Why Librarians Should Know a Little Bit about Information Economics

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Introduction

"A cynic is a man who knows the price of everything but the value of nothing" (Oscar Wilde). This brief article will discuss how librarians can use the difference between value and price to leverage their information centers.

Librarians are busy people: Librarians need to maintain and develop collections, manage the library and electronic resources, master database searching, serve clients and train them, develop intra-nets, and a whole host of other activities. Library education and post-graduate training must constantly evolve in order to equip librarians with the new skills required by the fast-changing information world. And as if all this is not a full plate, I claim that information economics is another field that librarians must learn, at least in a basic level, for their professional survival. Librarians must learn information economics in order to be able to better understand what makes the information industry tick, foresee industry changes, negotiate with vendors, market to clients, and survive in a world of shrinking budgets.

Information economics is a very large field of research dealing with various aspects of pricing, versioning, rights management and other issues [1-3]. Without having to discuss elaborate academic definitions and research outcomes, I would like to highlight some fundamental economic concepts which are important for librarians and which can be applied when librarians interact with decision makers, clients, or vendors. To make a long story short, I will discuss each concept in the form of a "lesson". Here are some lessons to think about:

Lesson 1: It's not about pricing, it's about value.
Information is available for direct fees and indirect fees as well as for free – How do all these forms co-exist? Someone always pays, although payment may not be direct or easily understood. Information economics is not merely an issue of pricing. Pricing is an outcome of a more fundamental concept, namely, understanding how people **value** information. Value is assigned based on subjective perception. Because information is distributed mainly by copying, pricing cannot be computed based on the cost of input plus a profit which approaches zero. Pricing must be value-based. Vendors try to develop value-based pricing or leverage the value of information to sell something else or acquire information from consumers.

Lesson 2: Disintermediation and democratized access to information.
Information has been disintermediated and is now available both in mediated and direct channels. In the past librarians and professional searchers (let's call all of them together "informationists") were gatekeepers of information. One had to contact a library or information center in order to get assistance to access information. This meant that there was always a shortage in information (more demand than supply) which in economics translates into high prices. After the internet was opened to the general public and a graphical interface was designed we have seen exponential growth in the amount of unmediated information available to the end-users. Such great supply, even a flood, of information is conducive to decreasing prices. If it were only a linear question of supply and demand, we wouldn't need to discuss this issue further.

Lesson 3: Strange Partners.
The Internet is a meeting place for two very different sources of information: Public sources and private sources. Public sources include, for example, government and academic information. These sources are available at no charge, but the costs to produce them are very high indeed. Funding comes from taxes, foundations, contributions and so on. Private sources include information produced by publishers and database producers. Such enterprises rely on sales revenues and cannot offer free information. Since public sources were the first to appear on the Internet, and there was a tradition of sharing, an expectation for 'more of the same' was created. Internet users expect all information to be free, however, private sources cannot be given away freely.
The Internet is a meeting place for two very different worlds.

Lesson 4: Free Riding and Free Information.
"Free riding" is the classical problem of public goods. Contribution of effort, knowledge, money or other assets is done by a limited group of people, but the good produced is non-excludable and is enjoyed by a large crowd of people who received it as a "freebe" without returning anything to the group of contributors. Free riders may lead to the extinction of public goods. How, then, do information public goods exist? Information public goods have one or more of the following qualities:

1. A large public is interested in them.
2. Serve an interest group.
3. Required by law.
4. Financed by public funds.
5. Based on a longstanding tradition of sharing.

Does content always have one or more of these qualities? Definitely not. Every information user sometimes needs information which is specific to a certain situation, timing, and need. Such information answers the definition of a private good. These are goods traded in a market based on supply and demand. Private goods cannot be forced to be traded as public goods. Moreover, the market encourages the production of private goods by the pricing mechanism. The greater the degree of personalization, the higher the

price that can be obtained for it. Look, for example, at the difference in pricing between easily-available electronic information and private consulting.

The consumer is not always interested in free information, the quality of which is often questionable. Dumping of free information serves as a technique in obtaining market dominance or even becoming a monopoly by information giants. Hence information markets tend to encourage the formation of natural monopolies [4]. Monopolies are undesireable to the consumer in the long-term both because of lack of competition (leading to inferior quality and high prices) and because of the possibility of controlling the public agenda, propaganda, and dogmatism. We don't want free information if it costs us our intellectual freedom.

Lesson 5: Expect the expected.
During the past decade companies have experimented with different models of software and content provision on the net. The experiment included information products in exchange to consumers' reactions to the various experiments. Such experiments made private information goods look like public goods. At some point even analysts believed that such barter could sustain markets and suggested that merely being popular or having many users gives companies value far greater than their balance sheets would indicate. The bottom line was and still is that information private goods must remain private and be sold for a fee, and clients' expectations must be adjusted accordingly. This process may take time and may lead to new forms of intermediation in the information industry.

Traditional information vendors who have always sold their products and services for a fee, did not fall with the decline of the dot com industry. This, again, goes to show that initial positioning creates expectations. In the commercial vendors' case, these expectations helped maintain their business through rough times.

Lesson 6: The up and down sides of technology.
Content is expensive to produce and very cheap to reproduce. Copying can be done by anyone, at low cost, and very easily in a variety of media. People get so used to copying that it seems perfectly natural for them to obtain information this way. The price is often derived from the medium rather than from the value of the content itself. This leads to an "optical illusion" regarding the value of information: Instead of the value being placed on and derived from the content, it is derived from the method or vehicle of distribution.

Lesson 7: Value is in the eye of the beholder.
Being new and unique each time it is used, information is called an "experience good". One must consume it in order to know whether it was useful or not. Moreover, one cannot inspect the goods before purchasing them, as one would do for apples, trousers or other physical goods. Information must be purchased and consumed before its true value is revealed, and then it's too late to undo the deal. Since transfer of information

is done mostly by copying (one can copy or memorize the content), it is not practical to offer a “money back guarantee” for most information products. The result is that subjective value is formed mainly based on intuition and past experience.

Another peculiarity is that there is no transfer of ownership rights with most information goods. The seller can usually keep a copy and sell more copies. In this sense information resembles a service more than it does a market good. At the same time information can be viewed as a raw material or intermediate since it is often the basis for decision making. In decision making the decision itself is perceived as central and important, and the information which led to it is often neglected and under-valued.

The need to experience information together with the lack of ownership rights transfer and the characteristics of an intermediate render the subjective value of information very difficult to assess. Is there hope for information markets in light of these psychological barriers?

Lesson 8: Remedies for librarians.
Libraries and IRCs can leverage the concepts of public and private goods in several directions: Knowledge management, marketing, training, and initiation of new services and products.

Remedy 1: Participate in and cultivate communities of practice.
Many organizations are committed to "Knowledge Management" projects. One of the central problems in knowledge management is that people tend not to share their knowledge with others. In virtual communities many people prefer to be free riders, consuming information without contributing. Understanding the origins of this problem by defining it as a classical public goods problem, sometimes referred to as “the tragedy of the commons”, we can draw solutions from other public goods. Librarians and corporate information professionals should first realize that active participation in knowledge management implementation is integral and important to their professional activities and future. They should aim to input specific, unique, and high quality contributions to all knowledge-sharing groups they participate in. Their contributions can be highly valuable thanks to their access to professional sources of information and their expertise in using them. Other group members who will notice that the quality of information in a specific group is rising, will start visiting it more often, and, with time, some of them will join the critical mass and become contributors. Participation of librarians and information professionals should be proactive without waiting to be asked specifically. Information sharing will be kindled by setting an example and providing high quality answers.

Remedy 2: Preach what you know.
The subject of information economics itself presents a unique marketing opportunity on a purely professional basis. Librarians and other information service providers must first learn and internalize some of the basic principles of information economics. When the principles have been internalized,

explaining them becomes second nature and thus convincing. Information professionals should be prepared to explain these issues systematically at any time and any situation and in any medium: Orally, one-to-one or one-to-many; formally using a presentation or informally during conversation, in writing and with pertinent examples. Here are some possible speaking themes:

- Explain the different sources of information: Public information producers (government, academia, non-profits) versus private information producers (publishers).
- Categorize information sources based on their producers and show when to expect free information, low-cost information, and high-cost information.
- Case studies demonstrating the complementary nature of private and public sources based on the client's area of interest.

Remedy 3: Use technology to add value to your service.

Learn about your clients' "wish list" and try to cater to it. For example, clients are often baffled by volumes of information delivered to them and wish to get a compact answer. Although the entire volume of information may be relevant and useful, reading all of it may be a challenge. Informationists who identify this problem may decide to learn more about post-processing of search results. While our expertise lies in searching and organizing information, presenting it in a useful and easily digestible format to the clients is just as important. After all, we want our clients to use the fruits of our work effectively and come again for more. In economic terms post-processing information is creating added-value. Post-processing can be achieved using the regular word processing, HTML editors and presentation software packages, and it can be stepped up by using specialized software. Such software can, again, be the subject of a training workshop for savvy end-users.

Remedy 4: Design private goods.

Information professionals can also use the principles of information economics to offer products and services which the clients value more than others. Here we must wear our "private goods hat" and think about the needs of specific clients or small groups of clients, rather than a large audience. Privatization is taking place in many areas of business, and perhaps it's time that librarians and information professionals consider which of their products and services can and should be privatized. A system for zeroing in on specific information needs should be continually improved. New products and services based on thorough needs assessment can then be planned. In recent years we have seen a version of this approach on the Internet in the form of sites offering personalization, such as MyYahoo and many others. Some people don't know how to select such services and how to use them effectively. Librarians can offer their help in selecting the resource that best fits a client's needs and then training the client in personalizing the information. Similarly, a whole host of information solutions can be adjusted to a variety of particular information needs for which clients have not been able to find solutions. Information professionals add value by selecting

sources based on quality criteria and by filtering information and focusing it so the client will receive an answer rather than a pile of documents. When our spotlights focus on individual clients, our entire information center or library will illuminate.

1. Shapiro, C. and H.R. Varian, *Information Rules: A Strategic Guide to the Network Economy*. 1999, Boston: Harvard Business School Press. 352.
2. Bates, B.J., *Information as an economic good: A reevaluation of theoretical approaches*, in *Mediation, Information, and Communication*, B.D. Ruben and L.A. Lievrouw, Editors. 1989, Transaction Publishers: New Brunswick, NJ. p. 379-394.
3. Ahituv, N. *Assessing the value of information: Problems and approaches*. in *Proceedings of the Tenth International Conference on Information Systems*. 1989. Boston, MA.
4. Levitan, K.B., *Information resources as 'goods' in the life cycle of information production.* Journal of the American Society for Information Science, 1982. **Jan 1982**: p. 44-54.