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Reference Classics Ahead of Their Time

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library instruction sessions, and through our active liaison program to faculty. As with our netLibrary books, we will increasingly catalog them to promote access through the online catalog."

Anna Demiller: "We catalog all our electronic resources and put links in the online catalog. Many of the more important encyclopedias and database type resources go on our databases page. Librarians put links on their subject guide Web pages. We haven't made any attempt to pull all of these together in one place."

Johann van Reenen and Donna Cromer: "All of the above. There are links in the catalog and on our subject Web pages. We also have Web pages that list our collections of electronic books and databases."

Sarah Barbara Watstein and Ellen Broidy: "Our homepage serves as the gateway. Through "Search and Find," patrons can link to e-resources, and then to Reference e-resources. It's that simple. Additionally, of course, there's access through our department's Web pages: <http://www.library.ucla.edu/libraries/rl/reference/index.htm>."

Julia Zimmerman: "Besides records in the library catalog, we've created a system called "InfoTree," which is available from our Web page. It groups important electronic reference and research resources by subject. It gets a significant amount of use by students and faculty. Additionally, patrons can go directly to OhioLINK's Website if they wish. We talk them up in library instruction sessions. We work with faculty to make links to appropriate resources from their course management sites."

8) How else is your library promoting/marketing/advertising that electronic versions of these reference works are available?

Trina Carter: "Along with links to the Library's journal databases, many e-reference sources will be linked from within courses run through our campus courseware, Blackboard. We use our statewide virtual reference service to push pages from these sources, where appropriate. We also send email alerts to the faculty and others in our campus community to remind them of important electronic reference sources in their fields."

Anna Demiller: "If we purchase subject-specific titles, the subject librarians do "PR" with the relevant departments (faculty and grad students primarily) using email and personal contacts. In some cases they have had

success in getting announcements in department newsletters. Major purchases are touted on the library's home page under the monthly Highlights feature and might also be put in the library's newsletter. If the resource goes up on our databases page, it is listed for a while on the New Databases list and gets a "NEW" logo next to its title."

Johann van Reenen and Donna Cromer: "We use our campus-wide email list that is distributed to all our faculty to let them know about new resources and our selectors share information with all departments. We also placed an ad in our student newspaper when we began acquiring large eBook collections. We continue to look for other ways to promote these collections."

Sarah Barbara Watstein and Ellen Broidy: "Our primary vehicle for promotion and marketing remains the Web, and through the avenues mentioned above. Additional promotion and marketing is done by fund managers in their roles as liaisons to their constituents, within the context of information literacy programs, across the reference desk, and through our many print publications."

Julia Zimmerman: "Mostly informally — we take every opportunity to spread the word about the terrific array of resources we offer."

Reference Classics Ahead of Their Time

by **David Tyckoson** (Head of Public Services, Henry Madden Library, California State University - Fresno)
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At the summer 2005 annual **American Library Association** conference in Chicago, one of the programs most of interest to readers of the reference issue of *Against the Grain* was titled "Once and Future Reference Classics." During this program, which honored the 75th anniversary of the *Reference Books Bulletin* section of *Booklist*, several speakers discussed what makes a classic reference source. **Mary Ellen Quinn**, editor of *Reference Books Bulletin*, started the program by quoting from some original reviews of sources that became classics and discussed the properties that make classics endure. Speaking in jest, **Jim Rettig** had the easiest answer: if it's in his book *Distinguished Classics of Reference Publishing*, it's a classic. If it's not in the book, it's not a classic. Seriously addressing the program's theme, he discussed what is necessary to create an electronic classic. **Merle Jacob** of the **Chicago Public Library** provided a list of criteria explaining what makes a classic for small libraries, the main points being that the book be concise and inexpensive. **Casper Grathwohl** of **Oxford University Press** discussed the editorial process behind the creation of a classic reference title, of which **Oxford** has produced as many or more than any other publisher. Each speaker provided a different take on what makes a classic reference source.

All of this talk about classic reference works got me thinking. From my own review of some key reference sources from the past, it was clear that some publishers tried to create a classic reference source by introducing new innovations in format or content. Often those publishers introduced good concepts, but the information delivery mechanisms of the day were not quite up to the task of making the resulting tools easy to use. Looking back with the hindsight of today's information technologies, those innovations would probably be taken for granted. However,

in the older, non-electronic days, they were not always as well received as the publishers intended. Even when the publishers had some very good ideas, their products were cumbersome to use without the searching and linking advantages that we have today.

It is time to honor a few of these classics (or should-have-been-classics) of the past. Some of them have indeed become reference classics, some were classics that became non-classics, and at least one is a relic that should only be found in a museum (if, in fact, anyone saved a copy). However, the concepts used in each of these sources presaged the Internet and electronic resources in one way or another. They have all contributed to the development of reference and all deserve some kind of award. Lacking any official awards that apply in this situation, this author and *Against the Grain* proudly present the *Before Their Time* awards.

What Were They Thinking Award

The **What Were They Thinking Award**, offered to a concept that made a great source more difficult to use, goes to the *Encyclopedia Britannica*. From the 1770s to the 1970s, *Britannica* was the standard of English-language encyclopedias. Its entries were accurate, scholarly, and well documented. In fact, *Britannica* typified the very concept of the encyclopedia. It was often imitated, but never duplicated.

Unfortunately, that was apparently not good enough for **Mortimer J. Adler** and the other *Britannica* editors of the 1960s. They wanted to try something new, different, and innovative. Thus was born the famous (or infamous) *Britannica 3*, or *New Encyclopedia Britannica*, the tripartite revision that divided the world's knowledge into the Propedia, Micropedia, and the Macropedia. The concept behind this was that the user could start with an outline (Propedia), read a brief factual account of their topic (Micropedia), or read a lengthy scholarly treatise (Macropedia). Users

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were expected to explore topics at their own level of interest, rather than being forced to read through long entries to find specific information.

These changes had a decidedly mixed reception. Some critics loved it. **Anatole Broyard**, writing for the *New York Times*, said that owning this edition of the *Britannica* "was like money in the bank" and called it "an intellectual credit card."²² **Robert Gorham Davis**, also writing for the *New York Times*, said that "the new *Britannica* is just about as good as it possibly could be."²³ **Mortimer J. Adler** himself claimed that the *New Encyclopedia Britannica* was "the first new idea in encyclopaedia making in 200 years."

Users, on the other hand, had a rather different opinion. With no index (one was added later in 1985), navigating the different 'pedias was problematic at best. Users did not really understand the conceptual relationships between the different sections. Since entries in one section did not correspond directly to entries in another section, users would look in one section, not find what they want, and give up. The information was probably still contained somewhere in the set, but users could not find it. The late **Bill Katz** evaluated the work this way: "The division of the set into two major parts is confusing, and although the format has some benefits for ready-reference work, it is decidedly confusing for laypersons."²⁴ For librarians and many home users, the introduction of the new design had one clear result: it elevated the *World Book Encyclopedia* as the source of choice when consulting an encyclopedia.

Had the Internet existed at the time that the *Britannica* editors designed the new format, the results would have been entirely different. Most Web pages are programmed to follow the precise design introduced by **Adler**. They have an outline, link from the outline to brief information, and link from the brief information to more extensive text, images, and even audio and video. In advertising the *Britannica 3*, one of **Adler's** claims was that it "is capacious enough to accommodate all the explosive expansions and alterations in human knowledge that are likely to occur in the next 50-100 years." Had the Web existed, there is no doubt that this would have been the case. However, in print form, the technology was not flexible enough to make this happen.

Twenty years later, the editors did place the *Britannica* on the Web. *Britannica Online* was the first complete encyclopedia to be available to subscribers on the Internet and it was a big hit. The convoluted access to the print version became natural links and pathways in the electronic form. However, as if to prove that they could not leave a good thing alone, in 1999 *Britannica Online* became *Britannica.com* with the intent of becoming an information portal. Once again, the editors of *Britannica* confirmed that *World Book* is the encyclopedia of choice for librarians and home users.

Not Enough Room Award

The **Not Enough Room Award** goes to a product that intentionally leaves something out in order to save space. Although there are many possible winners of this award, it has to be given to *Poole's Index to Periodicals*. One sample citation from p. 403 of the first volume of *Poole's* demonstrates why:

Elliot, John. Meth. M. 38: 3.—Am. Meth. M. I: 329.

To the reader, other than the name **John Elliot** (or is it **Elliot John**), the rest is written in code. Is **Elliot** the author or the subject? What is a Meth. M? Is 38 the year, the volume, or the page? And what is that second entry for? Although some entries in *Poole's* are a little more obvious than this one, there are many that are equally as cryptic and even more so.

Of course, the reason for the use of such abbreviated information was purely economic. When **William Frederick Poole** had the idea for an index to magazine articles, he ended up with a project that was a little larger than he originally had in mind. The brilliant idea of a printed index to journals, which was one of the true revolutions in 19th century librarianship, quickly became a publishing nightmare. As the years passed, there were more and more magazines with more and more articles to index. What would have been a relatively small project in 1801 became a massive undertaking by the 1880s. In order to keep the cost of production as small as possible, he developed abbreviations for the contents.

This practice was later adopted by the *Readers' Guide* and by almost every other subsequent periodical index. The use of abbreviations for journal names (and for other parts of the entry) became a standard feature of indexes throughout the 20th century.

In today's electronic world, this would not be the case. Although publishing in print format still presents an economic disadvantage, storage in an electronic format does not. In fact, electronic storage is essentially free. A quick search of the Internet finds that people around the world are storing incredible amounts of information, whether it is worth storing or not. Had **Poole** invented the periodical index in today's environment, no abbreviations would have been necessary.

To their credit, the editors at **H.W. Wilson** no longer use abbreviations in their electronic products. Even the *Readers' Guide Retrospective*, which is built upon the old print *Readers' Guides*, does not use abbreviations. Unfortunately, many other journal indexes continue the practice of confusing the user with abbreviated journal titles. In today's electronic world, there is absolutely no reason for publishers to abbreviate anything in their databases. Do you hear that, **PubMed**?

Link to Full Text Award

The **Link to Full Text Award** goes to a product that had the foresight to understand that users prefer original documents to abstracts. This award goes to one of the first (if not the first) reference sources to provide users with indexing, abstracting, and full text: the *Educational Research Information Center (ERIC)*. Through its print index, *Research in Education (RIE)* (later called *Resources in Education*), and its document supply division, the *ERIC Document Reproduction Service (EDRS)*, *ERIC* paved new ground in access to information. Not only did it index material of interest to researchers in education, it provided the full text of almost everything that it indexed. Unfortunately, the full text delivery methods of the time were not as good as today, so most of us had to use *ERIC* documents on microfiche. However, the availability of full text original sources linked to indexing was a revolution in reference publishing. For the first time, users had easy access to the complete text of almost everything indexed.

Not only did *ERIC* innovate in providing full text information, but it also was unique in what it indexed. At a time when most indexes covered journals, the documents covered in the early years of *ERIC* were entirely that: documents. Most of what *ERIC* indexed consisted of what we used to call "gray literature:" government reports, conference papers, theses, and other formats that were virtually impossible to obtain except at the institution of origin. *ERIC* not only alerted the world to the existence of these materials, but provided them with copies. Over time they developed a set of 16 clearinghouses with different specializations that reviewed documents for inclusion, indexed the accepted documents, and wrote abstracts. The indexing was refined into a highly structured language, so much so that the *Thesaurus of ERIC Descriptors* became the standard of study in library school. From 1966 to the present, *ERIC* provided us with almost 500,000 documents, each indexed, abstracted, and almost all available in full text.

Realizing the need for similar coverage of the education journals, the *Current Index to Journals in Education (CIJE)* portion of *ERIC* was begun in 1969. However, due to copyright restrictions with journal articles, there was no full text distribution of journal articles. Thus began a long episode of confusion among users, who forever wondered why the *EDs* were available in microfiche while the *EJs* were not.

During the subsequent 30 years, *ERIC* (both *RIE* and *CIJE*) became a staple of educational research. It adapted very well to the electronic environment, where both halves are merged into a single database. *ERIC* was one of the first databases ever available in electronic format, with the distinction of being database number one in the **Dialog Information Service** online. In recent years, the *EDRS* has also been providing the full text of its documents in pdf format on the Web, thus weaning us all from our microfiche habit. Sponsored by the **U.S. Department of Education**, *ERIC* has been a tremendous example of how federal funding for research provides benefits at the local level. This database has been the first source for educational information for generations of students and teachers.

So what happens to an innovative project that becomes the standard research tool in its field? Although no child may be left behind, *ERIC* certainly will be. Funding for *ERIC* has been dramatically reduced and

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the clearinghouses that screened the documents have been eliminated. Very little new has been added to the database⁵ and the *EDRS* no longer exists. The future of *ERIC* is uncertain, but what is certain is that it will never again be the standard source for information on education that it was in the past.

Experimental Technology Award

Sometimes you have to use the technology that you have at hand. Such was the case in the 1970s, when the **Information Access Co.** came up with a new periodical index, the *Magazine Index*. Seizing on the opportunity to produce a competitor to the *Readers' Guide*, the *Magazine Index* was the first new general interest periodicals index to catch on with users in almost a century. It was also the first to use non-print delivery technology, which is why it wins the **Experimental Technology Award**.

Unlike the competition, the *Magazine Index* was produced in electronic format from birth. Editors and indexers could input information online, creating one single file instead of annual or monthly publications. The data lived on a large mainframe computer. Users could retrieve that data in two different ways.

The first was by paying for an online search through the **Dialog Information Service**. These searches were rarely done, since most users preferred to spend time looking through indexes rather than spending hard cash for a printout. Given the general nature of the periodicals covered by the *Magazine Index* and the relatively high cost of an online search, users chose to spend time rather than money. In addition, since the *Magazine Index* covered general interest periodicals, these were not the type of research materials that would be used by graduate students or faculty who might have been willing to pay for a comprehensive literature review.

The second means of accessing the contents of the *Magazine Index*, and what made it such a success with users, was by searching on one of its machines. Each machine was a proprietary device provided by the publisher and leased on an annual basis. The machine was a cube approximately the size of a 19 inch computer monitor. Inside was a microfilm reader and projector that displayed the content on the front screen of the cube. Every month, the library received a new microfilm tape that was installed inside the machine, invisible to the user. Each monthly film contained the complete *Magazine Index* database in one alphabetical sequence. Two buttons on the machine provided high speed access to any spot on the film, with a manual knob for fine tuning. It is because of these machines that the *Magazine Index* wins the **Experimental Technology Award**.

The *Magazine Index* was innovative in three different ways. First, it used computer technology to compile the database, which meant it was usually more current than any other source in the reference room. Second, it was cumulative. Every month, the new tape was a cumulative replacement incorporating all new entries with what had existed in the past. Users had to look in only one place on the film to find all of the articles for their topic. Third, it used a new form of information technology to deliver the information. Yes, that technology was computer output microfilm (COM), but when every other product still existed only in print, even the COM format had a certain sexiness factor that attracted users.

Since the library paid for the subscription, which included leasing the machine, users had access to the complete database at no direct charge. And they loved it. Even though the indexing was inconsistent, you could not make a photocopy, the film got scratched and difficult to read, and you had to fiddle with the knobs to find the right place in the alphabet for your topic, users would rather wait in line to get at the *Magazine Index* than search through several volumes of the printed *Readers' Guide*. The *Magazine Index* not only changed users' perceptions of how information should be delivered (fast and all at once), it changed the physical environment of the reference room. *Magazine Index* was the first reference tool that required a special location (one with an electrical outlet) and that came with its own sound. Before libraries were filled with the noise of printers and keyboards, reference librarians became accustomed to the whirring of the *Magazine Index* machines as they raced from one end

of the alphabet to another. The *Magazine Index* deserves a place in reference history as the first information source that was adopted by our users and which required technology to use.

Had the *Magazine Index* waited another decade to be born, it no doubt would have been produced on CD-ROM instead of microfilm. However, coming along before the invention of the personal computer, the publisher used the best technology of the time to make this product a success. This database remains a staple of many libraries today, having morphed into the *Infotrac* and *Academic Index* databases that are widely used — and loved — by both librarians and the public.

Missing Link Award

The Web is all about linking. A file in one place links the user to a related file in another place. Although some fancy formatting and programming might take place during the process, it is the linking that makes the Web such a success. Yet even before the Web, there were information sources based on links. One source that built an entire industry on linking, thus winning the **Missing Link Award**, is the *Science Citation Index*.

The *Science Citation Index* was an idea (and a crusade) that can be attributed to one man, **Eugene Garfield**. Studying indexing in the 1950s, **Garfield** realized that the citations in the bibliographies of scientific papers are useful links for finding related information. Because these citations tell the reader what sources the author used in writing the paper, those sources are often the more useful to readers than articles found through traditional subject indexing. The problem with those links is that they only take the reader backwards in time. Any cited article must predate the article that cites it. While following references can take the reader on a useful pathway through the scientific literature, that path always moves farther and farther into the past.

Garfield wanted to find a way to reverse that process so that readers could use an article from the past and find out who cited it in later years. Borrowing a concept from the legal citators such as *Shepard's*, he devised such a tool. He built a database of core journals, compiled a master bibliography of all of the articles and documents that those journals cited, and produced an index going from the cited to the citing articles. This was the *Science Citation Index*, which debuted with an index covering source journals published in 1961.

The problem with a project such as this is its scope. Even a few hundred scientific journals will cite thousands and thousands of other articles. Since **Garfield** wanted to use the core journals in science as a starting point — and each core journal published hundreds or thousands of articles each year — the size of the citation indexes became enormous. To minimize the time required to produce the product, he used machine indexing to compile the entries. Unfortunately, the machines of the time did not recognize variations in author and journal names, often creating several entries for the same work.

Publishing the *Science Citation Index* in print, which was really the only viable option in the early 1960s, required even more economies than that taken by **Poole**. As a result, the *Science Citation Index* not only used abbreviations, but was published in very tiny print. As a result, it was the only reference tool that regularly required users to read it through a magnifying glass.

Despite the difficulty in print and its rather complex organization, the *Science Citation Index* became a standard reference tool. It did something that no subject index even came close to: it indexed all relevant scientific literature used to write articles in the core journals regardless of the type of source, discipline, or time period they came from. It has been used countless times for evaluating the value of journals and for making tenure decisions. **Garfield's** belief in the value of citation linking was not only rewarded intellectually, but monetarily as his **Institute for Scientific Information** made millions of dollars from its publication.

Had the Web been around when **Garfield** first conceived of the project, it would definitely have been easier to produce. The links between articles would not have been entered into an index, but would have been hypertext links between the various bibliographies. Many of the scientific full text journal databases available today have added this feature, allowing readers to see what articles cited or were cited by one another. In the Web world, these links seem natural relationships between ar-

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ticles. In the print world, the *Science Citation Index* and its related tools magically linked together material that otherwise would have been very difficult to retrieve.

Before Its Time Award

Of all of the reference works that were created before the technology caught up with the idea for the product, there is one that stands out above all others. Designed at **Yale University** in 1949, it incorporated all of the ideas that would one day comprise the Web. It used highly sophisticated indexing, linking between documents, and was a completely full text database. The winner of the **Before Its Time Award** is the *Human Relations Area File (HRAF)*.

Although this resource may not be as widely known or used as the others on this list, its scope, content, and format make it worthy of this award. *HRAF* has always been a model of genius and scholarship. Covering ethnographic information on cultures around the globe, the *HRAF* is a standard information source for anthropologists. From Ojibwa to Oneida, Ouoloff to Uzbek, every cultural group in the world is represented in this resource. Each culture is documented with a cultural summary that describes the geographic, linguistic, economic, social, and religious aspects of the people. Indexing is extensive, including geographic, subject, and cultural terms.

The real gem of the *HRAF* is its access to full text documents. The editors provide full text of original research reports on every cultural group. Those reports contain not only text, but also images relevant to the cultures being studied. Because of the high level of specificity of the database, full text entries are provided even when they are only a subsection of a work covering another group or topic. When a cultural group had not been widely studied, our entire knowledge of that group might consist of only a few paragraphs from a work on another culture. Through its indexing and scholarly design, that information could be found within the *Human Relations Area Files*! With its detailed indexing, coordinated subject searching, and available full text, the experience of using the *HRAF* was similar in feel to a good **Google** search.

Amazingly, the editors created this enlightening search experience using print and microfiche. The original *HRAF* files were actually distributed on 5"x8" paper sheets. Approximately 300 cultures were covered on those original paper files. Starting in 1958, those files were

distributed in microfiche. Since then, hundreds of thousands of documents have been indexed and distributed covering thousands of cultures. If ever a resource were destined for the Web, this one was it.

Of course, *HRAF* is now available in electronic format. For a short time, it was distributed on CD-ROM, with each CD covering a few cultures. Unfortunately, this technology almost seemed like a step backwards, since you had to figure out which CD had your culture on it before you could start searching. Now that the *HRAF* is on the Web, technology allows us to easily take advantage of the depth of information contained in the database. Researchers can browse through cultures, search for specific topics, features, or places, and read the culture summaries and full text documents online.

Had the *Human Relations Area Files* been created in the Web environment, it probably would be viewed as another very good research tool, but nothing special. What the editors created with the technology that they had available to them (paper and microfiche) is remarkable. *HRAF* is the best source designed for the Web that came out before the Web was invented.

Further Awards

Now it's your turn. These five awards are one librarian's tribute to reference sources ahead of their times. If you want to make up your own awards to give to any other sources, let *Against the Grain* know. We want to hear from you about how you use information sources, what you like about them, and what you do not like. If you want to fill this space in future issues with your knowledge, opinions, or irreverence, contact (Guest Editor: **Tom Gilson** <gilson@cofc.edu>). We look forward to hearing from you.

Endnotes

1. Rettig, James. *Distinguished Classics of Reference Publishing*. Oryx Press, 1992.
2. Broyard, Anatole. "An Orgy of Serendipity." *New York Times*, v. 123, June 10, 1974, p. 29.
3. Davis, Robert Gorham. "Subject: The Universe." *New York Times Book Review*, December 1, 1974, p. 98.
4. Katz, Bill. *Basic Information Sources*. 6th ed. McGraw-Hill, 1992, p. 240.
5. After two years of inactivity, some new content has finally been added to the ERIC database. For updates on the status of ERIC, see: http://www.eric.ed.gov/ERICWebPortal/resources/html/about/about_eric.html.

Making Reference: The Business Behind the Books

by **Karen Christensen** (CEO, Berkshire Publishing Group; Phone: 413-528-0206) <karen@berkshirepublishing.com>

In **H. G. Wells's** novel *Tono Bungay*, the uncle of the hero grumbles, "I'd like to know what sort of trading isn't a swindle in its way. Everybody who does a large advertised trade is selling something common on the strength of saying it's uncommon." In response, the hero describes something like old-fashioned publishing: "Some businesses are straight and quiet, anyhow; supply a sound article that is really needed, don't shout advertisements."

Publishing is a business, but many people who work in it are there because of their love of editing, writing, and learning. As a result, the business of publishing is often talked about as a necessary evil. Even when it comes to activities like conference sponsorship and exhibits, which are driven entirely by financial imperatives, we seem not to want to think about bald commercial realities. And when it comes to books themselves, editors hate to talk in terms of commercial value.

I myself was horrified the first time I heard someone refer to a book as a "product." I was at the **Gale** offices in Detroit in 1995, and like many people in publishing and in libraries, I didn't think of what I was about to embark on as business, with the same crude financial challenges that confront people in less literary endeavors. But there are many costs involved in creating good reference publications. If we all understand these factors of production, it'll be easier to talk about the important issues publishers and librarians face today, from pricing and licensing to copyright and collaboration.

I offered to write about the business of reference because I'm a new convert to it: someone who's had to learn it from the ground up very quickly, and who came to it from a literary and scholarly background, not from business or marketing. When **Berkshire** was

creating encyclopedias solely as a packager, or book producer, for large companies such as **Scribner's**, **Macmillan**, **Sage**, and **ABC-CLIO**, we were able to focus on content and leave the production and marketing to our client partners. Since making the decision to start publishing our own reference works — with the first set launched less than a year ago — I've had a crash course in marketing, sales, and distribution, as well as book production. This puts me in a position to provide a primer for librarians, an overview of what publishers have to do in order to get reference publications onto library shelves. I will focus here on print reference, because for most reference publishers it remains the foundation of their business and also their major source of income, and because this lays the foundation for a later discussion of the costs, and potential savings, associated with online products.

Business Basics

The basic process of business — or trade —
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