

Commentaries on "The state of Nebraska's plan for the creation of community-based technology committees"

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This response to Christopher Hoy's article represents the perspective of an economic development professional in Washington County who has observed and struggled to follow the numerous planning efforts and technological advances in telecommunications in Maine; who has examined ways local economic development efforts can influence access and use of this technology; and who desperately wants to share Governor King's belief in the ability of the information superhighway to transform our area's economy.

Like Hoy, I have been on a precipitous learning curve for the last three years as Internet access has emerged as an economic development issue in Washington County. Here's what I've learned:

- Maine leads most states in its telecommunications infrastructure. Our fiber-optic network and switching capabilities are state-of-the-art. Our schools and public libraries are being linked to the Internet, providing important public access to this technology. And thanks to The Maine Project, we have a means to guide public policy and development in this arena to ensure the broadest public benefit.
- Low-cost access to the Internet is critical. In our work on this issue, the Sunrise County Economic Council found a passionate and knowledgeable network of local people who truly understood and appreciated the potential of this tool, but found it too expensive to use. Some of these people ultimately collaborated to form a company that provides local dial-up to the Internet. Because of the small population in our local calling areas, this company had to be very creative in designing a system that would provide toll-free access for the entire county, and the critical mass of users it needed to be viable.
- With infrastructure and access in place, we continually need to stimulate demand. As Hoy pointed out, creating access doesn't necessarily create demand. This translates directly into the viability of local service providers, especially in rural areas like Washington County, where only about half of the potential users currently are on line. If access is to continue, demand must be created by public education. Whether this is done through local advisory committees as in Nebraska or through informal networks, private-sector initiatives, public-sector programs, or some combination, a locally implemented, directed public education effort must be ongoing in order for telecommunications and information technology to transform local rural economies. Local expertise and providers should be coordinated to deliver a program to teach local people how information technology can maximize and create business opportunities.

In my view, there are two ways information technology can enhance economic development in rural areas. Ongoing public education is critical to both:

- Providing access to new and larger markets for products and services (Internet);
- Linking remote labor with work opportunities (intranet).

Because of their ability to reach enormous numbers of people all over the world for a relatively low price, Internet web pages are the great equalizers of advertising media. Entrepreneurs are "putting up pages" with great expectations and mixed results. To market effectively with web pages takes an understanding of the medium and its audience. Used without proper links and indexing for search engines, an exercise that takes thorough consideration and more money, a web page is as effective as a message in a bottle.

Maine's economic development strategy identifies call centers and telecommunications-based businesses as having great potential for the state. In large call centers, man hours equal production, and they need immediate access to a large, trained workforce, which is a challenge for an area like Washington County. But remote offices that service a larger center via an intranet connection hold great promise. Local people need to know where these opportunities exist, how to use the technology to start this type of business, and how they or their employees can get training.

Hoy is right in asserting that the focus needs to be on continually developing potential users. This is valuable during infrastructure development, but is more important in maximizing its economic development potential. As state policy makers applaud the implications of the technology, they also should consider its human element--its ability to bring the world to isolated people, to support and create rural businesses, and to provide opportunity for all people to be self-sufficient, doing rewarding work in communities they love.

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Harry H. Dresser, Jr.

One can't find fault with Christopher Hoy's approach to fostering technological development in Nebraska, which has as its goal the education of people through group formation. His article raises many points, but I find two questions particularly compelling in light of the nature of this journal.

First, given the rapid, widespread deployment of telecommunications infrastructure nationwide and the continuous attention use of the infrastructure is getting in the media, is there a need for government to be actively fostering general user demand?

When Gould Academy trustees decided to proceed with a number of significant campus-wide telecommunications projects several years ago, the University of Maine System was generous with its technical assistance. At the time, it was necessary for groups of interested people to share time and resources to make new telecommunications opportunities available to small communities. Those with the expertise to make infrastructure available were rare. Many worked on college and university campuses, and those in the private sector were devoting their attention to larger population centers where growing markets and greater opportunities for profit existed.

During the past three years, that picture has changed considerably. With constant media attention being given to telecommunications, many people with technological skills have turned toward internetworking. The system's proactive behavior in making Internet connectivity available to educational institutions statewide, coupled with the growing availability of technological expertise, has resulted in widely available Internet connectivity within the state. The system's technical support of several small education-based projects that evolved into large projects has had the unanticipated benefit of spurring the increased use of available technologies by businesses. This effect has been seen directly in the formation of for-profit entities to serve commercial technological needs and indirectly in the adoption of new technologies by well-established extant businesses.

In today's Maine, the need for governmental creation of user demand essentially has passed. However, at least two appropriate uses of government resources remain.

- We must make hands-on, end-user education easily accessible to help determine the "best" uses for this technology. Hoy has found a good outlet in the community college courses he's created in Nebraska. We have found that adult education classes on the use of telecommunications facilities fill immediately. It is likely that the best means of increasing small-community interest in new technologies and the acceptance of those technologies is to make them available within the schools.
- As new telecommunications technologies become basic business tools, it likely is appropriate that state government help ensure the universal availability of fundamental infrastructure within the state. This and other issues were addressed in 1994 and 1995 by The Maine Project, A Partnership for Telecommunications & Information Technology Planning, which was funded by grants from the U.S. Department of Telecommunications and Information Infrastructure Assistance Program, the University of Maine System, and the Maine Public Broadcasting Corporation.

Second, to what extent will this pre-education of likely telecommunications users facilitate and expedite their education in productive uses of telecommunications facilities once they become available?

The ultimate goal of any group that increases access to improved telecommunications opportunities must be to promote the widespread and creative use of those opportunities to benefit its region's citizens, communities, and businesses. Since no one is sure how emerging technologies will serve us best, groups new to the evolving technologies must educate themselves at various levels. Education should center on making the physical systems work, how to use extant systems best, or on the social, ethical, and economic impacts of those systems.

The identification and development of technology uses intended to add efficiency or quality takes time and energy. I'll be interested to follow Hoy's project to see if group formation and education conducted well before useful infrastructure becomes available expedites the integration process once facilities become available.

Other Questions

There are many other questions that could spring from Hoy's article. Here are a few to be discussed by those who would consider adopting the proposed model.

1. Will Hoy's methods of creating demand for tele communications infrastructure lead most expeditiously in any political region to the economic development imagined for these technologies?
2. Are those methods the most cost-effective use of taxpayer money, presuming the ultimate goals to be creating demand and competent end-users with the capacity to foster evolution of an immature technology in the business realm?
3. What are the most appropriate roles of government in fostering telecommunications infrastructure growth?
4. Should government attention be paid to the public service possibilities of these new technologies?

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