

The Future of the Digital Library: An Interview with Tom Peters

by James L. Morrison and Tom Peters

Tom Peters, an academic librarian, is the founder of [TAP Information Services](#), a firm that provides consulting services to libraries and other organizations in the information industry. Peters also serves as a consultant to [LibraryCity](#), an ambitious project that seeks to make thousands of e-books in easy-to-use formats available to the public. I interviewed him in September 2004.

James Morrison [JM]: Tom, in the Middle Ages libraries were centers of learning that attracted scholars to their organized body of literature. Today, it is possible for me to zip you a message containing more information than was in Thomas Jefferson's library. How do current technology trends affect the way we think about library collections?

Tom Peters [TP]: Print-based libraries developed in an age of scarce printed resources. Books were rare, expensive, time-consuming to create and copy, and difficult to transport. That is why collections of print-based books developed around centers of religious belief, learning, and wealth. It was cheaper and easier for people to come to the collection than for the collection, or parts of the collection, to go to the people. Digital content and electronic networks, however, have changed the basic environmental conditions in which documents are created, distributed, and used. Now it is much faster and cheaper to bring the document to the user, rather than ask the user to come to the document or collection.

We often hear that the digital age has resulted in a devaluing of time, space, and place. But I wonder if these claims are exaggerated. The populations of most cities around the world continue to grow. The reasons people congregate in cities are various and complex, and the dawn of the digital age has not put much of a damper on the human urge to congregate.

Collections of books and other documents, either printed or electronic, also are a form of congregation. For this reason, a good collection is more than just the sum of its parts. Every collection reflects the ideas and values and interests of the individual or group who developed the collection. Even a poor, out-of-date collection reflects in its own way the values of the people who created it and the community it serves.

JM: What is LibraryCity, and what are its fundamental goals?

TP: [LibraryCity](#) is a nonprofit, grassroots project that aims to elevate literacy in the world by utilizing a medium that is becoming part of everyday life for more and more people—just like the radio and TV in past generations. We are still in the planning stages, identifying key personnel and developing financial resources.

Our goal is to construct a worldwide digital library of both public-domain and copyright-protected e-books. LibraryCity will focus in particular on the "last mile" issues related to helping individuals and groups access the content in extremely flexible, usable, interactive ways. When people use LibraryCity, we want them to feel that they are part of an online community, not just individuals in cyberspace accessing a digitized text.

Other digital library projects seem to match this basic profile. [Project Gutenberg](#), for example, has done a wonderful job of making lots of public-domain content available in durable ASCII format to readers worldwide—but the Gutenberg team does not seem to be very interested in how end-users actually interact with that content. LibraryCity wants to stretch the traditional notion of a library by concentrating as much on how end-users interact with content, discuss it with others, assess its value and usefulness, and apply it to

their lives. For example, we will make it possible for readers to post study guides, comments, and other documents that support the continued use of public-domain information as well as copyright-protected e-books.

We have a talented team working on these objectives. In addition to myself, the group members include a veteran of the semiconductor industry who has participated in digital-library-related work, a public librarian, the head of a wine library at a California university, and three e-book advocates who run related discussion lists and/or Web sites. These people bring not only their professional experience to the table, but also their personal user perspectives (those of parents, international readers, and so on). We also have a technical director with extensive experience in high-volume, Web-based e-commerce subscription systems. At some point we'll add a chief librarian who will focus on collection development.

JM: What distinguishes LibraryCity from other digital libraries?

TP: One potential long-term problem with many current digital libraries is that they grew out of and are supported by bricks-and-mortar libraries. Although there is nothing inherently wrong with that arrangement, in reality it creates a potentially dangerous situation that I call "the other digital divide."

We all know of the dangers and inequities of the traditional digital divide: People who have good access to computer networks have a distinct advantage—in terms of both life opportunities and quality of life, I would argue—over the vast majority of the world's population that does not yet have good access to computer networks. The "other" digital divide points to an increasingly unstable situation that has developed in librarianship as digital libraries have evolved and matured. Usage tends to be global, while funding tends to be local. When we allow it to happen, usage of a digital library is remarkably diverse and widespread. People of all demographic categories and geographic regions will access a good digital library. Because nearly all digital libraries, however, are tied to bricks-and-mortar institutions, the funding base tends to be quite localized. It may be primarily property taxes in the case of a public library, or state taxes and tuition in the case of an academic library at a public university, but the funding sources of most libraries continue to have a strong geographic component.

The "other" digital divide, then, is the growing gap between the globalization of usage and the continued localization of funding sources. Many flagship state universities have wonderful digital libraries that are accessed by people around the world. In future, if not current, budget crises, trustees, board members, and administrators may wonder why these state institutions—with an articulated primary clientele of students, faculty, and staff members and a secondary clientele of all citizens of the state—should be spending resources on a digital library that is used by many people beyond the primary and secondary service populations. LibraryCity is being developed as an online resource that is not tied primarily to a geographically funded bricks-and-mortar institution. We want to work closely with bricks-and-mortar institutions so that our collections and services complement theirs well, but LibraryCity will be a worldwide service.

JM: So how do you plan to fund LibraryCity?

TP: A vibrant, rich, growing corpus of public-domain books is a vital public good—similar to parks, the infrastructure of basic services, and other hallmarks of any advanced society. We want the public as well as libraries and schools to enjoy unlimited access to public-domain books. This means no charges for these kind of texts themselves.

But a completely free library is as rare as a truly free lunch. We are exploring several funding avenues to make LibraryCity a reality: grants, partnerships, and subscription fees, among other options. Foundations and organizations with an interest in maintaining the public good of public-domain books, in bringing the power of e-books to heretofore underserved groups, or in expanding the idea and reality of a digital library may provide some funding. A percentage of proceeds from the sale of copyright-protected e-books may also contribute a revenue stream. Most of the end-users will be expected to bear the expense of Internet connectivity, portable

reading and computing devices, and other essential components of the LibraryCity experience.

JM: As you just suggested, the devices that access and display digital content—laptops, tablet PCs, dedicated e-readers, PDAs, smart phones, and MP3 players—are an important component of the e-book movement. How will the market for these devices evolve in both the near- and long-term future?

TP: I am confident that for the foreseeable future (barring some catastrophic event affecting economic, energy, electrical, and communications systems), many subpopulations that use information intensively (e.g., students, academics, library patrons, white collar workers) will be using some sort of portal information appliance. There currently are many design options on the market, including smart phones, PDAs, and tablet PCs. In general I refer to these appliances as personal, portable information/communication devices. That's not a catchy name, I admit, but I think it covers the basic nature of all of these devices. They are intensely personal devices, even in cases where organizations provide them to employees, students, and the like. As wireless becomes more widespread and affordable, such devices will be used for information storage as well as communication (voice and data).

For the next few years, the struggle will be over which basic device design will come to dominate the market. Dedicated reading devices, such as the Rocket eBook, never really took off. That device did not offer much beyond basic reading and reading-related functions. PDAs did well early, but now smart phones seem to have overtaken them. Tablet PCs hold a lot of promise, but their weight and size approach the upper limits of what is considered consistently portable today. MP3 players and flash memory devices are good for data storage and playback of music and digital talking books, but they offer little or nothing in the way of visual presentation of information and communication. Digital ink technology holds substantial promise in terms of legibility, portability, and power consumption, but I am less confident about the communication aspect.

For the past year or so, I have been working with groups to study innovative personal, portable information/communication devices that have been designed specifically for blind and visually impaired individuals. In seven devices that I have analyzed (Peters [2004](#)), at least three design lineages are evident: portable CD players, flash memory devices, and even the old audiocassette players. The broader e-book device market should monitor this work for at least two reasons. First, some of the functionality (e.g., variable-speed playback of digital content) and standard sets (e.g., [DAISY](#)) coming out of this design community could benefit the general population. Second, historically, several formats developed initially for the blind population, such as the 33 $\frac{1}{3}$ rpm LP record and the audiobook on cassette tape, had a major impact on the general consumer market.

The market may never coalesce around one basic design, or even around two or three dominant devices. An era similar to the one in which the black rotary phone dominated its product category may not recur anytime soon. If, as I anticipate, a wide array of personal, portable information/communication devices becomes increasingly important and widespread for information-intensive users, it will be a major challenge for libraries to adapt their content and services to such a diverse technological environment. One advantage of starting LibraryCity at this time is that we do not need to retrofit any systems or collections to meet this fundamental need. We are planning from the beginning for this scenario.

JM: There are a lot of stakeholders in the e-book movement. Who are they and what are their interests?

TP: The stakeholder groups include authors (or, more generally, content creators), copyright holders, publishers, vendors, technology companies, industry groups, professional organizations, schools at all levels, libraries of all types, and end-users. Authors and publishers want fair compensation and a means of protecting content through digital rights management. Vendors and technology companies want new markets for e-book reading devices and other hardware. End-users most of all want a wide range and generous amount of high-quality content for free or at reasonable costs. Like end-users, libraries want quality, quantity,

economy, and variety as well as flexible business models.

Issues of copyright and access are particularly thorny. We have an obvious interest in the work of groups like the [Internet Archive](#) and the [Electronic Frontier Foundation](#) (EFF), both of which question the limits that copyrights place on accessing and sharing knowledge in a digital age. We also pay close attention to [TeleRead](#), an organization devoted to the cause of well-stocked digital libraries. (Its founder has examined the effect of copyright laws on K-12 networking; see Rothman [1995](#)). [OpenReader](#) is another important initiative in terms of standardizing e-book technology. David Rothman, the U.S. coordinator for TeleRead, and Jon Noring, the executive director of OpenReader, are LibraryCity board-members-in-waiting; John Perry Barlow (of the EFF) is a member of our advisory council.

Ultimately, I think that the growth and sustainability of the e-book movement depends on authors and end-users (readers). I would not be surprised to see interesting new forms of expression and literary genres develop as the e-book movement matures.

JM: How do end-users influence the issues associated with the e-book movement—the standards and technologies used, their ergonomics and cost, and the social/cultural aspects of accessing and interacting with digital content?

TP: When it comes to e-book playback devices and software, I have always thought that the emphasis on ergonomic concerns as a tipping point for the end-user population was misplaced. I think economics, content, and the ability to interact with content in new and different ways are what will drive the adoption of e-books. Portability of lots of information should not be underestimated. Now that gigabytes of accessible, malleable information can be carried in one's pocket, we probably will start to see some widespread shifts and trends in how and where people interact with digital documents.

JM: Tom, on a personal level, what devices do you use to obtain information, either for your professional interests or for pleasure?

TP: I still read quite a few printed books, but if something is available in digital format I do not print it before I read it. For me, reading is reading. The delivery and presentation media are important, and each format has its advantages and disadvantages, but ultimately I just want to read what I want to read, when and where I want.

I find digital content much easier and more rewarding to interact with on screen than printed on paper. Consequently, I read quite a bit on screen in the course of a day. For e-books I currently like my PDA running the Palm operating system. By the way, a PDA with a keyboard also is a good writing device. It's very easy to write as one moves around throughout the day.

I also am becoming more interested in digital audio content, which is easy to access with a portable MP3 player and services like [Audible.com](#). I used to be skeptical when educators and technologists predicted that we may be entering a new era of oral culture, in which audible information will be at least as important as visible information. Now that I have adopted into my own daily life a device that makes music and spoken-word files easy to access from anywhere, I have tempered my skepticism. Some people have argued that listening to a work of literature does not really promote literacy in the same way that reading does. Having tried this for several months, however, I can report from the trenches that, for me, immersive listening is as intellectually challenging, stimulating, and rewarding as immersive reading.

JM: Thank you, Tom, for sharing your project with us and offering your assessments of digital libraries and their associated technologies.

Reference

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