that differs considerably from most of our day-to-day lives as librarians (I suspect), it connects us that much more to our users. The latter was borne out by a check of the circulation history of the copy in Harvard's Widener Library; it has already circulated four times! Moreover, if Dery is correct, Flame Wars offers a preview of how popular culture will evolve in the years to come.—Ed Tallent, Harvard University, Cambridge, Massachusetts.

Gates, Bill (with Nathan Myhrvold and Peter Rinearson). The Road Ahead. New York: Viking, 1995. 286p. + 1 CD-ROM. $29.95. (ISBN 0-670-77289-5). The Road Ahead has already been widely reviewed. Some reviewers have suggested that Gates too often takes the easy way out. They say that he sanitizes and waters down, that we do not really learn anything new about his life or his take on the future, and that he dodges the meatier issues (e.g., the introduction of Windows 95 last fall, the destructive competition of technology companies, or the problem of helping current have-nots become "haves" on the information highway).

These critics raise valid points insofar as readers already aware of Gates's career and conscious of the information age will find much that is bland rather than provocative. Still, for people who want to establish a foothold in the information age (and this is most of us), The Road Ahead is a lucid, readable presentation of what has happened, what is happening, and what might happen. It should not be surprising that Gates would rather offer something for everyone than a greater specificity which would be of interest to only a few readers. He is a businessman and, as such, wants to sell his book and the accompanying CD-ROM (whose "Ask Bill" feature allows the user to understand Gates's broad picture in seconds).

The Road Ahead is of immediate concern to librarians. What I found of most interest was not whether Gates's points are correct (many are, if others still await resolution) but, rather, whether his hard-hitting business acumen translates well to the "gentle" world of libraries and librarians. Gates raises three issues worthy of librarians' consideration: content, business, and personnel.

What Gates calls the "content revolution" is best illustrated by a picture in a recent National Geographic of Gates sitting atop 55 feet of paper while holding a CD-ROM. The CD holds more information than the pile of paper. One day, Gates notes, data carriers the size of our fist could hold the contents of the Library of Congress. With paper out and CDs and other technological advancements in, libraries must be able to accommodate this revolution. Because library users will be able to access information through an increasing variety of ways, librarians will need to mediate the transfer of information.

It is to Gates's credit that he views Microsoft in both absolute and relative terms. We are doing great, he acknowledges, but we can still do better. Librarians, too, must think like this. Now more than ever, libraries need to position themselves in the best economic light in such a way as to illuminate the intellectual richness of library resources and to counter the negative impression fostered by the high costs of library materials. If librarians are to excel, new operating practices must be implemented. This can be done in several ways. First, libraries must increase their purchasing power by leveraging themselves whenever possible. Second, libraries must state their missions and fulfill them. This is obvious, yet too often the extraneous wins out over the essential. Third, libraries must raise, at an even faster rate, additional funds for their operations.

Gates speaks about businesses needing to renew themselves constantly. Staying in the forefront, he maintains, is necessary to remain ahead of one's peers.
Libraries do need to monitor their own operations and watch their bottom line; being “nonprofit” does not mean that wasting money is acceptable. If Gates favors the general reduction of a business’s level of friction (friction understood as time-consuming, unnecessary layers of overhead), libraries would do well to reduce their own.

Gates does not address how librarians can attain excellence. In the early days at Microsoft, Gates instructed his personnel director to “just keep hiring smart people as fast as you can.” If it were that easy, every company would presumably hire “smart people” and attain Microsoft’s level of success. It is not that easy, of course, but libraries need to examine their present hiring practices. How do we educate and attract “smart librarians”? What is the MLS worth, and how much importance should employers invest in whether prospective librarians have one? Is library school really as absolute a world as some would have it—that is, does a job candidate’s having the MLS ensure that he or she is best qualified? After all, library patrons do not worry about MLS degrees; they worry about receiving adequate service.

In line with the hiring strategy at Microsoft, the most crucial factor for library employment would be the candidate’s rightness for the job. Today’s “smart librarians” evince three traits. First, they are critical thinkers. Second, they are, by definition, information junkies, yet their minds are supple enough to differentiate and prioritize the information. Third, they combine the natural curiosity of a wide-eyed dilettante with the rigor of a scientist. In simple terms, the best librarians of the future will be able to process more and more information via more formats more quickly. That outstanding librarians already bear these traits is obvious. “Smart librarians” are educated and educable, and it is people with the potential to become this whom we should recruit and cultivate.—Michael P. Olson, Harvard University, Cambridge, Massachusetts.


Internet-based resources, once considered only marginally important, now are taken more seriously and are rapidly being integrated into the information landscape of many scholarly disciplines. Academic libraries are further legitimizing network resources by selectively cataloging them. Although the library OPAC provides a familiar and controlled searching structure, it is unlikely that it will ever supplant the need to search the Internet directly. Because a variety of subject directories and search tools are sprouting up all over the Internet, this is a much less absurd proposition today than it would have been until quite recently. Today’s challenge is to understand the nature of these directories and tools, and to learn how to integrate them effectively into reference and instructional services.

In his preface, Richard Wiggins, author of The Internet for Everyone, notes that “The Internet Searcher’s Handbook will be uniquely useful because its authors are not just toolsmiths, but also scholars in