

Building Creative

The Role of Art and Culture

A leading authority on information technology argues that cities must nurture the creative potential and community engagement of their citizens.

By John M. Eger

Cities across the globe are struggling today to reinvent themselves for the postindustrial economy anticipated by sociologist Daniel Bell and others in the 1960s.

Many communities have been adapting their communications infrastructure to meet the needs of an age in which information is the most valuable commodity. Most of these initiatives, such as the U.S. National Information Infrastructure and Singapore's Intelligent Island, focus on the technological aspects of the postindustrial economy.

San Diego even commissioned a City of the Future committee in 1993 to make plans to build the first fiber-optic-wired city in the United States in the belief that, just as cities of the past were built along waterways, railroads, and interstate highways, the cities of the future will be built along "information highways"—wired and wireless information pathways connecting every home, office, school, and hospital and, through the World Wide Web, millions of other individuals and institutions around the world.

These new information infrastructures are undoubtedly important. But creating a twenty-first-century city is not so much a question of technology as it is of jobs, dollars, and

quality of life. A community's plan to reinvent itself for the new, knowledge-based economy and society therefore requires educating all its citizens about this new global revolution in the nature of work. To succeed, cities must prepare their citizens to take ownership of their communities and educate the next generation of leaders and workers to meet the new global challenges of what has now been termed the "Creative Economy."

At the heart of such an effort is recognition of the vital roles that art and culture play in enhancing economic development and, ultimately, defining a "creative community"—a community that exploits the vital linkages among art, culture, and commerce. Communities that consciously invest in these broader human and financial resources are at the very forefront in preparing their citizens to meet the challenges of the rapidly evolving, and now global, knowledge-based economy and society.

Cyberspace and Cyberplace

The mammoth global network of computer systems collectively referred to as the Internet has blossomed from an obscure tool used by government researchers and aca-



The Intelligent Community Forum recently selected the city of Sunderland, England, as one of the world's "top seven intelligent communities of 2005." The Forum's judging was based on such factors as the availability of broadband infrastructure, the presence of a knowledge-based workforce, a communal focus on innovation, and a progressive social and political culture.

Communities:

PHOTOS.COM



Cyberspace to cyberplace: Communities in which citizens are connected and creative will become stronger and more vital in the Creative Economy.

demics into a worldwide mass communications medium. The Internet is now recognized as the leading carrier of all communications and financial transactions affecting life and work in the twenty-first century.

Internet usage statistics point to one billion users worldwide, with a growth rate of 15% per month. The World Wide Web, the Internet's most popular component, is being integrated into the marketing, information, and communications strategies of almost every major corporation, educational institution, charitable and political organization, community service agency, and government entity in the developed world. No

previous communications advance has been adopted by the public so widely so rapidly.

Many people are concerned about where this phenomenon ultimately will lead. Predictions range from electronic "virtual communities," in which individuals interact socially with like-minded Internet users around the world, to fully networked dwellings in which electronic devices and other appliances

respond to the spoken commands of residents.

In recent years, people habitually have referred to the domain in which Internet-based communications occur as *cyberspace*, an abstract communications space that exists both everywhere and nowhere. But until flesh-and-blood humans can be digitized into electronic pulses in the same way that computer scientists transform images and data, the denizens of cyberspace will have to continue living in some sort of real physical space—a home, a neighborhood, and a community.

Many communities, often without being directly conscious of it, are beginning to design the initial blueprints for the cyberplaces of the twenty-first century. As early as 1976, the French government launched an aggressive plan called *Télématique*, which sought to place computers on every desktop and in every residence in France. Singapore's Intelligent Island plan includes the world's first nationwide broadband network, Singapore ONE. Japan is working toward an electronic future known as *Teletopia*, with 150 municipalities transforming themselves into "cyber-cities" specializing in various industrial applications of information technology. Dubai has launched its Internet City, and Torino, Italy, has its *Infoville* initiative. In the United States in the mid-1990s, the Clinton administration unveiled the ambitious National Information Infrastructure initiative, with the goal of linking every school and school-age child to the Internet by the turn of the century.

The state of California in 1996 launched its statewide Smart Communities program, recognizing that electronic networks like these will play an increasingly important role in the economic competitiveness of its municipalities. The underlying premise of the California initiative is that smart communities are not, at their core, exercises in the deployment and use of technology, but rather active tools in the promotion

Many communities, often without being consciously aware of it, are already designing the initial blueprints for the "cyberplaces" of the twenty-first century.

of economic development, job growth, and higher living standards overall. In other words, technological propagation in smart communities is not an end in itself, but rather a means to a larger end with clear and compelling benefits for communities.

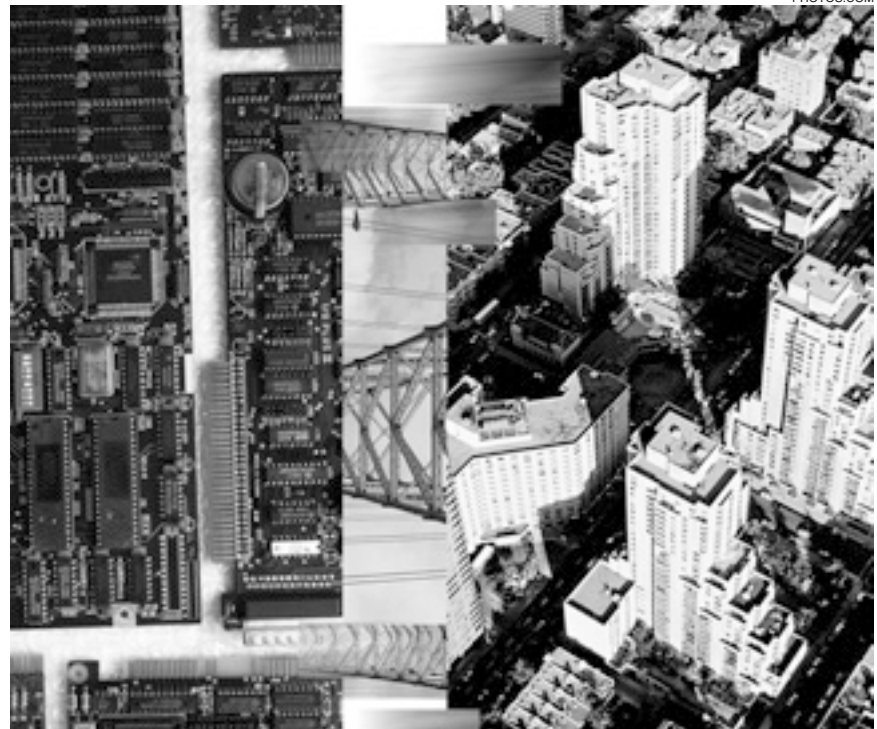
We have learned a great deal about the challenges that cities face in a new global "information economy," an economy based on something other than the production of goods and services or agriculture. Although these basic industries continue, the new economy relies on the production, use, and transfer of information and knowledge.

In fact, one distinct possibility is that cities of the future will not be cities in the usual sense, but rather powerful regional economies. Kenichi Ohmae, author of *The Borderless World* (1999), suggests we are witnessing the resurgence of the age-old concept of the city-state or, as he prefers, the "region-state." The new region-state has the power and authority to take ownership of its own future and establish a governing process reflecting a new model of government for the digital age.

Civic engagement and new civic "collaboratories" (collaborative projects and endeavors) will also be

needed to help reinvent our great cities to reclaim the sense of place and civic pride they once possessed, as well as to ensure that no one is left behind. In *The Magic of Dialogue: Transforming Conflict into Cooperation* (1999), Daniel Yankelovich argues that there is a "struggle between two one-sided visions of our future: the vision of the free market and the vision of the civil society." Citizens need to create the "social capital" that distinguishes their communities, and in the process close the gap between the electorate and those they elect, as Robert D. Putnam put it in his seminal work *Bowling Alone* (2000).

Cities of the future no doubt will be "creative communities" in the sense that they recognize art and culture as vital, not only to a region's livability, but also to the preparedness of its workforce. Future cities will understand that art-infused education is critical to producing the next generation of leaders and workers for the knowledge economy. While art, music, and all things cultural have been enjoyed and appreciated by every generation, there has often been an often unspoken assumption that they were nonessential, even frills. Today, the demand



PHOTOS.COM

for creativity has outpaced the ability of most nations to produce enough workers simply to meet their needs.

Jobs in the Creative Age

Worrying about the lack of qualified workers in this day and age may sound odd. With the globalization of media and markets in full bloom, America, for example, is beginning to see the outlines of yet another outmigration of jobs, unleashing new concerns about rising unemployment. Many economists are alarmed that the latest round of losses, unlike the earlier shift of manufacturing jobs to Taiwan and less-developed East Asian countries, will have a dramatic impact on America's wealth and well-being.

Twenty years ago, it was fashionable to blame foreign competition and cheap labor markets abroad for the loss of U.S. manufacturing jobs, but the pain of the loss was softened by the emergence of a new services industry. Now that the service sector has also widely automated itself, banking, insurance, and telecommunications firms are eliminating layers of management and infrastructure. The traditional corporate pyramid is disappearing, replaced by highly skilled professional work teams. State-of-the-art software and telecommunications technologies now enable any kind of enterprise to maximize efficiency and productivity by employing foreign workers wherever they are located, making the service-sector jobs even more precious. Forrester Research Inc., a market-research firm, estimates that some 3.3 million service jobs will move out of the United States over the next 10 to 15 years. Others put that number at 15 million and say the results will be devastating for the U.S. economy.

While CEOs, economists, and politicians are telling us that these are short-term adjustments, it is clear that the pervasive spread of the Internet, digitization, and the availability of white-collar skills abroad mean potentially huge cost savings for global corporations. Consequently, this shift of high-tech service jobs will be a permanent feature

of economic life in the twenty-first century—but this does not necessarily mean the news is all bad for workers in the United States and other developed countries.

Some economists believe that globalization and digitization will improve the profits and efficiency of American corporations and set the stage for the next big growth-generating breakthrough. But what will that be?

A number of think tanks, including Japan's Nomura Research Institute, argue that the elements are in place for the advance of the Creative Age, a period in which free, democratic nations thrive and prosper because of their tolerance for dissent, respect for individual enterprise, freedom of expression, and recognition that innovation, not mass production of low-value goods and services, is the driving force for the new economy.

The new economy's demand for creativity has manifested itself in the emergence and growth of what author Richard Florida has termed the Creative Class. Although Florida defines this demographic group very broadly, he does a convincing job of underscoring the facts of life and work in the new knowledge economy. As he points out, "every aspect and every manifestation of creativity—cultural, technological, and economic—is inextricably linked."

By tracking certain migration patterns and trends, Florida did a huge service for those struggling to redefine their communities for the new knowledge economy. However, many questions remain. Can the community, through public art or cultural offerings, enhance the creativity of its citizens? And if the new economy so desperately demands the creative worker and leader, what should schools and universities do to prepare the next generation of creative people?

Recent U.S. Initiatives

U.S. investing in the arts themselves is already a \$134 billion industry, according to the Washington, D.C., based advocacy organization Americans for the Arts. But the real benefit is that the arts are "a potent

RICHARD B. LEVINE / PHOTOGRAPHER SHOWCASE / NEWS.COM



Students at the Kipp Star elementary charter school in New York, New York, hone their music-making abilities. The Kipp Star charter schools are run by the U.S. Department of Education within the public school system.

source for economic development," according to a report by the National Governors Association. NGA credits Philadelphia, Newark, and Charleston, South Carolina, as cities that "have used the creation of arts districts as centerpieces in efforts to combat increasing crime and suburban flight by restoring vitality to downtown areas."

The governors' report vividly showed that arts funding reliably generates positive revenue. For example, Virginia collected \$849 million in arts-related revenue in 2000. That year, more than 245,000 arts-based jobs were created in the six states of New England. Michigan earned a tenfold return for every dollar invested in the Council for Arts and Cultural Affairs.

In the last three years, the Los Angeles County Board of Supervisors has developed Arts for All—a Regional Blueprint for Arts Education. The program's objective is for every public-school student in the county to receive an effective K-12 education, of which the arts are an important component. Under this plan, each school district will acknowledge that exposure to and

participation in the arts strengthens a child's academic development and growth as an individual, prepares the child to feel a part of and make a positive contribution to the community, and ensures a creative and competitive workforce to meet the economic opportunities in both the present and the future. Thus, sequential instruction in multiple arts disciplines will be scheduled into each school day and accounted for in the budget of every Los Angeles County school district.

I first realized that we were doing something fundamentally wrong in K-12 education when I was asked to chair California's then governor Pete Wilson's Commission on Information Technology in 1996. About the same time, the governor had a subcommittee on education technology, which I also chaired. Participating in that effort were such luminaries as one of the founders of the personal computer industry, Alan Kay; Larry Ellison, founder and chairman of Oracle Corporation; Joanne Kosburg, former president of Californians for the Arts and secretary of state and consumer affairs under Wilson; and Jeff Berg, chairman and CEO of International Creative Management Inc.

Early on in our deliberations Larry Ellison suggested our goal should be "to put a personal computer in the backpack of every K-12 student by the year 2001." It was a big, startling idea and captured everyone's attention regarding the enormity of our task. California in 1996 was about fiftieth among the 50 states in computers per pupil.

But Alan Kay shouted across the room, "Would you give five pencils to a school, Larry?" The computer, Alan argued, was nothing more than a pencil. What about the paper, he asked, and more importantly, what about the ideas that must come when we ask the student to put pencil to paper? Our challenge, he said, was to better understand how students learn, what they needed to learn to survive and succeed in today's knowledge economy, and what our teachers in private and public learning institutions were doing about it.

Later that year I was asked to meet

with a senior vice president of the Los Angeles based Alliance of Motion Picture and Television Producers, who were asking Governor Wilson to declare a "state of emergency" to help Hollywood find digital artists. Silicon Valley, we learned, also wanted the governor to lobby Washington for more foreign visas for the same reason. There were

"Arts initiatives will be the hallmarks of the most-successful schools and universities and, in turn, the most-successful and vibrant twenty-first-century cities and regions."

people aplenty who were computer literate, they claimed, but could not draw. In the new economy, they argued, artistic talents are vital to all industries dependent upon the marriage of computers and telecommunications.

Sadly, we discovered that art and music had been cut out of most California schools over 20 years ago in our zeal to be number one in the world in math and science. At the time this decision was made, the United States was about eleventh in the world, according to the Organization for Economic Cooperation and Development. Now, the United States ranks about twenty-fourth in the world while Singapore, Sweden, Denmark, and Finland are in the top 10, in part because they have found a way to underscore the linkages between music and math, art and science.

One institution working to prepare its students for the challenges of the new millennium and the information age is the University of California at San Diego's Sixth College. The new college's themes are art, culture, and technology. Students will study the progress of the human species and its varied cultures and will explore watershed events in history in which art, culture, and technology converged. Provost Gabrielle Weinhausen has noted that the rediscovery of perspective during the Renaissance enabled architects and artists to collaborate on the creation of maps. The

key to studying events like that, Weinhausen says, is learning how to ask the questions that illustrate relationships and patterns.

Until recently, there has been only limited evidence of the connection between education and appreciation of the arts and success in the post-industrial age of information. But now it is becoming increasingly apparent that arts initiatives will be the hallmarks of the most-successful schools and universities and, in turn, the most-successful and vibrant twenty-first-century cities and regions. One key to this vision is that we must acknowledge the current out-migration of high-tech jobs as a challenge to the status quo. As former Hewlett-Packard CEO Carly Fiorina told a panel of governors a short time ago, "Keep your tax incentives and highway interchanges; we will go where the highly skilled people are."

Those communities placing a premium on cultural, ethnic, and artistic diversity, and reinventing their knowledge factories for the creative age, will likely burst with creativity and entrepreneurial fervor. These are the ingredients so essential to developing and attracting the bright and creative people to generate new patents and inventions, innovative world-class products and services, and the finance and marketing plans to support them. Nothing less will ensure a city's economic, social, and political viability in the twenty-first century. □



About the Author

John M. Eger is executive director of the International Center for Communications at San Diego State University and holds the Van Deerin Chair of Communication and Public Policy. He has

served as a planning expert for CBS Broadcast International and as a director of the White House Office of Telecommunications Policy. His address is International Center for Communication, San Diego State University, 5500 Campanile Drive, PFSA 160, San Diego, California 92182. Telephone 619-594-6910; e-mail jejer@mail.sdsu.edu.

FEEDBACK: Send your comments about this article to letters@wfs.org.

Copyright of Futurist is the property of World Future Society and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.