

Editorial

The physical dimension of information space

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Abstract

One of the unintended effects of new information technology has been the obsolescence of the buildings housing the technology. Information technology can be building-independent, but our buildings are not technology-independent. As voluntary-use facilities, libraries will grow emptier unless they create an ambience where the physical space matches the cultural space of modern technology.

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There will always be unintended effects of new technologies. Some of these unintended effects will be fortuitous and some less so (Nardi and O'Day, 1999, p. 41).

Fixed-feature space is one of the basic ways of organizing the activities of individuals and groups. It includes material manifestations as well as the hidden, internalized designed that govern behavior as man moves about on this earth. Buildings are one expression of fixed-feature patterns, but buildings are also grouped together in characteristic ways as well as being divided internally according to culturally determined designs (Hall, 1966, p. 97).

One of the unintended effects of new information technology has been the obsolescence of the buildings housing the technology. This seems surprising in part because the technology itself does not directly depend on any particular configuration of physical space. Indeed, the portability of new devices like laptop computers (mine weighs a scant 3.5lb or 1.6kg) seems to defy spatial restrictions. It weighs no more than some textbooks, and holds in its battery enough power for several hours of active work. I can use my laptop sitting on a bench beside the Red Cedar River with the usual gaggle of ducks quacking for bread just as well as I can use it in my office in the technology-rich Digital and Multimedia Center. It is even possible for me to use a wireless network and connect to e-mail, the Internet, even library databases when outside, or while sitting in an unimproved 1960s era building with too few electric outlets and no Dynamic Host Configuration Protocol (DHCP) ports.

Information technology can be building-independent, but our buildings are not technology-independent. When inside, it makes sense to save the laptop battery by plugging it into the nearest outlet, which means that seats near outlets go first. This phenomenon is particularly obvious in airports, where hordes of business travelers scout every wall and pillar for an open plug, and will even sit on the floor in their pinstripes, if necessary. When inside, it also makes sense to use a cable to link to a network connection. Physical connections are faster, more secure, and less prone to interruption.

As voluntary-use facilities, libraries will grow emptier if they offer mainly pre-laptop seating,



too few workstations, and do not create an ambience where the physical space matches the cultural space of modern technology. The latter is not easy to achieve. Buildings take a long time to design and build. Once built, the best of them last indefinitely and leave a legacy of wrong guesses and immutable infrastructures, which puts architects and planners in the uncomfortable role of seers examining the entrails of a slaughtered computer for visions of the future.

The culture of the contemporary technology-friendly building has some familiar aspects. People wish to sit comfortably, have plenty of light (though glare is now more of a problem), and be able to look up at some distant space, out of a window, if possible. People also remain as inclined as ever to have information come to them, rather than having to get up out of their chair to find it. This is sheer laziness, of course, and many librarians disapprove of undergraduate sorrow at hearing that they must penetrate the dark and unfamiliar passages of that wonderful invention: the open stacks. The bigger the library, the more daunting the task of finding the right floor, the right aisle, the right shelf, and the right book (assuming the book is in the right place, and that the student understands the call number well enough to look there). These undergraduates do not object to a system where they request a regrettably non-digital work online, and can pick it up under their own name at a conveniently central desk in conjunction with coffee or bathroom break. Automated industrial storage systems with books in bins may well represent as important a concession to contemporary culture, as open stacks were in an earlier era, when the waiting time for slowly ambling human book-pagers seemed intolerable.

People sitting in chairs and at study carrels are a familiar aspect of library life that particularly suffers from unintended effects of technology. Ergonomics matter when people have been typing for long stretches and staring intently at screens where the contrast still is not as good as on an ordinary printed page. The solid oak furniture, tall chairs, and high tables that were well suited for holding a book up, become wrist-numbing and shoulder-wrenching torture objects. Chairs at least need

some raising and lowering mechanism, and work surfaces, which mostly still must be fixed in place, need enough space to accommodate a laptop and a book, and, very likely, a bottle of water or cup of coffee. Task lighting may be needed too, because too much overhead lighting causes glare on screens. A building that is well-adapted to technology makes human comfort in using that technology a priority.

The need libraries have to provide teaching space and meeting space has a strong technological component. The buildings are no longer book-warehouses with reading rooms attached. Multimedia capabilities have become integral to bibliographic instruction facilities, if only because such a large part of the instruction has to do with online resources. Screens and projectors for computers also seem increasingly necessary in seminar rooms because the old blackboards or plastic overheads are just not how most people share information. There are odd pockets of exceptions, of course. Text is easy and fast on an ordinary computer, but complex equations and on-the-fly drawings still are not. Smart boards (computer-enabled white-boards) may change that, since the cost of capturing and storing a raster image is dropping fast.

This issue of *Library Hi Tech* is devoted to a series of articles about the construction of the new technology-oriented Lied Library at the University of Nevada – Las Vegas (UNLV). The planners and authors have had to struggle with the unintended consequences of technology, and with adapting their physical space to the culture of contemporary technology users. It is too early to say whether they prognosticated the future correctly in their role as seers, but their detailed descriptions of the process and the result offer much for the anthropologist of space, and perhaps even more to the librarian contemplating new construction.

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