Humanists and Electronic Information Services: Acceptance and Resistance

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The design and implementation of online systems in libraries have proceeded without much demonstrated empirical understanding of the complexities of users' needs. The authors interviewed a group of humanist scholars at the University of Pennsylvania about their experiences with the RLIN database. These interviews yielded a wide range of responses. Four factors emerged consistently as significant determinants of use: content, connectivity, user-friendliness, and cost. The significance of these factors, individually and in relation to one another, is discussed and evaluated.

f the development of online systems gives librarians a new opportunity to reshape library service, it also mandates a renewed commitment to understanding how scholars work and how they use information. Librarians understand the use of online catalogs, journal article databases, and now full text retrieval systems only intuitively, yet they are puzzled if scholars do not fall upon these resources with enthusiasm.[1]

What will draw researchers to computerized information systems, and what will repel them? What are the trade-offs of the new technology, and how do these stack up? Where should resources be allocated in the face of difficult choices?

At the University of Pennsylvania, we recently had an opportunity to ask these questions. After making personal search accounts to the RLIN database available to faculty at no charge, we interviewed a small group of humanists who had become committed RLIN searchers.[2] Knowing that this catalog of the holdings of major research libraries could be an important resource for any scholar involved in historical research, we wanted to know why it worked for some, but not for others. What distinguished enthusiastic RLIN searchers from colleagues who had little interest in opening search accounts or who, having received accounts, rarely used them? Was the database inadequate for some purposes? What were the barriers to its use?

This is a case study in the use (and nonuse) of new electronic resources by humanist scholars. The numbers are small and the evidence is anecdotal, but what we heard was suggestive and even compelling. As we talked with this group of scholars, certain themes began to recur. We were reminded of the fundamental importance of database content. We became aware of a range of issues relating to connectivity. We heard comments on the importance of user-friendliness and reactions to the issue of cost. We believe that the insights these interviews gave us provide useful point-

ers for the planners of academic information environments and hypotheses about the use of computers in the humanities. These hypotheses can later be tested and reformulated as the new generation of local mega-systems starts to provide data about their use.

CONTENT

Librarian: "Is RLIN central to your work?"
Philosopher (and heavy RLIN user): "Thinking is central to my work."

The most fundamental distinction between researchers and librarians is perhaps the emphasis on *content* by the one and on *access* by the other. Generally, the concerns of librarians—information organization, control, and access—hold the same kind of interest for scholars as a car does for family vacationers: it's what gets you there. This separation of process (technique, technology) from content accounts largely for librarians' failure to excite teaching faculty about library instruction and also explains, at least in part, their lack of interest in online searching. Librarians marvel at the retrieval power of online search systems, Boolean capabilities, keyword searching, and the rest of it, but the humanist scholar, after checking for his or her own publications, looks for that seminal work published in Belgium in 1937 and wonders what the use is of a system that does not include it.

Although RLIN's coverage of nineteenth- and early twentieth-century imprints is far from complete, the scholars we interviewed clearly felt there was enough in the database for it to be useful. RLIN statistics show that about 49 percent of the titles in the books and serials files were published after 1970 and that 8.4 percent of the titles were published in the nineteenth century.[3] We conducted a small study using a bibliography of Hegel scholarship consisting largely of titles not in English and found that 37 percent of the titles published from 1844–1879 were in RLIN, as were 49 percent of those published from 1880–1912, 53 percent for the period 1913–1945, and 77 percent for 1946–1975. Inclusion of

titles from the largely English-language listings of *Annals of American Literature* was 84 percent for 1817–1843 imprints and 91 percent for 1844–1879.[4] Files that go back twenty or even forty years are useful, but the work of scholars is content-driven, and in the humanities content knows no barriers of time or language. Without exception or hesitation, every faculty member we interviewed expressed a strong preference for retrospective expansion of the RLIN database over further development of a research-in-progress file.

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For at least one Penn faculty member, the relative depth of the RLIN database makes it valuable not only for research, but also for teaching. His students search RLIN on his office PC to find what has been published on a given topic. The "extraordinary riches of the database," he maintains, give students a sense of wonder: "RLIN is a teaching tool in a deep sense . . . through RLIN [students] realize that they are becoming a part of a transcultural, transtemporal community of inquiry." Unlike their professors, students tend to take RLIN's power for granted; what impresses them, rather, is the content of the database, much as the printed catalogs of the great national libraries impressed earlier generations of scholars.

CONNECTIVITY

Penn faculty member: "I want the information right away, before I write the next paragraph."

The idea that information should be accessible at the scholar's workstation, whether in the home or office, is fundamental to the concept of the electronic scholar. While RLIN has proven its usefulness at the reference desk (logging approximately 40,000 searches a year at Penn), the direct search accounts have

allowed scholars to use RLIN in a different and extremely powerful way. Without the barriers imposed by the need to be in the library and to ask a librarian to mediate a search, use of RLIN has changed. The autonomous relationship between the searcher and the database encourages relaxed browsing—intellectual cruising, one searcher called it. A member of the Penn English Department spoke of the "gigantic difference" that direct access makes because it allows for "the browser-shopper frame of mind that comes from years of being socialized in the library stacks." RLIN satisfies that urge and provides "a sense of serendipitous exploration." As one scholar explained, "I won't share my semi-focused curiosity with a librarian."

The electronic information resource must, then, be available wherever research or teaching goes on. Unfortunately, this is not yet always the case. Some people can write only at home; others find access in campus offices to be vital; others need to be away from both home and office, perhaps in a library study carrel. Scholars are limited by the hardware and software available to them. Humanists typically have fewer resources than scientists to pay for campus network connections and for the hardware and software that will maximize their use of the network. Is institutional support for home modems and PCs adequate? If the network and online catalogs are designed to operate virtually twenty-four hours a day, subsidized computers and modems might make the institutional investment in a twenty-four-hour resource worthwhile.

But connectivity means more than the installation of network connections and the provision of the necessary hardware and software. It means connecting people to resources—in other words, getting the scholar to the resource with a minimum of effort on his or her part. Many scholars can set up and configure hardware and software, find their way through systems manuals, and persist in eliminating bugs. These are the computer literate members of our faculties, people who jumped at the opportunities offered by new technology and had the interest and inclination to try it out. All of Penn's frequent RLIN searchers are in this category. Most scholars, however, do not have the time, inclination, or endurance for this process. One searcher talked about the "endemic impatience" that humanists have for computing. Many described the fear and frustration that they see in their colleagues. As information providers, librarians must deal with the entire range of reactions to technology, from the enthusiasm of the humanist hackers, to the hostility of "constitutional Luddites," to the impatience of the average-to-busy, overstressed researcher whose time is already budgeted tightly.

The major problem identified by all the libraries that participated in the Research Libraries Group's (RLG) 1988 Research Access Project to experiment with direct scholars' use of RLIN was the issue of connectivity—people with adequate equipment, but no support for installation and setup.[5] The same picture emerged on all campuses: faculty interested in trying out the database, but frustrated by the difficulties of adapting hardware and software to access it. In order to realize their investment in networks, universities must find ways to provide scholars with simple, universal gateways. Some libraries are beginning to meet this need by offering their patrons a straightforward menu of information options—an online catalog, locally loaded databases, and general library information.

USER-FRIENDLINESS

Penn faculty member: "RLIN is difficult to manipulate. . . . It has the appearance and reputation of complexity."
Another Penn faculty member: "I would rather put the money into making the system more powerful than into making it more user-friendly."

Although the RLIN search interface is logical and consistent, it is not remarkable for its ease of use. The faculty to whom we spoke, themselves RLIN users and also motivated, patient, and generally confident computer users, agreed that many of their colleagues, perhaps

especially humanists, would find the less-than-intuitive commands and codes an impediment. Certainly, we encountered faculty who seemed frustrated, even at first exposure to the command structure.

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In the absence of hard data, we cannot say with any certainty how significant a factor user-friendliness is relative to connectivity and cost, but we surmise that where all other circumstances are favorable, an interface like RLIN's should not be a deterrent in most cases. Where other disincentives, such as poor connectivity, interfere, an unintuitive interface will be a ready-at-hand reason not to go further. It is also evident that a relatively unfriendly interface discourages occasional users—scholars not engaged in ongoing, intensive research requiring a large bibliographic database, but rather faculty who need now and then to go beyond the local catalog to verify a title or determine a location.

COST

Librarian: "Would you use RLIN if you had to pay for it?"
Historian: (with raised eyebrow) "How much?"

Librarians know from experience that library services are cost sensitive. In some disciplines researchers can pass along costs and charge them to grants, but this is generally not the case in the humanities. The committed RLIN searchers at Penn indicated that the database had become so important to their work that they probably would be prepared to pay something toward the search costs. They probably would not have allocated funds initially, however, before acquiring some knowledge of the system's usefulness. Clearly, direct charges are a significant barrier to use in some academic environments—at most institutions, travel costs, photocopying fees, and research assistant salaries all compete for the limited discretionary research dollars available to humanists—and because cost is often related to the volume of use of a system, the process can be self-defeating.

CONCLUSION

This ranking—content, connectivity, user-friendliness, and cost—is, for the most part, relative and not absolute. That is, if a particular system happens to be extraordinarily user-friendly, poor connectivity might not significantly impede its use. Content, we believe, is a *sine qua non*, however accessible, easy to use, and cheap a system may be otherwise. However, content, though necessary, is not sufficient. RLIN searchers at Penn are faculty whose work benefits from the database but who also have enough comfort with computers to overcome hardware and software obstacles. We are convinced that if more faculty had easier access to RLIN and that if the RLIN interface were more intuitive or offered a menu-driven option, use of RLIN would be much more widespread. If, on the other hand, libraries were to pass back costs, use would be significantly less.

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While librarians will, in time, learn much more about the scholarly use of computers and computerized information systems than we have outlined here, this effort to understand will always be like shooting at the proverbial moving target. Surely electronic systems will engage scholars and librarians in a dynamic of change, where both sides interact in a back and forth of stimulation and adaptation. New technologies will spur on new research methodologies, and these, in turn, will guide new technological developments. It is important that technology in

the scholarly environment be understood as a part of this dynamic process and not as a Darwinian, adapt-or-die imperative. For this model to work, librarians cannot let systems be systems driven. Rather, decisions always should be informed by users' needs—in all their complexity.

REFERENCES AND NOTES

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