Abstracts and Indexes to Branded Full Text:
What's in a Name?

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Abstract

Abstracts and indexes were developed to improve communication by providing current awareness and retrospective searching of the primary literature in science and technology. The words in the titles of abstracts and indexes and the names of on-line and Web databases (for the years 1980 to 2002) were compared to identify changes in naming practices. In the on-line and Web environment the language used in the database names was less explicit about function and subject coverage than in the titles of print abstracts and indexes. The more recent use of acronyms and brands has made it more difficult for library users to choose an appropriate database. The changes in the titles and names inform us about the evolution of information systems from reference tools to on-line databases with additional capabilities and provide insights about marketing. They also suggest that librarians and database providers may well need to give clearer indications about the subject content and scope than is now provided in the names of databases.

Abstracting and indexing tools in science and technology were developed to provide current awareness and retrospective searching of the literature. They are part of the information transfer and communication process for scientists and engineers. Abstracts and indexes also provide intellectual access to the content of materials owned or leased by libraries. These secondary tools identify and summarize journal articles and other documents and in this way guide users to the primary literature. Abstracts and indexes were originally produced in print but are now widely available as on-line databases. They are produced by professional societies, government agencies, commercial entities, universities, and other institutions.

With the availability of full-text journals on the Web the boundary between secondary and primary information has become blurred. Primary publishers have launched their own Web sites, and some have made their journals available through various vendors. On-line journals are browsable and searchable and as such fill alerting and retrospective functions—albeit usually for a subset of the literature of a field and covering a limited time frame—that hitherto were functions of the indexing and abstracting services.

Indexes and abstracts are part of the scientific and technical communication system in the traditional Garvey-Griffith model of scientific communication and in the revised model presented by J. M. Hurd (1996, 2000), but in the newer electronic communication models Hurd proposes, indexing and abstracting services are left out. Not only is there a migration from print to on-line and a blurring of the structure of information but also, at least in certain specializations, the system of scientific communication is being transformed because scientists are able to be self-publishing (Crawford, Hurd, & Weller, 1996). Although Deborah Wiley (1994) and others have written that abstracting and indexing may become obsolete, Dennis Auld (1999), who was a director with PsycINFO and a cofounder of ABI-INFORM, wrote that he is "bullish about the future of secondary publishing," but only if certain changes are made (p. 173). He believed that secondary services could mirror the advances in the Internet.

My purpose is not to argue whether secondary services will continue indefinitely or be replaced by searchable electronic archives but rather to examine the language used in the titles and names of abstracts, indexes, and on-line databases to suggest how naming practices may affect communication with users and to see what these practices reveal about the history and heritage of sci-tech information systems. Abstracting and

indexing services were developed to improve scientific and technical communication. Early on, their names seemed to indicate clearly their subject coverage and purpose, for example, *Chemical Abstracts* (founded in 1907) and *Science Citation Index* (founded in 1961). With new aggregators of information, mergers and acquisitions of publishers, and the packaging and branding of information products, especially for the Web, some database names seem to be less informative about content or use (e.g., Ovid, HighWire, and WebSPIRS), while others may imply that they give us science itself (e.g., Web of Science, SciFinder, or ScienceDirect).

The history of abstracts and indexes is more than the history of the services themselves, their names, or the changing technologies they have employed. According to Trudi Hahn (1996), "the leaders of the online age can be divided into three groups: the developers, the managers and trainers, and the users" (p. 33). At various stages in the development of on-line systems end users and librarians provided input to managers, trainers, and sales staff. Librarians, by way of their reference and instructional programs, have served as "marketers" of information products to their users for a long time and were especially important in facilitating the adoption of on-line databases. Individual scientists tend to subscribe to only a few journals and have membership in one or two professional societies. They, students, faculty, and interested laypeople all rely on libraries to provide access to a broad range of abstracts, indexes, on-line databases, and full-text journals. Thus librarians and their institutions are an important part of the history of online systems and are today partners in presenting information about databases and full-text products via library Web sites.

Library users seem to have difficulty choosing appropriate databases when they have to select from a list on a Web page because database names may not give sufficient clues as to the database's content or purpose. It may be especially confusing for someone looking at the shortened forms of names used as Quick Links on library Web sites. Writing in *Database*, Stephen Arnold (1999) said, "individual researchers are likely to be befuddled about where to go to find what they need in the current STM [scientific, technical, medical] or scholarly data universe" (pp. 32–33). The array of names and acronyms confuses people who want to use databases; thus information transfer and communication are impeded.

The naming of secondary services is infrequently discussed in the literature and then usually only briefly. One of Hahn's (1996) interviewees, John Hancock, spoke about the naming of the information system at Batelle. Eugene Garfield (1999) briefly discussed the name changes of his early company and one of his information products. The more recent emphasis on the branding of information products has created more discussion in the literature. Specifics are usually talked about behind closed doors, but we get a glimpse of the process through the Institute of Electrical and Electronics Engineers (IEEE), for example, which established seven branding-identity working groups. Several items (editorials, president's message, and letters) were published in *IEEE Antennas and Propagation Magazine*, in June and August 1999, and in the *IEEE Technology and Society Magazine*, in the Spring 2000 issue, about the process it adopted to determine how best to brand its products. Searches of the IEEE Web site in February 2001 retrieved several additional items on its efforts at positioning and branding. It is a common experience in libraries that visiting publishers and vendors speak about the branding of their on-line and full-text databases. The concern for branding is important in any discussion of the informativeness of database names because the purpose of branding is to enhance and unify the image of an organization and broaden the market for a product rather than be specific about its subject and scope.

Methods and Materials

The language of titles, names, and brands of information products, if looked at in a collective way and over time, can inform us about the history of sci-tech information systems. This study analyzed the title changes of abstracting and indexing tools and the name changes of databases to determine whether and how the names reflected underlying changes in subject content and function. Dennis Auld's suggested evolution of secondary services "from 'reference services' to 'active links' to 'diverse content' and then on to 'community support platforms' " (1999, p. 178) was used as a framework for discussion.

The period of 1980 to 2002 was chosen for this study because of the rapid development of on-line databases and more recently Web-based databases and full-text journals. Three data sets were used in this research. The first source of data came from Dolores Owen's book *Abstracts and Indexes in Science and Technology*, published in 1985. This book included 223 titles of print abstracts and indexes. Fifty titles of print abstracts and indexes were chosen from Owen's book by systematically selecting the fourth title alternated with the fifth title. Some adjustments were made because non-English titles, titles

having ceased publication, book reviews, dissertations, translations, and proceedings were excluded. Four titles were chosen from the "general" section. Ten of the fifty selected titles were for abstracts issued by the Commonwealth Agricultural Bureaux, or CAB (Appendix A).

The second data set came from the 1980 article in the *Journal of the American Society for Information Science* by John Regazzi, Bruce Bennion, and Susan Roberts on on-line systems. Even though the title of the article indicated that it covered on-line systems in science and technology, it also included databases for many other subject areas. All the databases that dealt with science, technology, and medicine were selected, that is, 50 out of 137 (Appendix B). These two sources from the 1980s give us first a selection of print abstracts and indexes and second an early list of on-line databases. The publication dates coincided with a period of great growth and change, described by M. Lynne Neufeld and Martha Cornog (1986) as a "near explosion in the database and online industry" (p. 185). According to Martha Williams (1987, p. 2), the number of on-line databases grew from about six hundred in 1980 to more than three thousand in 1985.

Several directories and guides were used to look backward and forward in time for database name changes and for clarification of names, including *A Guide to the World's Abstracting and Indexing Services in Science and Technology* (Library of Congress, 1963); *Information Sources in Science and Technology* (Hurt, 1988, 1994, 1998); *Reference Sources in Science, Engineering, Medicine, and Agriculture* (Malinowsky, 1994); *Gale Directory of Databases* (1997); and *Ulrich's Periodicals Directory* (2001). The Web sites of publishers, agencies, societies, and vendors were also used to clarify names and as part of the final data set.

The third set of data was developed by selecting forty-six sci-tech databases and full-text resources from the lists found on the Web pages of three university libraries (Appendix C). From one of the libraries all the licensed sci-tech databases were selected. This initial list was supplemented with eight additional databases that were publicly accessible from the other two libraries. This was a convenience sample of databases. Libraries differ somewhat in the products they provide access to and how they list and group databases, indexes, and full-text products on their Web pages. It is assumed that the databases used in this study are major databases and are representative of what would be found at medium-sized university research libraries. The names of the selected databases as listed on the library Web sites and the names that were found after clicking on the link to that of the publisher or vendor Web sites were analyzed for explicit or implicit information on subject, scope, and function represented in the names. "Function" was understood to be what a database was used for, that is, abstract, index, review, link, library, portal, and so on. In the marketing arena, especially in the Web environment, an information product is said to have "functionality," which may be understood to mean all its capabilities.

Results and Discussion

Although Owen's list (1985) was published later than that of Regazzi, Bennion, and Roberts (1980), Owen focused on print abstracts and indexes; consequently, it was not surprising that *abstracts* was the most frequently used word in the titles (Table 1). If we apply Auld's (1999) framework, the frequent use of the word *abstracts* and the use of *index* clearly demonstrate that these names indicate that these tools were very much in the reference services stage. The purpose of abstracts and indexes was to list, identify, organize, search, and perhaps summarize. That was not unexpected for the print tools.

The analysis of the subject coverage in the Owen list showed that forty-nine of the fifty titles were explicit about their subject, including one that had an embedded subject (*Index Medicus*). Three titles used the broader terms of science and technology. Only one title (*Current Contents*) did not indicate its subject, but it did imply its function was current awareness. The CAB titles (ten) included in the Owen sample clearly indicate their specialized subject content and their function. Owen's list included many of the specialized abstracts that were begun in the 1960s and 1970s. This specialization occurred because "the large abstracting services in chemistry, physics, and biology have become too 'general' to meet the needs of individual scientists," as Krishna Subramanyam (1981, p. 294) points out.

The results of the analysis of the names used for on-line databases in the list compiled by Regazzi, Bennion, and Roberts showed that the word *abstracts* is less frequently used (Table 2) than in Owen. However, the use of the word *abstracts* and suffixes related to such things as indexes, search, and references illustrate that these early on-line system names were still very much related to the names applied to reference tools. It no doubt was important to some producers to use a name to which librarians and others could relate as the transition was being made from print secondary tools to electronic ones. In the early 1980s the stage of "information manufacturing" was one of emulating the "print paradigms" and

Table 1. **Word Frequency in Titles of Abstracts or Indexes by Function***

Abstracts	39
Index	6
Current	3
Review(s)	2
Bibliography	1
Citation	1
Contents	1
Digest	1
Journal	1
Advance	1
Literature (subtitle)	1

* Source: Owen (1985).

the beginnings of digital enhancements (Arnold, 1992, p. 33).

In the development of names for on-line databases the subject became less evident in many cases. Professional societies, trade associations, and government agencies often used acronyms for their database names instead of clearly indicating subjects covered. In the Regazzi list about one-third of the on-line databases (eighteen of fifty) had their subject coverage obscured in this way. Affiliated professionals and librarians may have known or quickly learned the acronyms used for the databases, but it may be assumed that other potential end users would have difficulty deciphering the names and knowing their subject coverage. In Regazzi's list thirty-two of the fifty titles had an explicit subject or were identifiable with a little effort. This ratio contrasts sharply with the subject clarity of the print titles found in Owen (forty-nine of fifty).

Both Owen and Regazzi and colleagues included descriptions for the information tools they listed. An analysis of Regazzi and colleagues' descriptions, which came from on-line vendors (1980, p. 168), showed there was frequent use of three words: *worldwide, literature,* and *coverage,* as in "worldwide literature," "world coverage," and "world literature." Even though only one database had any indication of "literature" in its name, and that was as a suffix (CANCERLIT), descriptions of thirty of the databases said they covered the literature. The scope words *world* and *international* appeared in only three of the names of databases but in twenty of the descriptions in Regazzi, Bennion, and Roberts. These twenty databases covered the literature in the sense of a finding tool and perhaps summarization, but they did not provide the actual literature. In Owen forty-eight of fifty of the abstracts and indexes were designated "international" in scope, by which was meant worldwide coverage (1985, p. vii). Owen's list included only one title with the word *international* in the name. One subtitle included the word *literature*. The word *world* was not present in any of the titles selected from Owen. So in both data sets, even though *worldwide* or *international* were frequently used to describe print and on-line tools, their titles and names rarely used those words. Science is often considered to be an international undertaking. Sci-tech information tools are also described that way.

To get a sense of the changes in the names during the period from 1980 to 1985, the names of databases found in the Regazzi list were checked against the list in Owen, which often gave the equivalent database name for the print tools. It was found that twenty-six of the Regazzi databases were listed or were referred to by Owen. In nine instances the print title and database name were identical. Of the twenty-four names not found in Owen, the lack of five of them could be explained by a difference in coverage in the two compilations, especially for the alcohol and drug databases. Most of the others not listed in Owen were trade associations or industrial databases, which probably had been proprietary before their being loaded by vendors. Many of these databases were specialized and technical. They either had no print equivalent or were not available to libraries and thus were unlikely to be listed in Owen.

People who were familiar with print tools would have encountered many unfamiliar names when looking at database names. There was drastic change in the language of titles or names as information tools moved from print to electronic format and as new products were added in the on-line environment. In addition to the

Table 2. **Word Frequency in Database Names by Category***

Function	Number	Subject	Number
Abstracts	14	Subject explicit	23
Bibliography	1	Subject identifiable	9
News	1	Subject obscured	18
[Suffixes]	15		
line	3		
search	3		
dex	2		
doc	2		
lit	2		
archive	1		
info	1		
ref	1		
[Prefixes]	2		
Comp	1		
SCI	1		

* Source: Regazzi et al. (1980).

nine names that were identical in the Owen and Regazzi lists, if database names with an embedded subject or print title were included in the count, then there were sixteen instances, or 32 percent, of the database names that might be discerned. The relative lack of continuity between the print and on-line versions and the introduction of new products with new names could be expected to contribute to the low use of databases except by intermediaries whose business it was to become knowledgeable about these new information tools. The use of acronyms, one assumes, caused as many difficulties in the early 1980s as it does today.

To further understand name changes in the 1980s and 1990s, the database names found in the 1980 Regazzi list were checked in the *Gale Directory of Databases* (1997). Of the fifty names thirty-five remained identical or nearly so, eleven had moderate to more major changes, and four were not found. These data suggest that during the period of great growth in on-line databases the name changes were not as great as during the period when the shift from print abstracts and indexes to on-line databases occurred. The *Gale Directory* included CD-ROM and on-line databases available from vendors as well as producers.

Two of the databases not found in the *Gale Directory* were found by locating their organization's Web site. One organization called itself a "virtual research library," and the other had a search form and used its full name, not the acronym. From the *Gale Directory* it was found that one database added the word *world* to its title (*Surface Coating Abstracts* became *World Surface Coatings Abstracts*), while another dropped it (*World Aluminium Abstracts* became *Aluminium Industry Abstracts*). Interestingly, one database made a great change in its name to include the word *global*, that is, *SAE Abstracts* became *Global Mobility Database*. From the titles checked, it seemed that there was no movement to incorporate an indication of the scope of a database in its name, even though or maybe in spite of the fact that many of the journals and databases are owned by large worldwide corporations. The scope of a database is something that librarians try to find out, but some users, especially in the Web environment, seem to either make certain assumptions about it or give no thought to it.

The third and final data set (Appendix C) used the names of forty-six databases found on selected Web pages of academic libraries and compared them with the names used on the linked Web pages of publishers, vendors, and government agencies. In almost half the cases (twenty of forty-six), the names were identical or nearly so. In eighteen instances the names on the linked Web pages differed substantially, or the name was not prominent or required knowledge of the acronym. In those cases the name could result in uncertainty or disorientation for the user. In eight instances the name was very different, and the user would be very confused after reaching the linked page. One of the main culprits in the last category was a vendor's interface that did not show the database name, which must have been exceedingly confusing for users.

As part of the history of sci-tech databases librarians have invested time in getting people acquainted with certain of the key databases, and there is a reluctance to use newer names on library lists. For example, librarians continue to use the name MEDLINE, even though that name is not immediately visible at the top of the National Library of Medicine Web site. Some may appreciate the continuity, but others who have learned the new name and now ask for PubMed will not be well served with the old name. Some libraries may put an additional name in parentheses or use a "see reference." The differing practices of libraries in listing the same database also leads to confusion, for example, ISI, Science Citation Index, and Web of Science. The Web sites of libraries and the linked sites have undergone changes since this analysis was completed. Nevertheless, the findings give us an indication of recent developments in this history of change.

Table 3 shows the analysis of the language of names found on library and linked Web pages for scientific and technical databases. The words *abstracts* and *index* were infrequently used on these Web pages. On the linked Web pages they were abbreviated, which further reduced their visibility. In comparison with the Owen and Regazzi lists, the words *abstracts* and *indexes* had much less presence in the Web environment. Those words are reflective of reference service in the print era. On the linked Web pages the word *journals* was used most frequently (eight times). In several cases the use of this word was qualified, as in *journal center*, *journal gateway*, *journal finder*, or *electronic journals*, to give a clearer idea of its function and to distinguish electronic from print. The linked Web pages used the word *library* eight times, with one being *digital library*. The libraries themselves used the word *library* two times for the National Library of Medicine, as part of the MEDLINE entries, and they also used *digital library* one time. The word *Web* was used more on linked Web pages than by libraries. On the linked Web pages a greater number and range of words (*Web, link, homepage, gateway, portal*) were used,

Table 3. **Word Frequency of Database Names by Function, Derived from Web Pages**

Library Web Page: Number of Uses of Word	Function	Producer/Vendor Web Page: Number of Uses of Word
3	Abstracts	1 (abbreviated)
3	Index	2 (abbreviated)
2	Journal(s)	8
2	Citation	0
2	On-line	2
1	Database(s)	5
1	Reviews	2
0	Publications	1
1	Reference center	0
2	Library	7
1	Digital library	1
2	Press	0
1	Web	5
0	Link	1
0	Home page	1
1	Gateway	3
0	Portal	1
1	Village	1

all of which could be interpreted to mean links, diverse content, or other capabilities. The singular case of the use of the word *village* could imply a community service platform. One can conclude that publishers are using language that suggests they provide more than a reference service database. However, exactly what is meant is no longer apparent from the name. The many different words used to express function suggest that experimentation is occurring and that a "sorting out" is taking place.

The lists of names on library Web pages and on the linked Web pages were analyzed to determine the degree to which the subject could be known from the name (Table 4). The subject was more explicit or more easily identifiable from the names on library Web pages than on the linked Web pages. A large number of names on the linked Web pages for publishers, vendors, and agencies did not give even a clue to the subject content—especially where acronyms and brand names were used—of the services listed. Approximately 57 percent (twenty-six of forty-six) of the library Web pages and 43 percent (twenty of forty-six) of the linked Web pages gave explicit or identifiable subject areas. These numbers can be compared with 64 percent in Regazzi, Bennion, and Roberts and 98 percent in Owen.

The naming of a database is an important act. Some organizations chose an acronym that has been adaptable over time. *SCI* is powerful because it can be thought of as a shortened form of the word *science* and it refers to *Science Citation Index*. In either case potential users think of science, which is the domain of coverage. This citation index is one of several databases under the rubric of Web of Science and more recently Web of Knowledge. *BIOSIS* embeds the subject, and even if you cannot remember Biosciences Information Service, there is a connection to the subject. These examples are in contrast to acronyms that are difficult to associate with their subject content. It seems clear from the preceding analysis that producers, vendors, libraries, and librarians have roles to play in making database names clearer as to the database's subject and function. One assumes that it is especially troubling for users when they can tell neither from the name. Most users seek self-reliance in both physical and digital libraries (Lincoln, 2002) and are not well served by the obscurity of database names.

The information-seeking habits and expectations of users need to be considered in tracing the history of databases. Although these habits vary among scientists, engineers, and professionals, some researchers never or rarely use abstracts, indexes, or on-line databases for retrospective searching. Instead they rely on browsing what is easily accessible, or they speak with colleagues (King & Tenopir, 1999; Leckie, Pettigrew, & Sylvain, 1996). These methods make sense because researchers are always honing their own print collections and electronic bookmarks for their current and anticipated needs, and those around them are probably doing the same. Researchers do not want to search multiple databases, certainly not beyond two in most cases. In multiple database searching, whether done as a "one search" or separately, there is always the challenge of translating or mapping the language between databases, and in addition the search results may overload the researcher (Smith, 2000).

Science Citation Index was designed to avoid being restricted to one or a few disciplines or specialties (Wouters, 2000). According to Brown's study (1999), many researchers are unaware of abstracts and indexes in fields other than their own, but they and scientific

Table 4. **Relatedness of Database Name to Subject, Derived from Web Pages**

Library Web Page: Number of Databases	Relatedness of Name to Subject	Publisher/Vendor Web Page: Number of Databases
14	Subject explicit	13
12	Subject identifiable	7
8	Must know product or organization	9
12	No subject connection	17

administrators all are familiar with *SCI* because of the metric aspects now associated with it.

In the third data set (Appendix C) several of the products covered multiple subject areas. The word *science(s)* appeared in eight names, including *interscience*. Collections of searchable electronic journals may facilitate interdisciplinary research, but again one can assume that researchers will not want to cycle through a great number of publisher collections. As shown in the third data set, there appears to be a movement toward use of the general, all-inclusive word *science* and away from the names of science specialties. Research is clearly becoming more interdisciplinary, and information systems are being developed that have or promise functionalities and tools that will facilitate general knowledge management. This trend suggests that the functionalities of databases that serve retrospective and current-awareness purposes are still evolving.

Conclusions

The changes in naming practices for the titles of abstracts and indexes and the names of databases and full-text products reveal some of the history of scientific and technical information systems. Librarians played a key role in the early adoption of on-line systems and continue to play a role by providing access to databases. The four stages in the evolution of electronic information (reference services, active links, diverse content, and community support platforms) from Auld (1999) suggest a framework for discussing the results of this study. Many of the on-line information products are probably still in the reference stage. Many are developing their functionalities to include links, especially to full-text journal articles and to library catalogs. Although such words as *gateway*, *portal*, *digital library*, or *village* imply diverse content or a community support platform, these products are still in various stages of development. They may provide access to multiple databases and to different types of materials that an organization produces, and they also may allow users to create personal profiles. The "village" Web site for the engineering community includes an electronic reference service available from librarians and engineers. This service supports the community by providing help with technical questions and in using their databases. It is unknown what role the secondary services will have in assessing and synthesizing information for their communities (Auld, 1999).

In the print era it was clear from the name of a tool that it was an abstract or index and what its subject coverage was. Many of the current names used for Web-based databases do not include words that indicate their subject, and the words used to express function are more varied and less explicit than in the past. Those are clear changes from the print era. Producers of on-line databases infrequently used the word *abstract*, perhaps because they may have anticipated and planned for full-text, linking, and other capabilities, thus making that word insufficient. The Internet is a new medium with different possibilities to showcase products and services. An organization's secondary service database may be one of many resources and services found on its Web site.

By the 1990s increased competition and branding of products, vertical integration, mergers, and acquisitions all affected the evolution of information systems. With research then becoming more inter- and multidisciplinary and information producers more conglomerated, the practice emerged of including the general word *science* rather than the names of specialties in the names of databases to identify their scope. To broaden their markets, we may begin to see organizations use special marketing names or to move, as with the Web of Science, to the use of the even more general word *knowledge*. Such changes would suggest that secondary services are well into Auld's third stage of diverse content, including diverse subjects and types of resources.

Although many scientists and engineers had access in the early 1980s to computers and on-line systems, end-user searching of these systems did not materialize. As Roger Summit (1999) said, "the Web has accomplished what the traditional online services have been unable to do before now—capture the interest of a broad base of end users" (p. 280). By the 1990s the electronic information industry was using "consumer marketing techniques" (Arnold, 1990, p. 95). In other areas of life we know that a brand name or logo can be very powerful in commanding recognition and "consumer loyalty." Determining how acronyms, brand names, and logos function in marketing electronic information was beyond the scope of this study, but we know that this process is having some effect as faculty members and parents of prospective students sometimes ask for the availability of specific databases by their product name.

Results of a recent survey for the Council on Library and Information Resources on Internet use show that "faculty and students give high priority to speed and ease of access, information quality, and search functionality. They assign low priority to display options and user-support services" (Greenstein & Healy, 2002, p. 6). Speed and ease of access are inhibited, and the needed and best-quality information may not be found if users

are bewildered by the names of databases and full-text products. Librarians, publishers, and vendors need to work together to remove this confusion by introducing clearer naming procedures that better reflect what these products offer, especially as sci-tech information systems continue to evolve and users want to find their own electronic paths to and through these systems.

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Appendix A. **Print Abstracts and Indexes Selected from Owen (1985)**

Abstracts on Hygiene and Communicable Diseases
Agricultural Engineering Abstracts
Animal Breeding Abstracts
Applied Science and Technology Index
Aquatic Science and Fisheries Abstracts
Bibliography and Index of Geology
British Archaeological Abstracts
Calcified Tissue Abstracts
Chemical Abstracts
Computer Abstracts
Computing Reviews
Corrosion Abstracts
Crop Physiology Abstracts
Current Advance in Genetics
Current Contents
Current Physics Index
Dental Abstracts
Ecology Abstracts
Environmental Quality Abstracts
Fertilizer Abstracts
Gas Abstracts
General Science Index
Genetics Abstracts
Geophysics and Tectonics Abstracts
Gerontological Abstracts
Herbage Abstracts
Index Medicus
International Abstracts of Biological Sciences
Leukemia Abstracts
Maize Quality and Protein Abstracts
Metals Abstracts
Meteorological and Geoastrophysical Abstracts
Nuclear Science Abstracts
Oral Research Abstracts
Plant Breeding Abstracts
Pollution Abstracts
Protozoological Abstracts
Psychopharmacology Abstracts
Rheology Abstracts, A Survey of World Literature
Rice Abstracts
Safety Science Abstracts Journal
Science Citation Index
Small Animal Abstracts
Statistical Theory and Method Abstracts
Textile Technology Digest
Theoretical Chemical Engineering Abstracts
Tissue Culture Abstracts
Weed Abstracts
Wildlife Disease Review
Zinc Abstracts

Appendix B. **On-line Databases Selected from Regazzi et al. (1980)**

AGRICOLA
AIRS
Alcohol Use/Abuse
APILIT
APTIC
Aquatic Science and Fisheries Abstracts
BHRA Fluid Engineering
BIOSIS
CA SEARCH
CAB Abstracts
CANCERLIT
COMPENDEX
DRUGINFO
ENERGYLINE
ENVIROLINE
EPB
EPILEPSY
Food Science and Technology Abstracts
FOODS ADLIBRA
GEO-REF
GeoArchive
INSPEC
International Pharmaceutical Abstracts
ISMEC
Maritime Research Information Service Abstracts
MEDLINE
METADEX
Meteorological and Geoastrophysical Abstracts
NIMH
NTIS
Oceanic Abstracts
Paperchem
PESTDOC
Petroleum/Energy News
PIRA
Pollution Abstracts
Population Bibliography
Psychological Abstracts
RAPRA Abstracts
RINGDOC
SAE Abstracts
Safety Science Abstracts
SCISEARCH
SPIN
Surface Coating Abstracts
TITUS
TULSA
WELDASEARCH
World Aluminum Abstracts
World Textiles

Appendix C. **Names of Databases and Full-Text Products Used by Libraries, with Names of the Linked Publisher or Vendor Web Pages***

Academic Universe
LEXIS.NEXIS
Academic Universe
ACM Digital Library
acm PORTAL
THE ACM DIGITAL LIBRARY
AGRICOLA (Agricultural Online Access)
AGRICOLA
Welcome to the National Agricultural Library's (NAL) Web Gateway to AGRICOLA (AGRICultural OnLine Access)
American Chemical Society
ACS PUBLICATIONS
American Institute of Physics
AMERICAN INSTITUTE OF PHYSICS
AIP JOURNAL CENTER
American Physical Society
APS APS Journals
American Physical Society
Annual Reviews
Annual Reviews
Applied Science & Technology Index
OCLC
FIRSTSEARCH
Current database: AppSciTechInd
ASME Journals
ASME Online Journal Gateway
Biological Abstracts (BIOSIS)
about ERL'WebSPIRS'5
Biological & Agricultural Index
OCLC
FIRSTSEARCH
Current database: BioAgInd
BioOne
BioOne
CA (Chemical Abstracts)
STN on the web
Cambridge Journals Online
CAMBRIDGE
My CJO Homepage
CatchWord
CatchWord
CINAHL
about ERL'WebSPIRS'5
Compendex
Ei Engineering Village 2
SELECT DATABASE
Compendex
Dialog @ CARL
DIALOG @ CARL
EDP Science
Les editors
De physique EDP SCIENCES
Engineering Village 2
Ei Engineering Village 2
Expanded Academic ASAP (InfoTrac)
INFOTRAC Xxxxx Xxxxx Library
Expanded Academic ASAP
GEOBASE
OCLC
FIRSTSEARCH
Current database: GEOBASE
Health Reference Center – Academic
INFOTRAC
GALE GROUP
HighWire Press
HighWire LIBRARY of the SCIENCES and MEDICINE
IEEE
IEEE Xplore
INSPEC
about ERL 'WebSPIRS'5
Institute of Physics
IoP electronic journals
Internet & Personal Computing Abstracts
OCLC
FIRSTSEARCH
Current database: InternetPCAbs
ISI Citation Databases
ISI Web of SCIENCE
JSTOR
J JOURNAL (overlay)
STOR STORAGE
MathSciNet
AMERICAN MATHEMATICAL SOCIETY
MathSciNet Mathematical Reviews on the Web
Medline – Natl Library of Medicine Gateway
NLM Gateway
Medline – PubMed / Natl Library of Medicine
NCBI PubMed National Library of Medicine NLM
Medline [SilverPlatter]
about ERL'WebSPIRS'5
Onefile (InfoTrac)
INFOTRAC Xxxxx Xxxxx Library
InfoTrac OneFile
Oxford University Press
OXFORD JOURNALS
PsycINFO
about ERL'WebSPIRS'5
PubMed
NCBI PubMed National Library of Medicine NLM
PubSCIENCE
PUB SCIENCE
(PUB rotated 90degrees)
Royal Society of Chemistry
RSC Journals
ScienceDirect (Elsevier)
SCIENCE d DIRECT
Science Citation Index (Web of Science1988+)
ISI Web of SCIENCE
Springer
LINK (rotated 90 degrees)
Web of Science
ISI Web of SCIENCE
Wiley InterScience
WILEYInterScience
Journal Finder
Zentralblatt MATH
Zentralblatt MATH

* The names used on the Web page of the selected library are flush left, while the name(s) used on the Web page linked to the publisher or vendor are indented.