

Ross Atkinson

Introduction for the Break-Out Sessions:

Six Key Challenges for the Future of Collection Development

The break-out sessions scheduled for this afternoon will have two purposes. First, they should identify key challenges that face collection development, as it moves ahead into the rapidly changing information environment. Second, the groups should then develop and propose practicable actions that can meet those challenges. Research libraries are, to be sure, reviewing and adjusting collection development goals and operations continually—but such restless re-envisioning remains largely fragmented among different institutions. We need now therefore to consider whether such fundamental challenges can be effectively confronted using such fragmentary means—or whether we need finally to begin organizing ourselves more systematically in collection development, to confront such challenges in concert.

In order assist and encourage our discussions this afternoon, I will present a brief and subjective overview of a range of key challenges facing collection development. I will first consider the evolving nature of collections, and, in so doing, I will confirm that the concept of the collection in the new environment remains valid and crucial to scholarship and services. I will then talk briefly about the main players in the information exchange process. Finally, I will outline six key challenges that the conference planning committee thought might serve as a spring board for this afternoon's discussions.

Collection Development Challenges: A Very Brief Overview

1. Collections.

Let us begin at the most rudimentary level by asking quite simply why we have built collections of information objects, and whether collections should continue to be built in the new environment. While there are obviously many reasons for creating and maintaining sets of information objects, we can perhaps reduce these most easily to three:

a. Political economic: institutional capital. Collections attract scholars, graduate students, government support, donor funding—and add prestige to the institution. This rationale for collection building—the collection as institutional capital—is a primary motivation, even though it is seldom specifically discussed. One point we must bear in mind with respect to this rationale, however, is that it entails or implies the existence of a separate collection at each institution which can in effect compete with all others. The new environment into which we are now moving, on the other hand, is likely to be increasingly characterized by a much more unified collection to which all users would have access. Indeed, what perhaps so fascinates us and unnerves us about open access, I think, is that it might serve as a first, decisive step in the direction of a more unified, less institutionally based collection. While there is no question whatsoever that open access represents a supremely valuable trend ideologically—perhaps the ultimate aim of all collection services—libraries continue to wrestle with its implementation and implications, including its effect on institutional identity. However, such a concern about identity, if I am correct in sensing it, is a red herring—because of what we might call the “axiom of non-equivalence.” By this I mean the trivially simple fact that individual libraries are not the same, nor will they ever be. Each has vastly different resources—not only financial, but also human and creative resources, including different visions and values. The fact is, therefore, that all scholarly publishing could convert to open access tomorrow—every scholarly publication could be made openly accessible—and still, the accessibility, the collection service, the ability of the user to find, understand, use and apply the individual object, would vary enormously from one institution to the other. Any morbid fear we might harbor, therefore, of becoming mirror images of each other as we move toward a more unified collection is unfounded, and we cannot allow it to deter us from moving in that direction, if we decide that direction is in the best interest of our user communities.

b. Material: preservation. The collection of materials in order to ensure their long-term access remains the primary challenge and responsibility of research libraries, regardless of changes in technology or ideology. Preservation has been the principal function of libraries since antiquity—and the library as “memory institution”¹ surely remains the one service that justifies the continued existence of research libraries from the standpoint of society at large. Of the several, difficult preservation challenges we now face, we can perhaps identify two of them as particularly critical. The first of these is technical. Despite significant

research and collaborative experimentation, digital preservation technology has not proceeded nearly as quickly as we had expected, and a range of technical issues (especially with respect to technological obsolescence) remain to be confronted.² The second major challenge is political-economic, and stems from the fact that libraries no longer have direct access to many of the materials they need to preserve. Such materials no longer reside in libraries, but are rather maintained exclusively in vendor databases around the world. While we have made every effort to compensate for this condition through our licenses, such legal safeguards remain clearly inadequate. The greatest single failure of research libraries in the past decade has been to allow this situation to evolve. We must now take whatever steps are necessary to reverse this condition and to resume full responsibility for preserving those materials upon which scholarship will rely in future.

c. Contextual: privileging. A third fundamental purpose of building a collection is to privilege particular objects as being more useful or reliable than others. A collection is always an intermediate sort: a sorting out of components of the universe to produce a subset which stands between the universe and the user. Our views about this responsibility may have been, to be sure, somewhat conflicted. While such privileging is professionally justifiable, it does raise some very real ideological questions. What right do libraries ultimately have to steer users toward certain sources? Would it not be preferable simply to try to provide reasonable access to the universe as a whole, and to allow users to make up their own minds? It is in part a variation on the old and unanswerable question: are we enhancing access to objects that are greatly needed, or are we making objects greatly needed by enhancing access to them? In recent years, however, as services have moved increasingly online, my sense is that the privileging function of has become far less problematic or questionable. The reason is that the universe of information has become so much more complex, its contents so much more varied with respect to quality or reliability or utility—that the user's need for some kind of intermediate sort, to designate or privilege subsets of materials that are more immediately authoritative and useful, is much greater and more warranted than was ever the case in the traditional environment.

The question then, is no longer whether such a sorting is justified—it clearly is. The question is rather how in this new environment such privileging can be effected. Privileging was easy under traditional circumstances. It was done by making an object available in a relatively short period of time—the amount of time the user needs to go to the library—as opposed to the far longer time needed to access a “non-privileged” object through interlibrary loan. Privileging means to make the object more useful and more used by making it more available. But how is such privileging to be effected when both the universe and the collection are available in five seconds? Or, even more to the point, how is privileging possible when the universe is accessible in five seconds, and the collection is available in ninety seconds—because the doorway to the collection, the catalog, requires more time to use than a universal search engine? It is now as if everything has been reversed: the universe is in fact now being privileged at the expense of the collection.

There is no rapid solution to this condition. If privileging is to remain an essential function of collections, then collection development and technical services must redefine and re-envision collection access (assuming the catalog is indeed to remain the collection gateway); at the same time, collection development must collaborate more effectively with colleagues in public services on instruction. Although we may sometimes feel that instruction is a cop-out (i.e., good services should be self-evident and immediately obvious to the user), we need instruction services to teach users (and I do not mean only students) the difference between the universe and the collection, what the collection is, and how to use it. This will mean, of course, that we must know ourselves what the collection is—which will entail further work defining the collection in the new environment. For my part, I still look on the collection as an intermediate sort, regardless of the shift to a digital format. If the user wants to study a topic, the user should first study what is in the collection (digital and print). That content in the collection is by definition reliable and of high quality. On the basis of what has been learned from the collection, the user can then safely venture forth into the universe, evaluating and applying its content.

2. Formality.

How else might we briefly approach further key challenges facing collection development? One direct approach is simply to use the abstract concept of formality in its various connotations. First, we have the question physical format. We need a clearer sense of the use and purpose of print artifacts, as Mark Dimunation reminded us this morning: information resides not only in intellectual content, but also in physical content. The more we move into the kind of world described by Mark Sandler, with increasing (but certainly not exclusive) emphasis on mass digitization, the more important it will be to have coordinated criteria and standards for selecting and maintaining physical artifacts.

We face a similar challenge, however, with respect to the digital object, for it, like the print object (only more so), is not one thing but many. It is a bit stream, to be sure, but on top of that is also functionality, links, a look and feel that contains significant information. Maintaining that “formal” element, on top of the bucket of bits, may be very difficult to do, barring some major advances in technology. The overwhelming chances are, therefore, that we are likely to lose large quantities of that information. Have those of us in collection development grasped the implications of this likelihood? What will be the effects of such loss on the quality and utility of the collection in the new environment? We have not yet created the criteria to identify those rare (and costly) instances when we want to try to maintain the whole database, including its formal components. As we move now into a much lossier collection environment, we must not only accept the reality that we are going to lose much more than we have in the past, but also that we are going to need to decide together much more effectively what should be retained.

In further considering the issue of form, we must also bear in mind the enormous pressures of format hybridity. If we were meeting five years ago, we would all be complaining about how we are now expected to build two collections at once, a digital and a traditional one—with insufficient resources to build even one. But one hears (or at least I perceive) far less of such complaining about this today, and I fear this is because we have become so good at building the hybrid collection that we have forgotten what a huge imposition it is for us, as well as an impediment for our users. We should not be satisfied simply to stand by and allow the transition to the digital information environment to move along at its own pace. We

must do what we can to accelerate it—both retrospectively through mass digitization, but also prospectively by working more effectively with publishers who continue to insist on publishing exclusively in print form.

We need finally to distinguish between what we might call formal and informal publication. Formal publications are the kind of materials we purchased for the traditional library—publications, in various formats, that have gone through the standard publishing process. They have been edited and exhibit imprints; if they are essays, they usually appear as articles within published journals. Today, however, we now acquire (provide access to) large numbers of informal publications, mostly appearing online, that have not been subject to such standard publishing procedures and are playing an increasingly significant role in scholarly publication. Needless to say, there are many issues to be considered with respect to adding these informal materials to research collections. I do not think myself that criteria for selection of such materials is key challenge at this time. I believe libraries will apply the criteria they have traditionally used for collection building, and then, as we gradually come to understand how these new kinds of publications work and are used, selection criteria will be adjusted. The primary challenge from my perspective has to do rather with the fact that the collection as a privileging mechanism remains a very blunt instrument. This has always been the case, of course, even in the traditional collection. An item is either in the collection, in which case it is privileged and defined as useful, or it is not in the collection, in which case it is defined as less useful and is allowed (in the traditional environment) to be more difficult to access. We have never had, however, any real ability to distinguish the relative value or utility of individual items within the collection. If this was indeed a problem in the traditional collection, it will become even more of an issue in a collection to which we are beginning to add informal publications. We must begin to work among ourselves, and with faculty and others, to gauge the relative value of different items in the collection—and to produce the metadata that will convey the results of those judgments to our users.

3. Notification.

I want to draw one further basic distinction about information objects, which we make often, although we have no standard terms. Let us say that the box marked phenomena (Figure 1) contains everything in the world, in the sense of everything that presents itself to our senses and our minds. Scholars observe and

study and measure these phenomena, and draw conclusions about them. Scholars then produce information objects in order to notify (primarily) other scholars of those conclusions—and we can call these objects, as I have previously, notification sources.

Although notification sources can, of course, be treated as phenomena which can result in further notification sources about the original notification sources, and so on, that is not relevant for our purposes. What is relevant is rather that some (a relatively small subset of) phenomena are information objects—historical works, philosophical and legal works, statistics, data sets, telemetry, software. We need always to bear always in mind that information objects as notification sources and information objects as phenomena are entirely different things: they are created differently, they are used differently, and we build collections of them differently (or we should). There is a major difference between the library as speaker phone (what is going on in my subject? i.e., notification) and the library as gold mine (what objects can I find to study in order to produce new notification sources?). We must be careful, therefore, to distinguish them, and to apply different criteria to their selection. Our present obsession with utility – our sense that we should restrict our acquisitions to items that are for the most part heavily used – is because we have become understandably so focused upon notification. While utility is indeed a key criterion for selecting notification sources—other factors must be taken into account in building collections of objects as phenomena.

A very simple model of the universe therefore, might appear as follows: (Figure 2). Where do we see the real pressure in collection development at this time? Clearly it is in the area of formal notification sources (although I expect that informal notification will become increasingly significant for some subject areas). This is admittedly to say little more than the obvious: that our major pressures are centered in formally published journals and monographs. I mention this, however, in order to remind us of two further points. First, in identifying key challenges, we need not feel obliged to confront the whole universe of publication. We can develop models of the universe in such a way (like this simple example) that allow us to concentrate on one part of it. Second, I want to be sure we bear in mind throughout our planning that,

despite the obvious pressures we face, there is more to the information universe than notification sources: other aspects of that universe hold potentially significant challenges for us as well.

4. Players

Before moving ahead to discuss examples of key challenges, I want to talk briefly about the players in the information exchange process. I apologize for using the same linear model that we always use (Figure 3)—but I think we have become so used to it that it is best to leave it alone.

The information object moves from left to right. We begin always with writers and readers. Very few people read in the research library context except to write, even if it is only a test paper. If the writing is a publication, the writer creates the object, which is then moved through a series of intermediaries (many more than are included in this diagram) and finally arrives at the reader—who then uses the object to create a new one, so that the process begins again.

Readers and writers are primary: they are irreducible and essential. Intermediaries, on the other hand, are secondary. This is not to say that intermediation is secondary — there is no way to move information from a writer to a reader without some form of intermediation — but rather that intermediaries effecting such intermediation are secondary, in the sense that different intermediaries can and should be used for different purposes and motives. The search for the best and most economical intermediaries is ongoing.

Heidegger says the world consists of equipment—things you do things with. The information object is indeed equipment—but it is equipment used for a different purpose by each player on the horizontal line. This is a fundamental source of tension in the whole information exchange process, and can lead to a sense of irrationality on the part of some players. Every one of us in this room, for example, could easily design a more rational method of moving scholarly information from writers to readers than the often arcane and convoluted conventions that now serve that purpose. Why so many publishers? Why so many journals? The obvious problem is, however, that what seems wholly irrational to one player is entirely rational to others, because each player necessarily views the purpose of object differently.

We speak often and rightly of a crisis in scholarly communication. That crisis is not a matter of egregiously priced science journals; as disastrous as such excessive pricing is, it is really only a symptom of the so-called crisis. Nor is the crisis simply a result of the fact that each player on the horizontal line is trying to use the information object for a different purpose—for that has always been the case, probably back to antiquity. No, the crisis is rather a result of the fact that there is now a level of technology available to each player on the line, such that each player can assert its will and compete with other players much more effectively. What any player on the horizontal line can do is therefore now heavily contingent upon what other players can and want to do.

There are, of course, many authors, publishers, libraries and readers. We can conceive of them as a vertical lines in this model—others who are in effect in the same business—and their presence leads to a concomitant vertical tension and vertical contingency. This means that any information service must always be looking—Janus-like—in two directions: at other intermediaries on the horizontal line, but also at the other players in the same business along the vertical line.

Jean-Claude Guedon in his paper this morning mentioned the virtuosi, the scholars in the 17th century, who engaged in scholarly communication primarily by means of correspondence. Eventually that correspondence was printed by societies, and that led, as we know, to scholarly journals. I have always thought it would be an excellent idea for scholars to return to correspondence—always assuming, of course, that libraries would store and index it. It would make things so much simpler, and we certainly now have the technology to do it very effectively. Why will this not happen? Because the nature and objectives of the scholar have changed. In the 17th and 18th centuries (there were major exceptions, of course) many scholars were independent—often independently wealthy—amateurs, in the most wonderful sense of the word. But now we live in the age of the professional scholar, a formidable concept that we do not always take sufficiently into account. That professionalization of scholarship means among other things that when such a scholar produces a book or article, that item is unavoidably a commodity—in the sense that the scholar must earn a living, be compensated directly or indirectly, from that publication.

Everyone in the scholarly communication system, everyone on the horizontal and vertical lines, is now a professional. Each player has a commodity to sell—a service, a product—from which that player makes a living, directly or indirectly. Each player, in other words, tries to create a product or service that is more competitive or effective than other products and services produced by other competitors on the vertical line. For authors, as we know so well, such competitiveness is calculated in such terms as publisher reputation and impact factors. But publishers are also obviously competing among themselves—as are libraries. What is perhaps most different about libraries, however, is that they have some difficulty acknowledging and dealing with that competition. They may even pretend sometimes that no such competition takes place. They focus instead with intensity on the horizontal line—publishers, the Evil Empire, vendor effectiveness—perhaps in order to avoid taking the vertical line into account. This makes little sense and impairs services. Competition among research libraries is simply one more condition for libraries to manage. As long as those competitive conditions are ignored, however, they will remain unquestionably one of the main impediments to building effective relationships among research libraries.

Speaking personally, what scares me about the brilliant, trail-blazing, revolutionary arrangement the Google 5, and especially Michigan, have made with Google, is not the effect of that arrangement on the horizontal line. Such a service, if it can be effected, can indeed only benefit the movement of scholarly information from writer to reader. What scares me is rather the effect of the arrangement on the vertical line—on research libraries' relationships with each other. I am frankly frightened that I will not be able to provide users at Cornell with a level of collection service that will be competitive with the collection service that Michigan will be able to provide its users, once its entire print collection is in digital form. And I think many research libraries are concerned about this—although, again, we are loath to discuss it. What I hear discussed are mostly horizontal issues—questions about preservation or whether it is wise to involve another large for-profit vendor in the scholarly information process. Learning how to communicate more effectively about what really matters to us, therefore, may well be the most serious challenge we face.

Six Key Challenges for Collection Development

The conference planning committee has identified six key challenges, which we believe are significant, and which we want to recommend as a place to start our break-out discussions. We do not claim these are the most important challenges, but we do feel that many of the essential issues presently facing collection development can be grouped within them. We will divide these six challenges into three broad categories: hybridity, notification sources, and configuration. Each category is resolved into two challenges.

(1) Hybridity: (a) RECON. (b) PROCON.

First we must consider the category of hybridity. Within that category, we must certainly focus on RECON, full text retrospective conversion. It is time—past time— to begin coordinating RECON activity in research libraries nationally and internationally. We have all been somewhat mesmerized by Google Print—like so many rabbits caught in the headlights. We need now to rouse ourselves and to begin to discuss and coordinate other RECON beyond (and in coordination) the Google project. This can only be done at the international level. We should not shy away from suggesting closer collaboration with the European i2010 project.³ We must also move to create more effective methods for working with developing countries that cannot afford to digitize many of their own materials.

The second key challenge under the category of hybridity is PROCON—“prospective conversion”—in the sense that we need to accelerate the transition to digital publishing by working more closely with publishers that have not yet fully made that transition. We must send a clear message to publishers that we want digital now. We cannot simply wait until they are ready. I fear in fact there are some university presses that are never going to be ready; and that they are being encouraged in their unreadiness by some humanities disciplines. That unwillingness to move to digital publishing will ultimately impair scholarship in those disciplines.

2. Notification Sources: (a) Core Definition. (b) Publisher Relations.

Our second category is that of notification sources. We find under that category our third key challenge of core definition. By this I mean the collective definition by research libraries of the titles that comprise the core of each subject. The net result would be that research libraries agree to collect the same core materials, and then to divide responsibility for collecting different advanced materials. We have been concerned for many years about building the same homogenous collections—but the fact is, we do need to build the same collections of core materials: scholars not reading the same core materials have no basis for communication. But they must also, of course, be able to read different advanced materials. We need finally to begin dividing responsibilities among ourselves for the selection of such advanced materials; that is impossible, however, until we define the line between the core and the periphery (advanced materials), which is something we have never managed to do. Core definition will also respond to a concern voiced by Mark Sandler (in answer to a question) this morning, namely that we need to avoid the time lost by so many selectors at so many institutions reviewing the same core approval books and making minor profile adjustments. Let us define the core collectively, and then devote the precious time of our selectors to selecting (cooperatively) advanced materials.

A fourth key challenge to collection development, which we can also locate under the category of notification sources, is to work collectively in negotiations with publishers. Libraries need to consider as a group options for purchase, going in some cases so far as to agree collectively not to purchase certain publications, because these publications do not conform to standards libraries have set. If aspects of such collective action are in fact illegal, then let us confirm that by pushing the envelope—bearing always in mind that we have all been carefully, judiciously taught by our university counsels to be intimidated by anything relating to legality. We should also consider that we have perhaps occasionally in collection development used legality as a convenient excuse to avoid working together. It is time to find out, by taking initial action, what is illegal and what is not. If certain of such collective actions are illegal, libraries must determine whether options are available to work around them. We are being divided and conquered by some publishers. This is because there is no library market: there are only individual libraries—or at

best discrete and isolated consortia. The fourth key challenge facing collection development is therefore to create a library market, and to stipulate, as a first negotiating step, the conditions under which selling to that market will be acceptable.

3. Configuration: (a) Archiving. (b) Alternative Channels of Scholarly Communication.

We turn finally to third category of configuration—by which I mean something like the old concept of collection management: the storage and exchange of information objects to which we already now provide access. Within this category we locate our fifth challenge for collection development—the enormous one of archiving. This challenge must be approached in two parts, print and digital. We will require decades, generations, to move our paper holdings into digital form. In the meantime, the maintenance of large warehouses of print materials will become ever more costly. It is essential, therefore, that research libraries divide among themselves responsibilities for archiving low-use print materials. With respect to digital information, the most serious challenge universities and their research libraries face is how to reappropriate the responsibility for the preservation of key scholarly objects that are now maintained primarily or exclusively on the servers of publishers and other vendors throughout the world. Technical, economic and even political impediments can jeopardize continued access to such objects, despite the best intentions and commitments of publishers and vendors. It is essential therefore that research libraries re-assume full responsibility for archiving such scholarly materials for the long term.

The category of configuration leads also to our sixth and final challenge, alternative channels of scholarly communication, which Professor Guedon addressed so eloquently this morning. There are indeed serious irrationalities in the scholarly communication system—irrationalities not only from our particular perspective in research libraries, but also increasingly sensed and acknowledged by scholarly writers and readers. There are much more effective methods to move scholarly information from writers to readers than are currently being applied, and we need now to begin working with scholars and other key players to put those other, more effective methods in place as alternatives or supplements to traditional scholarly publishing.

We should in summary distinguish between those challenges that collection development can confront and overcome through close collaboration—we can call these the vertical challenges—from those challenges requiring more effective negotiation with other players, which we can label horizontal challenges.

Figure 4.

We need to confront all of these (or similar) challenges—but if we in research library collection development cannot come to terms with the vertical challenges, which entail working more closely with each other, we must acknowledge that there is no point in taking action on the horizontal challenges, because the collective work needed for the vertical challenges is a prerequisite for confronting the horizontal ones.

Conclusion.

If these six challenges are even indicative of what we are facing in collection development (and they may not be—we may decide in the break-out sessions that we are facing entirely different issues), then one thing is certain. None of these challenges can be met by research libraries working independently. They can only be confronted collectively. If successful work on these challenges should indeed form a primary focus of the future of collection development, then it is the case that collection development has gone as far as it can go by operating as a set of unilateral city states. Collection services will either move forward as a group, or they will remain where they are. We should be very careful, however, not to underestimate the difficulty of working more closely together. If such true collaboration were easy, or if it were merely hard, we would have initiated it long ago. Effective collaboration is extraordinarily difficult for many reasons. Mark Sandler showed us this morning a slide listing about ten reasons we have articulated for not working more closely together. There are obviously many such reasons—but let me mention in conclusion just one. If you decide to create an outstanding collection, then you must hire an outstanding collection development officer, and a number of energetic and highly knowledgeable bibliographers. And, in order—yes, to

provide excellent services—but also in order to meet professional and career goals, in order to put that collection and library on the map, in order to provide national leadership, that collection development officer and those bibliographers will create—given the necessary resources—an outstanding collection. But bear in mind: the collection is not the end. It is a means to the end—and that end is to put the collection on the map and to provide national leadership. But so what? As long as you end up with an outstanding collection, what difference does it make? The system works very effectively in nearly all instances. It is only in a very few cases that this ends-and-means dichotomy can bring us into difficulties. One of those rare instances is cooperative collection development. Cooperation does not for the most part put a collection or library on the map. Cooperation is in fact viewed by research libraries as a form of following, and following is certainly not something that is rewarded.

Why then, we might ask, has so much been written about cooperative collection development? Why is it so often discussed, if we do not reward it? We must be honest. In the same way that a scholar, a scientist, can publish a series of articles in high impact journals and receive tenure for those publications, even though no one ever reads them—a librarian can write and speak about cooperation and receive all manner of credits and rewards, even though no cooperation ever results. Why? Because writing and speaking about cooperation are viewed as forms of leadership, while the act of cooperating is not. That is why there is so much discussion of cooperation, and so little of it.

How then could such cooperation be brought about? I can say only how I know it will not happen. It will not happen by someone standing up and presenting a lot of power points that contain graphs and charts and dazzlingly innovative cooperative models. That would simply re-start the same futile process all over again. No, such cooperation can only be accomplished by research library collection development coalescing and operating as a group. And that will entail, to my mind, nothing less than a transvaluation or reevaluation of some (not all) values, such that it comes to be understood, accepted, acknowledged that, under certain circumstances in collection development, the highest form of leadership or distinction is to relinquish some leadership, to relinquish some distinctiveness. It will entail the creation of a culture in

collection development of collective leadership to displace in certain situations the individual or institutional leadership that so characterizes research library culture at the present time.

As I said, however, this can only be achieved by the leadership of (at least initially) research library collection development coming together to accomplish it—and the leadership of research library collection development is, to a very great extent, in this room now. If we are going to do this, now is an opportunity—this time, this place, these conditions. Time passes swiftly by, and we may well not have such an opportunity again. If we cannot begin here and now, then perhaps we cannot begin at all.

And indeed perhaps we cannot. If that is the case, then we at least have made our best effort—and the rich legacy of collection development, that Henk Edelman described in his very informative paper last night, will likely not be passed on by us to our successors. Collection development will become less relevant in research libraries, and the intermediate sort—so essential in an increasingly online environment—will either not be built at all, or it will be built by some other agency or institution than the research library.

But if, on the other hand, we can do this—if we can take initial steps toward collective action in confronting the key challenges facing collection development, then collection development will continue to thrive and succeed in the new environment, and will ensure, for its part, that the research library will be even more of a corner stone of scholarship and advanced learning in the new academy—even more—than the traditional library was able to be in the old academy. We should aim, I think—we must aim—for nothing less than that.

References

1. Thomas H. Teper, "Current and Emerging Challenges for the Future of Library and Archival Preservation," Library Resources and Technical Services 49 (Jan. 2005), 32-9.
2. Michele V. Cloonan and Shelby Sanett, "The Preservation of Digital Content," portal: Libraries and the Academy 5 (April 2005), 213-37.
3. See http://europa.eu.int/information_society/eeurope/i2010/index_en.htm.

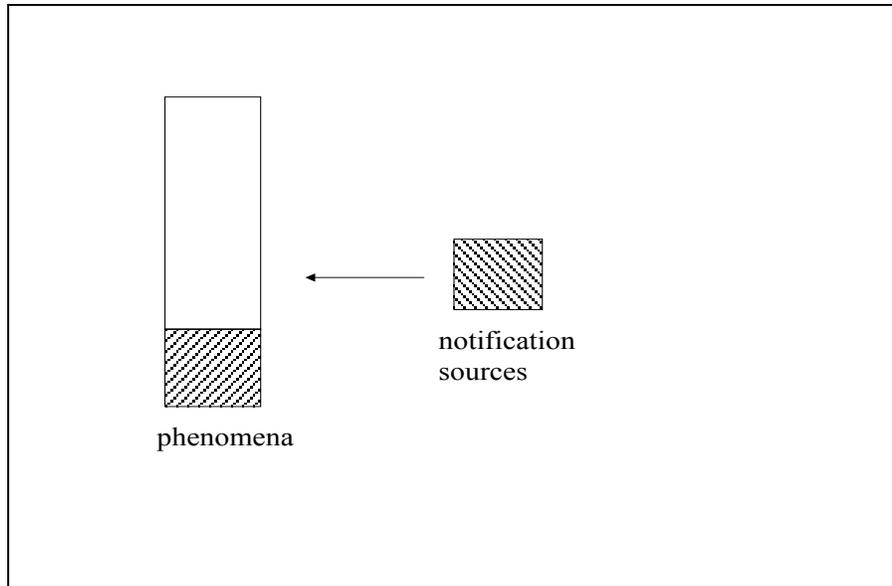


Figure 1

	Phenomena	Notification
Formal		
Informal		

Figure 2

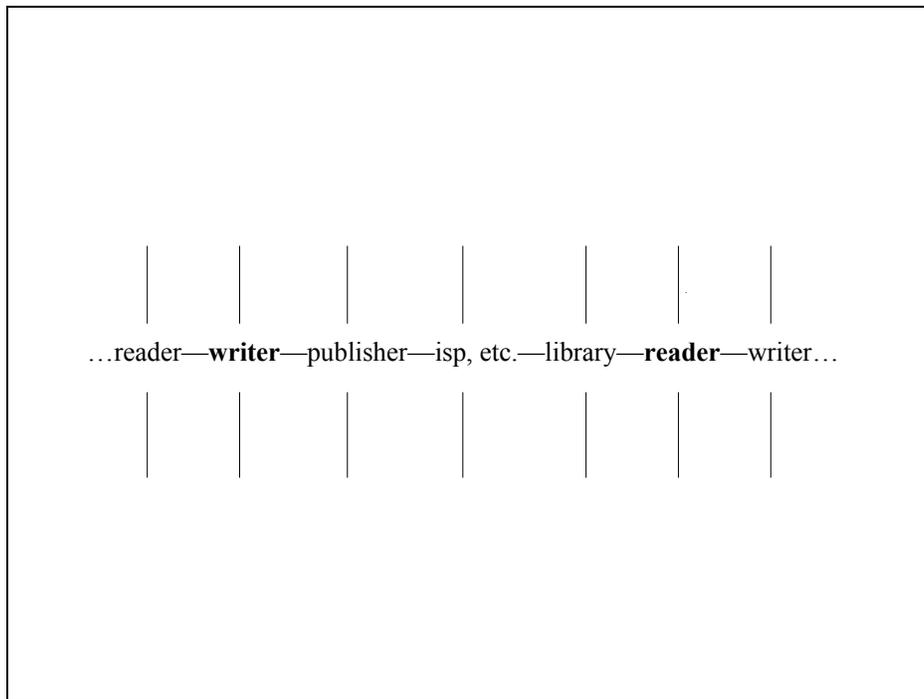


Figure 3

	VERTICAL	HORIZONTAL
Hybridity	Recon	Procon
Notification	Core Definition	Publisher Relations
Configuration	Archiving	Alternative Channels of Scholarly Communication

Figure 4