930s (Buder, 1976).

In 1929 the DNA established four committees: blanks, or forms, for libraries, a purely library-oriented subject; magazine formats, a topic in which the scientific and technical societies as editors of journals and magazines and the publishers were interested; magazine structure and organization, chaired by Fritz Prinzhorn, director of the University Library Leipzig—a committee that developed a standard for the so-called *Inhaltsfahne*, a documentation page with abstracts of all the articles in the corresponding issue of the magazine; and classification. The committee for classification was the most active and successful. Carl Walther, a librarian, was appointed its chief and was in charge for thirty years. In 1926 Julius Hanauer, director of the information unit of the AEG company in Berlin, was the first German to support strongly the idea of the Universal Decimal Classification of the Institut International de Bibliographie in Brussels (Hapke, 1999). In 1932 the FNA committee delivered a short version of the expanded French *classification décimale universelle* in German, which was accepted by the Classification Committee of what had by then become the Institut International de

Documentation as the standard from which translations into other languages should be made. The first part of the German comprehensive edition (*Deutsche Gesamtausgabe*) was delivered in 1934, with the last one in 1954.<sup>2</sup>

The reason for the German preference for a universal classification, the decimal classification system, may be found in the fact that in multilingual Europe (and beyond, of course) such a system offered Germany, as a highly developed and export-oriented country, the possibility of evading language problems at least in part. The pressure exerted by the special libraries, which often also functioned as documentation offices, contributed to this attitude. But the use of the decimal classification system was problematic. It had to be continually revised, upgraded, and extended to avoid obsolescence. To cope with this requirement through international cooperation is difficult, if not impossible, but for nearly twenty years documentation in Germany was closely connected to the DK decimal classification system (Gentzsch & Fill, 1960; Fill, 1981). Some documentalists argued that successful documentation work must be based on the DK. This view produced the effect that librarians of general libraries, who had a background in humanities and mostly were against the application of the DK, disapproved of documentation in general.

The result was a library system divided in two. On the one hand were the general libraries of a conservative nature, their directors mostly humanities scholars who had the greatest say in library politics. On the other hand was a growing number of special libraries, above all in business and industry but also in technical schools and universities, that pragmatically registered in their collections any printed texts, whether they were books, journals, laboratory notes, or other documents. These special libraries, as opposed to the general libraries, were interested in documentation techniques. They strongly supported classification and mechanization activities. They were not places of mere theory; rather they engaged in "pragmatic work," as opposed to some experts in the

documentation movement, especially in the FNA, who favored general conceptual and methodological work.

The term *documentation*, coined by Paul Otlet as early as 1903 (Rayward, 1997), came into general use in the 1930s in Germany. It was used to describe information activities that went beyond the compilation of bibliographies in order to meet the information needs of scientists and engineers. At the 1931 conference of the Institut International de Bibliographie the organization's name was changed to Institut International de Documentation. Hugo Krüss (1879–1945), a German, was elected vice president of the institute. German librarians were active members in various committees of the organization, for example, in the International Classification Commission (Carl Walther<sup>3</sup>), in the commission of special libraries (Maximilian Pflücke<sup>4</sup> and Albert Predeek), and in the commission for technical aids for documentation (Walter Schürmeyer). In 1934 the FNA was appointed the Central Office for Documentation (Zentralstelle für die Gemeinschaftsarbeit auf dem Gebiet der Dokumentation) and German representative in international negotiations by the political authorities.

In August 1937 the World Congress of Universal Documentation took place in Paris (Rayward, 1983). An international documentation committee consisting of sixteen members, including Krüss<sup>5</sup> from Germany, organized the congress. Krüss was not only the general director of the Prussian State Library at that time but also chairman of the FNA. Thirty states were represented by official delegations and fifteen more by congress participants. His speech, "How We Dominate Knowledge" (1937), attracted considerable interest. He stated that documentation requires a logical and up-to-date development and extension of the tasks that in the past had been fulfilled by libraries, archives, and similar institutions along with bibliographers in their fields of interest.

The 1930s gradually gave rise to a new philosophy in the documentation movement. The opportunities for multiplying and distributing documents (photographs, films, photocopies, and television) improved enormously.

<sup>2</sup> Actually a new project to translate the Dewey Decimal Classification system into German began in 2002 (Gödert, 2002).

<sup>3</sup> Carl Walther (1877–1960) was director of the University Library of the Technical University, Aachen, and the main creator of the German version of the decimal classification system. He was chairman of the committee for classification of the FNA from 1927 to 1956.

<sup>4</sup> Maximilian Pflücke (1889–1965) was a chemist and physicist. From 1923 to 1958 he was editor of the *Chemisches Zentralblatt* and from 1947 editor of the *Technisches Zentralblatt*. From 1956 to 1958 he was director of the Institute for Documentation of the Berlin Academy of Science (GDR) and from 1949 professor of documentation at Humboldt University in Berlin.

<sup>5</sup> Hugo Andres Krüss had studied mathematics, physics, and chemistry before becoming a librarian. From 1907 to 1925 he worked at the Prussian Ministry for Culture and was involved in the establishment of the Kaiser Wilhelm Society (Kaiser-Wilhelm-Gesellschaft) and the German Science Foundation (Notgemeinschaft der Deutschen Wissenschaft). From 1925 to 1945 he was director general of the Prussian State Library in Berlin, which became the most important library in Germany during his management period. From 1927 to 1945 he was also chairman of the Standardization Committee for Books, Librarianship, and Journals. In 1945 he took his own life.

The ideas of theorists now began to approach reality. This early optimism is reflected in Walter Schürmeyer's (1935) visionary view of future developments, a concept of the future as described by Paul Otlet. Schürmeyer (1889–1976),<sup>6</sup> director of the Library for Art and Technology (Bibliothek für Kunst und Technik) in Frankfurt am Main, had a vision, similar to Otlet's, of a new form of organization in which libraries and documentation did not merely coexist; rather they would coalesce. The library would thus become a new kind of organization for the management and transmission of information. Schürmeyer, however, also believed that librarians had a narrow view of what documentation was, and so they could not see how it was relevant to them and therefore dismissed it.

The development of documentation in the Germany of the 1930s, after the world economic crisis, was powered first by industry, which gradually started expanding again and needed the exchange of knowledge, and later by the National Socialists. In the beginning the government of the Reich was not interested in documentation, but the German preparations for the forthcoming war and the four-year plan (1936–1939) made it relevant (Buder, 1976). As mentioned above, in 1934 the FNA was made the central office for documentation in accordance with the Ministry of Science and National Education (Reichsministerium für Wissenschaft, Erziehung und Volksbildung) in order to represent Germany in the Institut International de Documentation.

The Third Reich and World War II also brought considerable restrictions and a temporary interruption of the work of the VDB. In 1935 the government official for the librarianship department of the Ministry for Education, Rudolf Kummer, put the association under pressure to elect Georg Leyh (1877–1968)<sup>7</sup> as president. During the 1930s several lectures on documentation tasks and methods were given at the annual meetings of the association (Hundhausen, 2000).<sup>8</sup> While the Royal Librarians had been afraid of mechanization and private employers, who would have been beyond their influence, documentation was now faced with their cultural arro-

gance. Leyh provides a good example of this attitude when he said: "When they (the documentalists) refrain from making a clear distinction between documentation and intellectual work, then we, the librarians, will clearly state that there is no room for documentation in the humanistic disciplines. [Documentation] may be of legitimate use in industrial business, for patent lawyers . . . but it is without relevance for the traditional libraries" (Leyh, 1937, p. 528). Leyh was not the only librarian to denounce documentalists loudly. At the Fifteenth Congress of the International Federation for Information and Documentation in Zurich, Switzerland, in 1939, shortly before the beginning of the war, one of the main topics was the relationship between libraries and documentation. Five librarians from five countries presented their views. Sven Dahl, a Dane, warned his audience against developing documentation into a supply of predigested material that would save laborious work but destroy inspiration (Fabian, 1972). However, he also went into detail, mocking the sectarian fanaticism of some documentalists who were hunting utopian ideas, a sideswipe at the decimal classification system supported by many documentalists.

There were also critical voices from the documentalists' camp. Maximilian Pflücke, at that time editor-in-chief of the world-renowned *Chemisches Zentralblatt* and after the war a professor and National Prize winner in the German Democratic Republic, said: "In their theoretical deliberations, some fanatics of documentation do not pursue documentation but the philosophy of documentation, and they would rather capture a thought for registration as soon as it forms in the cells of their brains, so that you'd be afraid the initial spiritual spark might only reluctantly be willing to appear on the public stage in view of all the documentary straitjackets it is going to encounter" (Pflücke, 1937, p. 955). And Albert Predeek, the director of the documentation office of the University of Technology in Berlin, deemed it unnecessary to develop a theory and technique of documentation because it would be sufficient to gain experience through practical work in order to cope with the requirements of

<sup>6</sup> Walter Schürmeyer was a German pioneer in photographic techniques for the duplication of library materials and the introduction of microfilms for storage and documentation in libraries. Because he was married to a Jewish woman, he was forced from his position in 1937 by the Nazi regime. He was one of the central figures involved in the re-foundation of the DGD in 1948 and was from 1948 to 1951 its first president. From 1954 to 1964 he was vice president of the FID.

<sup>7</sup> Georg Leyh was a famous librarian. He was the editor of the *Handbook of Library Sciences* (Handbuch der Bibliothekswissenschaft) and director of the university library in Tübingen from 1921 to 1947.

<sup>8</sup> At the 31st Annual Meeting of German librarians in 1935 in Tübingen, Walter Schürmeyer gave a talk on function and methods of documentation ("Aufgaben und Methoden der Dokumentation"). At the 32nd Annual Meeting in 1936 in Dresden, Albert Predeek gave a talk on documentation ("Dokumentation"). At the 34th Annual Meeting in 1938 in Passau, Fritz Prinzhorn gave a talk on documentation ("Dokumentationswesen") and Schürmeyer on the use of 35-millimeter films and reading devices.

the time (Seeger, 1977). Predeek offered the following definition of documentation, which was an elaboration of Schürmeyer's definition (Schürmeyer, 1935, pp. 536, 539): "Documentation is not a repertory, in which one finds well arranged everything that was known in relation to a given term up to yesterday, but the ability to give a reference, to prove, to back up, to document a given problem." In other words, documentation is the ability to solve a given information problem by using all kinds of unfamiliar information sources. Predeek stated that at least two characteristics make "information and documentation" different from a "library": the specific user-oriented subject indexing and the fact that the referenced documents may not belong to the holdings of the institution.

## World War II

From 1940 on, Predeek's Informationsstelle of the University of Technology in Berlin, in association with the information center of the Hamburger Welt-Wirtschafts-Institut (World Economy Institute), created an Office for the Analysis and Evaluation of the World's Technical and Economic Trade Press (Auswertungsstelle der technischen und wissenschaftlichen Weltfachpresse, or TWWA). This office developed a periodical abstracting service, mainly for the military and related industries but also for scientific institutions. From March 1942 to November 1944 fifty-two issues of this service with more than 52,917 abstracts reached about a thousand subscribers. Nevertheless, the chaotic research and economic policy of the Nazi government was detrimental to effective documentary activities in that it pitted individuals or institutions against one another (Behrends, 1995).

The foundation of the Deutsche Gesellschaft für Dokumentation (DGD; German Society for Documentation) in 1941, however, has to be considered a success. Politically motivated and forced through, it was a point of crystallization for the documentation movement (Samulowitz, 1998). Central offices develop an organizational framework if urgent actions are needed for the solution of problems. Such a central office was missing in Germany, although the requirements for one were enormous. The FNA, primarily a standardization institution, could not cope with such requirements. It had to coordinate the activities of libraries, special libraries, and archives without having the necessary authority, financial basis, or personnel. Moreover, the range of tasks in the increasingly varied information and documentation scene required a professional association, without

which successful professional development is hardly possible. Above all, the Nazi government, threatened with the possibility of being cut off from the supply of important foreign literature, needed a "command center" to secure the documentation necessary for the wartime economy. The vehicle for a coordinated procurement with these information sources and their distribution within Germany was to become the DGD, or more exactly the approximately thirty members of the extended advisory board of the society.

The DGD was founded on 28 May 1941, initiated by the minister of science and national education, Bernhard Rust, and the FNA. The articles of association had been worked out by Maximilian Pflücke and Fritz Prinzhorn, who became the first chairman of the DGD. The DGD was founded as a scientific association for documentary research and for the organization of documentation. Other aims were to solve domain-specific documentation problems in cooperation with other professional associations and to develop and promote new technical and working methods for documentation (Prinzhorn, 1935).

The DGD with its advisers distributed all over Germany had to be seen as the only appropriate organizational solution at the time. The establishment of a properly organized central office in wartime was not feasible, as it would have been too time consuming and required too much effort. It was possibly also realized that an already highly differentiated system of documentation activities in industry, political institutions, and libraries could not simply be steered and commanded by a politically imposed central office. What was required was a group of leading persons representing the most important activities and institutions in the field. But from today's perspective it cannot be proved that this was the reason for the foundation of the DGD (Samulowitz, 2000).

The DGD organized a meeting in Salzburg from 21 to 24 September 1942 to discuss "Issues of Documentation." The seventeen talks given at the conference were about archives, museums, photo and film collections, domain-oriented documentation, and photographic techniques for documentation (Pietsch, 1975). From December 1943 on, the DGD published some issues of an information service on foreign literature (*Zentralnachweis für ausländische Literatur*). This was a central activity of the DGD for the benefit of the scientific institutions and the industry in Germany during the war.

## The Immediate Postwar Period and the Reactivation of the DGD

After World War II the documentation movement in Germany took some years before it was able to reorganize. As Germany was governed by occupational powers from 1945 to 1948, the possibilities for reorganization were limited to individual regions. However, in December 1948 former foundation members succeeded in reactivating the DGD as an all-embracing movement of German documentation. In the beginning it seemed likely to become a promising cooperation between librarians and documentalists. The foundation assembly for the reactivation of the DGD, which met in Cologne on a ship on the Rhine, was not only attended by documentalists but also by representatives of the Library Association of North Rhine-Westphalia (Verband der Bibliotheken des Landes Nordrhein-Westfalen), founded in 1948; the Working Group of Technical-Scientific Libraries (Arbeitsgemeinschaft der Technisch-wissenschaftlichen Bibliotheken, later Arbeitsgemeinschaft der Spezialbibliotheken, or Working Group of Special Libraries); and the Association of German Archivists (Verein Deutscher Archivare). Walter Schürmeyer was appointed the first president. He was an expert in reprography, which was vital for the work of the DGD in the first years.

The “reactivated” DGD was far from being a homogeneous association. Many interests and views, partly contradictory, had gathered under its roof, including documentation services from industry (there were many of them, although they were unaware of one another), public authorities, politics, abstracting services, publishing companies, and photography, as well as librarians, scientists, and experts on rationalization. What kept the members together may be described as a common awareness of some kind of deficiency and the desire to find methods to overcome it (Gulich, 1953).

It was a new start only in a material sense. The objectives of the DGD mainly originated during the war or prewar period. One such was its claim of being the *Zentralstelle* (central office) for the entire documentation system in Germany, responsible for research and vocational training. The DGD’s often emphatic support of the decimal classification system continued to find

disfavor among librarians, along with its claim to be a learned society. (The professional association, the Association of German Documentalists, was founded later, in 1961.) The leadership of the DGD was aware of these tensions. Its first director, Hans-Karl Soeken, clearly said so in an essay on the state and tasks of documentation in Germany: “It is correct, indeed, that we were able to do everything new in Germany, but we did not have the necessary funding nor the fruitful exchange of experience with foreign countries to exert a widespread effect on new working methods and technical development. The old instructions and regulations have, therefore, been stronger than the new, still unknown methods and techniques of documentation” (Soeken, 1951, p. 29).

The situation at the beginning was difficult for the DGD. There was no omnipotent Reich government, nor did any high Reich authority support them. The federal government considered documentation a minor problem at that time. The Prussian State Library, the largest library in prewar Germany whose general director, Hugo Krüss, had been some kind of founding father of documentation, did not exist anymore. Above all there was no major funding for the foreseeable future. The DGD had to be founded as a registered association without funding, that is, as a private association dependent on occasional, uncertain financial support apart from the low membership fees. Despite all its plans and ideas the DGD faced an insoluble dilemma: the statute with its comprehensive statement of tasks for the DGD as a quasi-center and the financial situation of the society could not be reconciled. The crucial promotion by the Board of Trustees for the Rationalization of the German Economy (Rationalisierungskuratorium der Deutschen Wirtschaft),<sup>9</sup> and thus indirectly by the Federal Ministry for Economic Affairs, was not a continuous solution. Neither were the occasional subsidies and advertising orders from industry. Constant and lasting financial support had to be found. As early as 1957 the chairman of the DGD recognized that funding at a national level by public authorities was necessary. Later, in 1974, Helmut Arntz<sup>10</sup> concluded that “up to 1960 the wheel of documentation turned only in the circle of a few utopians, who predicted its national importance” (1975, p. 35).

In 1945 the situation, although precarious, was

<sup>9</sup> The Board of Trustees had been set up in 1921 to improve the efficiency of the German economy and is still active.

<sup>10</sup> As an expert in reprography Helmut Arntz was one of the central figures involved in the re-foundation of the DGD in 1948. From 1961 to 1972 he was president of the DGD; from 1969 to 1975 he was also president of the International Council for Reprography and from 1972 to 1980 president of the FID.

much more favorable for libraries. The core of many libraries had been partly destroyed by bombs. The stock had been reduced to one third of that of prewar times, many buildings lay in ruins, and catalogs were destroyed. But public funding by the federal government, the governments of the Laender, and municipalities was secure. The libraries also received indirect support (and planning) from the German Research Foundation (Deutsche Forschungsgemeinschaft) and its library department and committee. But there was one thing libraries and documentation had in common: they lacked new ideas and stimulation owing to the isolation caused by the Nazi dictatorship from 1933 to 1945 (Busse & Horst, 1968).

It was not a good starting position, with the libraries financially secure and the documentation system a poor underdog, without money but pretending to have equal rights and facing great difficulties in enforcing its ideas. This situation led from time to time to some virulent reactions from the documentalists. Erich Pietsch, chairman of the DGD from 1955 to 1961, was the first to raise awareness of the new and still untried mechanized methods and techniques for documentation in Germany (Pietsch, 1952, 1967; Hapke, 2004). Being director of the Gmelin Institute in the Max Planck Society, he was extraordinarily familiar with chemical documentation, and he had had the painful experience of establishing documentation services during the war. It is to his credit that modern methods of documentation were introduced in Germany. He strongly supported automation, that is, "mechanization." The striking thing about his term of office as president and chairman of the advisory board of the DGD is that it coincides with the most vehement controversies between librarians and documentalists. Mere coincidence? Rather improbable, as Pietsch incessantly propagated new methods and often encountered substantial resistance, though his ideas were often backed by the library committee of the German Research Foundation.

Otto Frank has described the atmosphere that reigned between the conflicting parties: The methods of documentation do not contain anything innately hostile to culture. In recent congresses of neighboring professions, it was often postulated that supporting documentation according to the American example and through the methods developed there would encourage the dull mechanization of our European culture, or that the methods of modern documentation could only be of limited

or no use to ways of working in the arts, but we must comment that humanities scholars, like any other intellectually active, working, creative human being, will be supported by the new methods of working to cope with a constantly growing amount of literature. (Frank, 1953, p. 137)

In his incomparable way Hanns W. Eppelsheimer (1954) explained a year later why he considered documentation to be "hostile to culture" and what he thought the attitude to documentation should be. To him "Brother Documentalist" was seen as a careless and unreliable sort, not to be taken seriously, who claimed for himself the same rights as did the venerable library system and who "had not been engendered in the mythical twilight of Babylon, but in the bright American daylight" (p. 4). A documentalist was someone who thought he could set the world to rights, who, when given the power, would be utterly ruthless. Those who think they can set the world to rights foresee the new world of European-American civilization, the vehement mechanization of this world; they are "in the vanguard of rational civilization" (p. 5). Eppelsheimer insisted on the priority of the humanistic disciplines in order to "defend the dwindling individuality of servants of the sciences" (p. 13). He rejected the decimal classification for the humanities as a typical product of rational civilization. But he had to admit that the "original library methods used in documentation were being handled in a new spirit and that a documentation office would become something different from a library, perhaps something completely new" (p. 11). That sounded like a farewell to the traditional library system. As lecturer at the University of Mainz in 1946 and 1947 Eppelsheimer espoused the ideas and principles of documentation in the spirit of Predeek. He was aware that the traditional bibliographic work of the librarians would never cope with the information needs of the scientific and technical communities (Eppelsheimer, 1950). His positive attitude toward documentation allowed him to accept the position of president of the DGD in 1951. Eppelsheimer spoke up for the joint creation of a central clearinghouse by librarians and documentalists and for a close cooperation of both.

Germany, which had always been structured as a federation, had never possessed *one* librarianship center. In the 1930s there was a tendency to regard the Prussian State Library in Berlin as a "Library of the Reich" and to regard the center for librarianship, which had been

created within the library by its director, Hugo Krüss, as a national center. But this idea was resolved at the end of the war with the destruction of the Prussian State Library. Bombs destroyed the building, and many staff members either were killed or fled. However, many rare books and journals had already been removed to about twenty external sites. Some of them in the eastern part of the “Reich” were no longer accessible after the war. In 1953 Eppelsheimer attempted to establish a German Center for Scientific Documentation within the German National Library (Deutsche Bibliothek) in Frankfurt am Main in order to bring the libraries and documentation together in one common center, but the attempt failed because the necessary political support could not be obtained and financing by industry could not be assured.

Eppelsheimer’s analysis of the documentation movement—biting and to the point—was of special importance because at that time he was the general director of the German National Library, the West-German Archive Library for German Literature, and—most curiously—the former president (1951 to 1955) of the German Society for Documentation. He had initiated the establishment of the German Library, which accounts for the location of the registered office of the DGD in Frankfurt am Main. He recognized the complexity of the orientations that were involved in librarianship on the one hand and documentation on the other and tried to balance the interests of traditional general and academic librarians with the need for documentation activities. His statements gained additional weight because his essay (1954) was the first to appear in the first edition of *Zeitschrift für Bibliothekswesen und Bibliographie* (Journal for librarianship and bibliography), the central library organ of the librarians in West Germany, and sounded what was more or less the dominant theme of that issue.

In their journal *Nachrichten für Dokumentation*<sup>11</sup> the documentalists reacted immediately to this publication. Karl Fill, secretary of the DGD, argued in favor of stricter and more extensive documentation to comply with users’ interests as opposed to libraries, which focused on collection and conservation. However, Fill’s defense of the Universal Decimal Classification turned out to be rather moderate (1954). The uneasy relationship that existed at roughly this time between librarianship and

documentation even struck the South African librarian Otto Spohr (1961) while he was traveling in Germany: “Mistrust still prevails here. Mutual acceptance is still missing” (p. 228).

### The 1960s and 1970s

This controversy shows clearly how the climate between librarians and documentalists was characterized by uncertainty and mutual distrust. This mistrust induced some librarians of scholarly provenance to look on documentation as merely a technical discipline. The guidelines for the higher and senior civil services in scientific libraries do not even mention practical training for documentation (Jochum, 2000). In theoretical training documentation ranges somewhere between library administration, library use, and catalog science. And in 1975 the questionnaire used to collect the dates for the official German library statistics (Deutsche Bibliotheksstatistik) still classified documentalists among administrative personnel and such technical personnel as printers, bookbinders, and photographers (Samulowitz, 1993).

One more widely noted controversy should be mentioned here. On 17 December 1974 the federal government adopted the “Program of the Federal Government for the Promotion of Information and Documentation (I&D Program) 1974–1977 (Bundesministerium für Forschung und Technologie, 1975).” It included the idea of restructuring about 650 diverse public information and documentation agencies by creating 16 coordinating centers for specialized information, 4 problem-oriented information agencies, and an action program. Its aim was as simple as it was complex: it was to cope with the growing volume of knowledge and the need for information in modern society, that is, to establish better access to information of all kinds. The project was very ambitious as regards structure and subject, but because of the evolving networks and on-line services the centralized technical concepts were already outdated when the concrete planning began.

No doubts were left as to cooperation with libraries. The National Library in Frankfurt am Main, the Prussian State Library in Berlin, and the four existing central special-subject libraries were mentioned in the I&D Program as responsible for the national bibliography and as supra-regional supply centers for the

<sup>11</sup> At that time the subtitle of *Nachrichten für Dokumentation* was “Korrespondenzblatt für die Technik und Wissenschaft, Wirtschaft und Verwaltung” (Corresponding journal for science and technology, business and administration).

documents identified from the documentation databases. The Bibliotheksplan '73, a conception for the organization of a library network in the Federal Republic of Germany, but without any associated financial plan, had been accepted. The support of the special libraries was stressed, but librarians felt they had not been properly involved in preparations and planning. The preparatory team of the I&D Program certainly had a vision of a closer cooperation and even a kind of merger between the I&D sector and the library sector, but the actors in the field did not share such a vision. Indeed, the librarians formulated many reasonable arguments against the plan. They were skeptical, for example, about the feasibility and funding of the program. They had strong doubts about the need for a special center for information dedicated to the arts and humanities, and they predicted that the program would cause redundant work. During the planning phase the members of the arts and humanities planning group also took the view that all scholarly work in their fields *is* information and documentation work, for example, compiling bibliographies, creating catalogs of archaeological objects, or exploiting and evaluating all kinds of information sources. But most librarians working away in libraries did not take much notice of the program.

Against the rather benevolent criticism of librarians who argued in favor of the documentation system proposed in the I&D Program (Gattermann, 1975; Jammers, 1975), Ernst Lutterbeck clearly presented the viewpoint of documentalists: "Perhaps it is not the achievement of the I&D Program that it succeeded in making librarians aware of the importance of information and documentation (I&D). Perhaps some justified criticism would not even have been possible . . . if the librarians had realized earlier that there was no ugly parvenu growing up beside them . . . but that I&D has to be regarded as an urgently necessary complement to traditional librarian services." Lutterbeck also complained about the fact that "some Laender (i.e., above all some Ministries of Education and the Arts) had practically ignored the necessity and existence of I&D *before* the publication of the I&D Program" (Lutterbeck, 1976, p. 227).

But gradually the controversy subsided. In 1961 the documentation movement received a center of its own, the Institute for Documentation (Institut für Dokumentationswesen) in Frankfurt am Main. Although the center was insufficient, it was recognized *cum grano salis* by the government. In 1966 the DGD was accepted for

funding support by the federal government. However, as the documentation movement was finally being appreciated, the DGD was drawing to a close as a quasi "spearhead" of documentation in Germany. There was no mutual acceptance, as claimed by Spohr, but the antagonistic "sisters" had arrived at a mutual respect, and the contact between the adversaries avoided shrill tones. In 1974 the president of the DGD and officer of the Federal Ministry of the Interior, Ernst Lutterbeck, initiated the foundation of a roundtable for archives, libraries, and documentation called the ABD-Kreis.

The University Framework Statute (*Hochschulrahmengesetz*), drafted at the beginning of the 1970s, which provided for common studies for librarians and documentalists, furthered such contacts. The German Research Foundation also no longer dealt with the dispute over the principal differences between librarian and documentalist work, "as the two partners have long since met in their practical work and have experienced how their activities diverge from a common basis but always remain related to each other" (Busse & Horst, 1968, p. 221). Georg Kaltwasser was not so optimistic in 1977, but he did concede that there was much talk about the necessity for cooperation between librarians and documentalists, which "sometimes even worked" (Kaltwasser, 1977, p. 38).

The controversy between librarians and documentalists gradually came to an end but not because controversial problems had been solved. Databases produced in growing numbers by private hosts began to appear in the information system. The state withdrew from organizing the documentation system. Mechanization entered the libraries; databases were used to provide information, and library journals published essays that previously would have appeared only in documentation journals. In the 1970s the compound "information and documentation" appears. Later this is combined in *Fachinformation* (special information), sometimes even *Fachkommunikation* (special communication), while *documentation* as a term is no longer frequently used.

The antipathy that reigned between librarians and documentalists, however, did not cease. In 1984 Hartwig Lohse cites a judgment pronounced by librarians that "special information . . . *cum grano salis*, is nothing but special bibliography, only done on a much faster medium and perhaps combined with possibilities for searching" (Lohse, 1984, p. 459). In 1986 Norbert Henrichs stated that the relationship between librarians and documentation "is still polluted by uncertainties and mutual

distrust and suspicion” (p. 127). “Great Western Schism” (Kuhlen, 2002), with its reference to the fourteenth-century division among the churches of western Christianity, suggests the ineradicable resistance to “mechanization.”

### Recent Changes

Apart from personal reasons (e.g., careers and privileges), there are many answers to the question of how the German conflict between the library and the documentation systems—sometimes fought with bitterness and arrogance—came about, especially in the period from 1948 to the end of the 1960s. The most striking aspect is the stubborn resistance of librarians in traditional general libraries to the natural sciences and technology, which is reflected in their lack of interest in the mechanization of information. Their resistance is also characterized by the fear of losing individuality and manifested through their condemnation of mechanization as a trivial American product that had to be fought by librarians in order to rescue the humanistic disciplines. For a long time general libraries, as an institution, had looked on information only from the point of view of the offering party, not from the perspective of the users, an aspect the libraries that specialized in scientific-technical issues had recognized long before. Nowadays nobody blames the libraries for not having recognized at the time the power of the modern methods that were emerging before World War II and that had utopian features. What is difficult to understand is their inability to see the changing requirements of industry, to learn from the experience of the specialized libraries, to sense dissatisfaction, and to detect from the utopian ideas that something was on the move. The decimal classification system, however useless it might have been to the arts and humanities disciplines, was a visible attempt to organize the exchange of information across borders. The negative influence exerted by such important librarians as Leyh and Eppelsheimer has not remained without impact. For the two adversaries—libraries and documentation—the diverging modes of funding in federal Germany were a major disadvantage: the libraries were subsidized by the Laender, while documentation and the central specialized libraries were subsidized by the federal government.

In 1978 the German Libraries Institute—(Deutsches Bibliotheksinstitut, or DBI) was founded by amalgamating two former institutes—that is, the Office for Library Services and the Office for Library Technology.

The history of the institute thus goes back to 1958. When the Laender governments and the federal government created the institute, they aimed at fashioning a joint service and developing a center that would overcome the negative consequences of the federal structure of Germany. An advisory council, representing all types of libraries, ensured that the institute operated in a fair way, allowing for the widest range of specialist and technical input from all concerned with German librarianship and taking into account the matter of political compromise in its discussions and activities. The DBI was enlarged after reunification, enabling it to meet the increased demands in tasks, responsibilities, and provision put on it. At that time the DBI had a staff of some 120 members and an annual budget of DM 13 million. Both figures, however, have declined steadily since 1992.

The DBI ran a number of standing committees and working groups with professional membership from outside the institute. These groups were to guarantee current contact to practical library work and to professionals in other fields outside the narrow library profession. Staff members were computer specialists in hardware and software, engineers, librarians, and administration specialists. In 2000 the DBI was closed. Most of the activities ceased, although some are now contracted to specific libraries, for example, the State Library in Berlin. The public did not take much notice. Support from documentalists or their associations was not apparent.

Since the late 1980s members of the DGD have been discussing the name of the association. Young professionals felt they would have better chances in the labor market if they called themselves information specialists, information engineers, information managers, or researchers rather than documentalists. Documentation was felt to be old-fashioned and too narrow. At least for younger people the wording seemed to be out-of-date. So the traditional name of Deutsche Gesellschaft für Dokumentation was changed to Deutsche Gesellschaft für Informationswissenschaft und Informationspraxis (DGI; German Society for Information Science and Practical Information Work) and the traditional journal title *Nachrichten für Dokumentation* into *Information—Wissenschaft und Praxis*.

Since its foundation in 1948 the former DGD, now DGI, has been chaired by several librarians, who always made a plea for overcoming the controversies. The current president, Gabriele Beger, who is director of the Berlin Central Library, knows both sides of the

documentation-librarianship divide. The current 1,900 members of the German documentation society—individual, corporate, and sponsoring members—all come from areas where knowledge is produced, media are researched and prepared for use, and information is obtained and transmitted to others. A dialogue on possibilities of cooperation between the DGI and the Librarians' Association is ongoing. The Union of German Library Associations (Bundesverband Deutscher Bibliotheksverbände, or BDB) was founded in 1989. In 2000 a first joint congress of the DGI and the BDB was held. A second is scheduled in 2004. In the meantime the associations are negotiating a renaming of the BDB and an alteration of the statutes and articles, so that the BDB and the DGI could together constitute a new Union of German Library and Information Associations.

What was the reason for the library-documentation controversy in Germany—and presumably only in Germany at such a level—that has led to the waste of so many resources? Why was the push of modernization, which began before World War I, not recognized at the time? It is difficult to understand why the manifestation of different information demands of users in science and industry, the experiences of the special libraries, the climate of discontent of the users with the traditional general and academic libraries, and the emergence of somewhat utopian ideas did not raise the awareness of the library community and the politicians in charge. Why did they not notice the necessity for changes? Nor were the philosophy and the aims of the decimal classification system recognized, to organize and exchange knowledge across national borders, even if it was not suitable for every domain, especially in the humanities.

Simple answers and one-dimensional explanations do not help. Least of all does the so-called two-cultures struggle (*Kampf der Kulturen*) in C. P. Snow's sense (Kreuzer, 1987) as a dispute between science and humanities, which definitely is an exaggeration and too simplistic (Bowles, 1999). There are not only many different cultures but also numerous librarians with a schol-

arly background who never had fundamental problems with innovations in information technology and belong to the pioneers in documentation in Germany. But there were also many who did not want innovation and were opposed to documentation.

It may be of some importance that Germany had never had a National Library, which could bring people with different opinions together and serve as a forum for communication and coordination within the federal state. The Prussian State Library under its director Hugo Krüss seemed to approach this function, but he never got the necessary political and financial support. After World War II a central library was not feasible, and associations took over the function of providing a communication forum.

One of the roots of the librarianship aversion to documentation probably is the fact that the documentation movement started from the Standards Institute and was seen as the application field of the decimal classification system by many librarians who disapproved of it, at least for the arts and humanities. Another problem was the compilation of bibliographies. This task was claimed by the libraries as one of their core future-oriented services. But documentalists also considered bibliographies as the first step of their services. This crossover might have made the librarians worried about their privileges.

What was the role of the special libraries, the "illegitimate children" of the libraries (Laux, 1997)? Although they felt themselves to be part of the library system, they had no political influence in the appropriate circles and no time for political engagement because they were primarily obliged to serve their patrons and often were only one-person libraries. The special libraries organized themselves as the Working Group of Technical-Scientific Libraries, which later developed into the Working Group of Special Libraries. They were very diverse, so that it was difficult to agree about politics and to find a common opinion.<sup>12</sup> The motivations that were decisive for the controversy must instead be searched for within the librarians' community. The VDB, the most

<sup>12</sup> The foundation in 1946 of the Working Group of Technical-Scientific Libraries (Arbeitsgemeinschaft der Technisch-wissenschaftlichen Bibliotheken), which later changed its name to the Working Group of Special Libraries (Arbeitsgemeinschaft der Spezialbibliotheken), was initiated by business companies and industry. In 1961 this group decided to open the association to university libraries as well. Although the members were using documentation methods, they felt it would be more appropriate to join a library federation than a documentation association. Since 1968 the Working Group of Special Libraries has been participating in the Deutsche Bibliothekskonferenz (German Roundtable of Libraries). In 1971 Paul Kaegbein, director of the Library of the Technical University, Berlin, was elected president. In 1974 the German Library Federation established its Section 5, Special Libraries, which incorporated the Working Group of Special Libraries.

important union of German libraries, held itself from its very beginning apart from other associations of related professions and claimed to represent all librarians, at least those working in scholarly and academic libraries (Eich, 2000). This association was always the academic general library. Academic librarians often had a degree in arts and humanities and tended to see themselves as academic workers. They had no understanding of the needs and information demands coming from the sciences, administration, business, and industry, but they were always concerned to ensure that their privileges were protected. A reliable witness is Eppelsheimer, who stated: "I had no choice but to become at best a librarian, and therefore I applied as an unpaid trainee in the public library of Mainz, as I was looking for a restful job with small but secure earnings, which gave me sufficient time for private undisturbed hours" (Kehr, 1990, p. 94).

Given the alternatives of education and culture on the one hand and market orientation on the other, many librarians—depending on their position—chose the first option, fully in line with what they had learned during the period of training for their career (Jochum, 1995, p. 13). The others were solidly behind special libraries or documentation. Perhaps mockers are right in saying that all those struggles had basically been useless skirmishes, while practice had already gone beyond them. The actual challenges today of digital content creation, publication, dissemination, and preservation give new opportunities and requirements for a closer cooperation between the two once-antagonistic sisters.

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