THE CREATIVE COMMUNITY

FORGING THE LINKS BETWEEN ART CULTURE COMMERCE & COMMUNITY

John M. Eger

Van Deerlin Professor of Communication and Public Policy
Executive Director, The California Institute for Smart Communities
San Diego State University

“Only through art can we get outside of ourselves and know another’s view of the universe which is not the same as ours and see landscapes which would otherwise have remained unknown to us like the landscape of the moon.”

—Marcel Proust

THE CREATIVE COMMUNITY

FORGING THE LINKS BETWEEN ART CULTURE COMMERCE & COMMUNITY

John M. Eger

Van Deerlin Professor of Communication and Public Policy
Executive Director, The California Institute for Smart Communities
San Diego State University

Acknowledgements

The research and development of this paper would not have been possible without the generous support of Sempra Energy.

I am also grateful for the research assistance of a number of SDSU graduate students and interns who have been exploring this area of research for the Institute for the last several years: Jason Bellatti, Zahna Caillat, Shelly Freimark Macdonald, and Amy Harp.

I am also indebted to my colleagues: Dean of the College of Professional Studies and Fine Arts at SDSU, Joyce Gattas, an advocate of the arts who shares my interest and concerns and who allowed me the freedom to explore these issues at my desire; my editors, Mary Ann Eger and Rachel Laing, and graphic designer Fernando Fernandez.

Contents

Preface

Cities across America have been struggling to reinvent themselves for the new, post-industrial economy and society foreshadowed in the 1960s by economists Fritz Malcop and Marc Porat and by sociologist Daniel Bell.

In their efforts to prepare themselves for the 21st century, many communities focused on updating their data infrastructure to accommodate the needs of an age in which information is the most valuable commodity. San Diego, for instance, even commissioned a City of the Future committee in 1993 to make plans to build the first fiber-optic-wired city in the country in the belief that as cities of the past were built along waterways, railroads and interstate highways, 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 the effort to create a 21st century city is not so much about technology as it is about jobs, dollars and quality of life. In short, it is about organizing one's community to reinvent itself for the new, knowledge-based economy and society; preparing its citizens to take ownership of their community; and educating the next generation of leaders and workers to meet these global challenges and preserve America's leadership position in the entertainment, software and information industries.

At the heart of this effort is recognition of the vital role that art and culture play in enhancing economic development, and ultimately, defining a "creative community" —one that exploits the vital linkages between art, culture and commerce, and in the process consciously invests in human and financial resources to prepare its citizens to meet the challenges of the rapidly evolving post-industrial, knowledge-based economy and society.

...the effort to create a 21st century city is not so much about technology as it is about jobs, dollars and quality of life.

Cyberspace and Cyberplace

In less than 10 years, between 1994 and 2003, the mammoth global network of computer systems collectively referred to as the Internet blossomed from an obscure tool used by government researchers and academics into a worldwide mass communications medium. As we enter 2003, the Internet is now recognized as the leading carrier of all communications and financial transactions affecting life and work in the 21st century.[1]

The growth of the Internet's now most-infamous component, the World Wide Web, has been even more spectacular. With more than 700 million users worldwide and a growth rate of 15 percent per month, it 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 United States[1]

A brief study of electronic history demonstrates that no previous advance, not the telephone, television, cable or satellite TV, the VCR, the facsimile machine or the mobile telephone, has penetrated public consciousness and secured such widespread public adoption this rapidly[1]

...no previous advance, not the telephone, television, cable or satellite TV, the VCR, the facsimile machine or the mobile telephone, has penetrated public consciousness and secured such widespread public adoption this rapidly.

The questions that many people are now asking are concerned with determining where this phenomenon will ultimately lead. Predictions range from so-called 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 have habitually begun to refer 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 have transformed images and data, the denizens of cyberspace will have to continue living in some sort of real, physical space, an environment that will continue to dominate our future in the same way that our homes, neighborhoods, and communities do today.[1]

The Emergence of Smart Communities

Presently, communities and nations around the globe, often without being directly conscious of it, are beginning to design the initial blueprints for the so-called "cyberplaces" of the 21st century. Singapore has implemented its "Intelligent Island Plan". Japan is working toward an electronic future known as "Technopolis" or "Teletopia".

As early as 1976, the French launched an aggressive plan called "Telematique", which sought to place computers on every desktop and in every residence in the country. In the United States in the mid-1990s, the Clinton Administration unveiled its ambitious "National Information Initiative", or NII, with the goal of linking every school and school-age child to the Internet by the turn of the century.[1]

Many communities in the United States and around the world have launched similar initiatives. Sacramento, Seattle and Stockholm have built large-scale public-access networks that residents can use to find information about government activities, community events and critical social services like disaster preparedness, child abuse prevention and literacy training. Blacksburg, Virginia, the small-town home of Virginia Tech, has transformed itself into an electronic village where the majority of residents and businesses are connected to the local data network. San Diego, with its "City of

The underlying premise of California's Smart Community program is that smart communities are not, at their core, exercises in the deployment and use of technology, but rather in the promotion of economic development, job growth and higher living standards overall.

the Future" project, helped the region accelerate the build-out of more sophisticated electronic infrastructures that are already beginning to allow a wide variety of local government, business and institutional transactions.[1]

Recognizing that electronic networks like these will play an increasingly important role in the economic competitiveness of its municipalities, the state of California in 1996 launched its statewide "Smart Communities" program, which has been managed since its inception by the International Center for Communications at San Diego State University. The program defines a smart community as "a geographical area ranging in size from a neighborhood to a multi-county region whose residents, organizations and governing institutions are using information technology to transform their region in significant, even fundamental ways."[1]

The underlying premise of California's Smart Community program is that smart communities are not, at their core, exercises in the deployment and use of technology, but rather in the promotion 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.[1]

The New Urban Landscape

We have learned a great deal since beginning this effort a decade ago to understand the challenges cities face in a new, global "information economy", an economy based not on the production of goods and services or agriculture, although these basic industries continue, but on the emerging trend toward the production, use and transfer of information and knowledge. First, many thought leaders suggest cities of the future will not be cities in the usual sense but rather powerful regional economies. As economists and pundits alike acknowledge, there is no national economy per se, only a global economy, which author Neil Pierce defines as "a constellation of regional economies with strong cities at the core."

Kenichi Ohmae, author of *The Borderless Economy,* suggests we are witnessing the rise and the rebirth 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 a governing process enabling a new model of government for the digital age.

Second, civic engagement and new civic "collaboratories "will be needed to help "reboot" or reinvent our great American cities to reclaim the sense of place and civic pride that these cities once possessed, as well as ensure that no one is left behind.

The key to success in building such learning and caring communities is the nonprofit sector. Management guru Peter Drucker believes, "The nonprofits have the potential to become America's 'social sector', equal in importance to the public sector of government and the private sector of business." But it is the role of business and industry and each region's philanthropic institutions to create the social fabric of the community.

...cities of the future will not be cities in the usual sense but rather powerful regional economies.

According to Drucker, the challenge for business has always been, as he puts it, "not how to do things right, but how to find the right things to do." Not surprisingly, he has been consistent in urging business leaders "to do well by doing good", to find ways to invest in and support the role of the nonprofit sector in building and renewing community.

Third, cities of the future are "creative communities" in the sense that the recognize that art and culture are vital not only to a region's livability, but also to the preparedness of its work force. They understand that art-infused education is critical to producing the next generation of leaders and workers for the knowledge economy.

While art and music and all things cultural have been enjoyed and appreciated by every generation, there has been

an often unspoken assumption that they were nonessential, even a frill. Today, the demand for creativity has outpaced our nation's ability to produce enough workers simply to meet the needs of Silicon Valley or the Hollywood entertainment community. Seven years ago, for example, the Alliance of Motion Picture and Television Producers asked the governor of California to declare a state of emergency to help Hollywood find digital artists. There were people who were computer literate, they claimed, but they could not draw. In the new economy, they argued, such talents are vital to all industries dependent on the marriage of entertainment to computers and telecommunications.

...civic engagement and new civic "collaboratories" will be needed to help "reboot" or reinvent our great American cities...

Filmmaker John Hughes and Director of Artist Development and Training at Warner Bros. Dave Masters, put the blame for the shortage of digital artists squarely on the shoulders of the U.S. educational system. In our nation's zeal to excel in math and science, music and art were cut out of the curriculum. Now the U.S. ranks 17th in the world in math and science, and employers are going overseas to find the digital artists they need. In reality, the burden should not be put on education's doorstep, but on the shoulders of all Americans concerned with individual and collective success in a new know-ledge-based economy.

The Emergence of a Creative Class

The new economy's demand for creativity has manifested itself in the emergence of what author Richard Florida has termed "the Creative Class." He reports that some 38 million Americans, or 30 percent of the national work force, now belong to this class. Florida uses a broad definition of the Creative Class, considering a member anyone whose work function is to produce new ideas, new technology and/or new creative content. Hence, the Creative Class includes people in engineering and science, architecture and design, education, music, arts and entertainment. This class of creative individuals, Florida says, share a common creative ethos that emphasizes individuality, creativity, difference and

merit. As far as the members of the Creative Class are concerned, every aspect and manifestation of creativity, cultural, technological and economic, is inextricably linked.[2]

The core of the Creative Class is surrounded by a broader group of what Florida calls "creative professionals" who work in business and finance, health care, law and other related fields. These individuals engage in complicated problem solving that is characterized by a great deal of independent judgment and that requires high levels of education or intellectual capital.

...the Creative Class includes people in engineering and science, architecture and design, education, music, arts and entertainment. This class of creative individuals, Florida says, share a common creative ethos that emphasizes individuality, creativity, difference and merit.

The main difference between the Creative Class and other classes is best understood through the kind of work they perform. Members of the Working and Service Classes are paid mainly to execute according to plan, while those in the Creative Class are paid mainly to create the plan and subsequently have considerably more autonomy and flexibility than do the other two classes.[2]

The class structure of the United States and other advanced nations has been the subject of spirited debate for more than a hundred years. For a plethora of writers and thinkers in the 1800s through the mid-1900s, the main story was the rise of the Working Class. The mid-20th century brought the decline of the Working Class, which reached its peak at roughly 40 percent of the U.S. work force between 1920 and 1950, before beginning its long erosion to roughly 25 percent of today's work force.

For writers such as Daniel Bell and his contemporaries in the mid- to late 20th century, a second big story was the growth of a post-industrial society in which many workers shifted from making goods to delivering services. The Service Class, which contains such fields as personal care, clerical work and food service, grew steadily from approx-

imately 16 percent to 30 percent of the work force between 1900 and 1950, to more than 45 percent by 1980. The Service Class today is the United States' largest class in terms of sheer numbers, with 55 million members.[2]

...the Creative Class is the norm-setting class of the present era. However, its norms are markedly different: self-expression, individuality and openness to difference are preferred to the conformity and homogeneity that characterized the organizational age of the '50s and early '60s.

The big story at the present, one that has been materializing for some time now, is "the rise of the Creative Class, the great emerging class of our time." Although the Creative Class remains decidedly smaller than the Service Class, its vital economic role gives it the most influence. Like the Managerial Class of the 1950s, the Creative Class is the norm-setting class of the present era. However, its norms are markedly different: self-expression, individuality and openness to difference are preferred to the conformity and homogeneity that characterized the organizational age of the '50s and early '60s. Moreover, the Creative Class dominates in regard to income and wealth, with its members earning almost twice as much on average as members of the other two classes.[2]

The sacrifices today's workers will make for money are far different from those made by workers during the organizational age of the mid-20th century. Very few individuals in the present era will work for the same large organization or company for life. Additionally, workers today are far less inclined to allow their identities to be defined by the entities that sign their paychecks. The new economy is characterized by a work force that balances financial considerations against the ability to act as they wish, set their own schedules, perform challenging work and live in communities that reflect their values and priorities.

According to Florida, a recent large-scale survey of workers from information technology fields, a relatively conservative subset of the Creative Class, found that responsibility and challenge, the freedom to work a flexible schedule and

stable work environment all rank above money as the foremost elements that people value in their occupations. Creativity in the working world, however, is not the exclusive domain of the Creative Class. Factory employees as well as even the lowest-end service workers have always been creative in certain valuable ways. Moreover, the creative content of a number of Service and Working Class occupations is growing, a prime example being the continuous-improvement programs on the floors of many factories. These programs call on line workers to contribute ideas in addition to their physical labor.

On the basis of these trends, Florida expects the still-emergent Creative Class to continue its growth in the coming decades, as more traditional economic functions are "transformed into Creative Class occupations". He also believes strongly that the key to improving the plight of the underpaid, underemployed and disadvantaged members of our society lies not in social welfare programs or low-end make-work positions, nor in somehow bringing back the manufacturing jobs of the past. Rather, it lies in tapping the creative resources of these people, paying them appropriately for it and fully integrating them into the creative, knowledge-based economy.[2]

To be sure, not everything is rosy in the mainstream of this emerging age. With no large company to provide security, Creative Class workers bear much more risk than the Corporate and Working Classes of the organizational age did. They experience high levels of mental and emotional stress at the work place as well as at home. They demand flexibility, yet have less time to spend in pursuit of the things they truly desire. The technologies that were supposed to liberate people from work have now invaded their lives.

A Call to Action: The Arts Imperative

While Richard Florida did a huge service for those struggling to redefine their communities for the new knowledge economy by tracking these new migration trends and determining the likes and dislikes of the creative individuals that every progressive community seeks to attract, questions remain: What makes someone creative? 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 do we need to do to prepare the next generation of creative people? In short, what do we need to do to ensure that the arts, once again, are given the place in our lives that will enable a second great American century?

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 do we need to do to prepare the next generation of creative people?

Creative Communities in the Making

When Prashanth Boccasam founded a small software company in the fall of 2001, he could have remained in Houston, where he lived at the time. Instead, he chose to relocate Approva Corp. to the Tyson's Corner section of Washington, D.C., which had much more to offer culturally than Houston. It had become clear to him that the young, talented people he was trying to hire all wanted to reside in a place with a healthy and vibrant cultural life.

The decision paid off for Boccasam, who was able to attract a number of interns from Yale and Harvard because they wanted to come to D.C. — something he didn't figure he would be able to do if he had chosen to remain amid the strip malls and fast food restaurants that dominate the Houston landscape.[3]

Stories like Bocassam's are music to the ears of the D.C. area's economic development officials, who strive to market the region's cultural and quality-of-life offerings when trying to lure companies to the area. Experts around the nation are concluding that many of the most important factors in bringing jobs to a region are far removed from bottom-line concerns such as office availability and taxes. For models, they point to economic success stories like Seattle and Austin, metro regions that have lured companies and thousands of high-wage educated workers in the past 10 years largely because of the cultural advantages that the areas boast.[3]

In June of 2002, the Greater Washington Initiative, a coalition of government and business executives who market the region to outside firms, released a study that underscored the growing importance of culture to a region's attractiveness. The organization's 2002 Regional Report presented a variety of economic data for the D.C. area, but the group's main emphasis was on research showing that area arts organizations are enjoying $2.5 billion in new investment.[3]

Experts around the nation are concluding that many of the most important factors in bringing jobs to a region are far removed from bottom-line concerns such as office availability and taxes.

Some communities are more aggressive than others in promoting public art, developing community-wide arts programs and targeting the need for educational reform. While investing in the arts is a business in itself — a $134 billion industry, according to the Washington, D.C.-based advocacy organization Americans for the Arts — the real benefits, according to the National Governors Association (NGA), is that they are "a potent source for economic development."

Arts programs, the NGA argues, serve local communities immensely by "contributing to a region's 'innovation habitat,' thus improving quality of life — making it more attractive to the highly desirable, knowledge-based employees and permitting new forms of knowledge- intensive production to flourish." The NGA cites cities such as Philadelphia,

Charleston and Newark, which they say "have used the creation of arts districts as centerpieces in efforts to combat increasing crime and suburban flight by restoring vitality to downtown areas."[4]

NGA also applauds cities such as Austin, which "recognized early that its unique cultural environment was a competitive asset to the New Economy." The city persuaded the state legislature in 2000 to provide $158 million to support the arts in Austin; used revenue bonds to create new nonprofits such as a Mexican-American Cultural Center, a new State Theater and The George Washington Carver Museum and Cultural Center; and uses a hotel tax to raise $3.5 million annually for various cultural events in the city.[4]

Arts programs serve local communities immensely by "contributing to a region's 'innovation habitat,' thus improving quality of life —making it more attractive to the highly desirable, knowledge-based employees and permitting new forms of knowledge- intensive production to flourish."

Silicon Valley's "Cultural Initiatives" plan is equally impressive. After a year-long dialogue with more than 1,000 local individuals and groups about the role of art and culture in the region, officials concluded that the arts "help to preserve and expand new economy successes" and they set a goal to raise $250 million for "arts and cultural education, artistic and organizational development, community and neighborhood arts, as well as leadership and funding."[4]

Oakland also recently adopted a "Percent for Art Ordinance" plan, which authorizes the allocation of 1.5 percent of municipal capital-improvement project costs for commissioning of public artwork. These monies are set aside in the Public Art Program Fund to:

1) Enable artists to create artwork, which enlivens, enriches and enhances the quality of Oakland's visual environment and public spaces;

2) Integrate the creative thinking of artists into the planning and development of capital improvement projects;
3) Provide opportunities for artists that advance their careers and broaden their role in the community; and
4) Provide a means for citizens and visitors to express, enjoy and experience cultural diversity through the visual arts.

The mayor's office, which administers the plan, states its basic philosophy on the City's web site:

"Art can create a sense of identity for a city and individual neighborhood and a unified vision for the city. The best public art creates a unique place, a destination, and a focal point for activity, a meeting place, and a landmark. Public Art is a process where we invite artists to share their vision and creativity with the City and to surprise us with their own definition of what is possible."

Art can create a sense of identity for a city and individual neighborhood and a unified vision for the city.

Seattle is perhaps the preeminent example of a city whose leadership has had an inspired vision with regard to procuring the type of overall culture so coveted by creative people. The city's latest effort involves a growing consortium of private companies and government agencies that is revolutionizing the design and construction of everything from downtown skyscrapers to residential streets. For example, the Seattle Justice Center, which is approaching completion, will feature a "living roof" that will be covered with grasses and other green plants instead of metal or concrete. This will reduce the costs of cooling and heating the building (due to improved insulation), reduce the flow of storm runoff into Puget Sound, create soothing scenery for workers and visitors and provide habitat for birds.[5]

"Restorative redevelopment" is another of Seattle's current initiatives that is sure to be imitated by other cities in their efforts to become creative communities. Thirty-eight neighborhood plans are in various phases of implementation, and

almost all of them call for significant capital investments such as sidewalk and street improvements, as well as new or expanded community centers, parks and libraries. This brand of redevelopment will incorporate new approaches, technologies and products that are healthier for people and the environment and that emphasize the arts.

The Arts in Modern Education

Last year, the Los Angeles County Board of Supervisors adopted "Arts for All — a regional blueprint for arts education." The program's vision is for every public school student in the county to receive an effective K-12 education, of which the arts are an important component.

Until only recently, there has been very little evidence of the connection between education and appreciation of the arts and success in the post-industrial information economy and society. The evidence, however, is beginning to mount.

Each school district in the county 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 work force to meet the economic opportunities of both the present and future. Thus, sequential instruction in the multiple arts disciplines will be scheduled into each school day and accounted for in the budget of every county school district.[6]

The program's mission is to bring about systemic change in the 82 school districts in L.A. County in order to implement comprehensive, sequential K-12 arts education for every public school student in the county, adopting curricula in accordance with the State Board of Education-approved Visual and Performing Arts (VAPA) Framework and Standards. Such systemic modification will require the mobilization of diverse stakeholders, including policy makers and implementers and recipients of arts education.[6]

Until only recently, there has been very little evidence of the connection between education and appreciation of the arts and success in the post-industrial information economy and society. The evidence, however, is beginning to mount.

In the early 1990s, Robert Root-Bernstein, a biochemist and MacArthur prizewinner, completed a study of 150 biographies of eminent scientists, from Pasteur to Einstein. His findings were startling to those educators lobbying for more emphasis on the sciences. He discovered that nearly all of the great inventors and scientists were also musicians, artists, writers or poets. Galileo, for example, was a poet and literary critic. Einstein was a passionate student of the violin. And Samuel Morse, the father of telecommunications and inventor of the telegraph, was a portrait painter.[7]

More recently, a team of researchers from the Center for the Neurobiology of Learning and Memory, at the University of California at Irvine, completed a nine-month study of three-year-old children in two Southern California childcare centers that demonstrated that early training in singing and playing musical instruments stimulates the brain in preschool children and enhances learning.[7]

The goal of education should be understanding rather than merely knowing, and the active process of learning rather than passive factual acquisition, should be its focus.

UC Irvine subsequently expanded its experiment to include college students. Their findings suggested that listening to ten minutes of Mozart's piano music immediately prior to taking an intelligence test dramatically improved the students' performance. The study's results, which were published in the British scientific journal *Nature,* revealed that the students' test scores were a mean of eight to ten points higher with Mozart than they were when the students had listened instead to prerecorded relaxation messages.[7]

Michele and Robert Root-Bernstein, co-authors of *Sparks of Genius,* conducted extensive research into the minds of

inventive people and showed that creativity can be encouraged and enhanced through the exercise of thinking tools coupled with a desire for what they call "synosia" —a unified understanding linking mind and body, sense and sensibility. Regrettably, those elements are presently lacking in most curricula.

The goal of education should be understanding, the Root-Bernsteins argue, rather than merely knowing, and the active process of learning rather than passive factual acquisition, should be its focus. For example, it is possible to know about the principles of physics or literature without having to use them; however, being able to use them is not possible without an understanding of how they function in nature and human affairs. Students must go beyond the mere analysis of the products of creative understanding, such as poems, novels, theories, experiments, dances, paintings and songs. They must imitate and copy them to gain an understanding into the synosic and sensual processes that led to their invention.[8]

In every field, inventive thinking originates in nonverbal, nonlogical forms. All students should be given early and ongoing stimulation of aural, visual and other senses and be taught to imaginatively recreate sense images. They should learn to abstract, empathize, analogize and translate intuitive forms of knowledge into numbers, words, plastic images, sound and movement. In some instances, feeling and sensing are communicated most naturally as literary, visual or musical expressions. Undoubtedly, the arts in a liberal arts curriculum are important in that they provide the most effective and, in some cases, the only exercise of many tools of thinking —both in expression and imagination.[8]

The Marriage of Art and Science

Arts and sciences often interact in very productive ways that too often are overlooked, thus the glaring need for multidisciplinary education that lifts the arts onto an equal footing with the sciences. Starting in kindergarten and progressing through higher education, all students should study the arts as completely as the sciences, the humanities and mathematics. This would entail reversing the marginalization of the arts in secondary schools and colleges across the country. The arts are not merely for self-expression or entertainment; rather, they are disciplines as rigorous as mathematics or medicine. They possess their own bodies of knowledge, tools, techniques, philosophies and skills. Furthermore, because the imaginative tools used in the arts are critical to the sciences and humanities, they are owed support not only for their own sake but also for the sake of education collectively.

Throughout history, science, math and technology have flourished only where and when all the arts have flourished. No evidence exists that this will not be the case in the future.

Tools for thinking originate from this core, providing a common vernacular with which practitioners from different fields may share their experiences in the process of innovation and reveal connections between their creative activities. When the same terms are used throughout the curriculum, students begin to forge links between different subjects and classes, and in so doing; they begin to learn how to think beyond disciplinary boundaries.[9]

Arts and sciences often interact in very productive ways that too often are overlooked, thus the glaring need for multidisciplinary education that lifts the arts onto an equal footing with the sciences.

A common creative language by itself is not enough, however. We must emphasize disciplinary learning's transdisciplinary lessons. One hundred years of educational research has demonstrated that students are far more likely to

retain and apply what they have learned if skills and information are taught as generally useful rather than as unique solutions to unique problems. Instructors should downplay labels such as music, art and science that situate knowledge in insular boxes and instead focus on the ways in which the same material can be used flexibly across a number of disciplines.[9]

In order to reach the broadest range of minds, ideas from every discipline should be presented in many different forms. There is no single creative technique or imaginative skill that is adequate for all thinking requirements. Every idea can and should be transformed into numerous equivalent forms, each of which possesses a different formal expression and emphasizes a different group of thinking tools. The more ways students are able to imagine an idea, the greater their chances of insight, and the more ways in which they can express that insight, the greater the chances that others will be able to understand and appreciate it.[9]

Throughout history, science, math and technology have flourished only where and when all the arts have flourished.

Harvard professor Howard Gardner, author of the seminal research and findings first published in the book *Frames of Mind,* discovered almost a decade ago that we learn not just through the linguistic and mathematical methods of traditional schooling but through seven intelligences: logical/mathematical, verba-linguistic, visual-spatial, bodily-kinesthetic, musical-rhythmic, intrapersonal and interpersonal. He recognized one of the primary intelligences is music intelligence and argued that music should be infused throughout the curriculum as opposed to being taught in isolation. Gardner says the same should be done with dramatic performance.

Perhaps as a consequence of such research, various practical applications are also springing up throughout the country. More than ten years ago, in the poorest congressional district in the nation, New York's South Bronx, the start of

something profound was first reported in a PBS special documentary. In a place where only one in four children once graduated, a small school called St. Augustine boasted that 95 percent of its students read at or above grade level, and 95 percent meet New York state academic standards. All this despite a student population that was 100 percent minority, with many of the children living in single-parent homes in communities plagued by AIDS, crime, substance abuse and violence.[9]

What was the secret of St. Augustine's success? The school built its entire curriculum around dance, music, creative writing and visual arts. Even its science classes used the arts to illustrate research and lab experiments, while history came to life through the re-creation of events using period music and costumes.[9]

...one of the primary intelligences is music intelligence and music should be infused throughout the curriculum as opposed to being taught in isolation.

According to Dr. Sue Snyder, founder and president of IDEAS, a multifaceted organization dedicated to educational excellence in and through the arts, St. Augustine's music-oriented curriculum required every student to take music appreciation, chorus and an instrument every day, in addition to a full load of other academic subjects. The discipline and structure resulted in increasingly higher achievement on mastery tests, as well as increased self-esteem.

There are many variations on the St. Augustine model in existence today across the United States, and similar results are documented over and over. The arts-infused curriculum results in increased student self-esteem, attendance and enjoyment of school and often leads to higher mastery test scores.[9]

The National Endowment for the Arts is also committed to the notion that art education needs to be emphasized in the curriculum of our schools. Starting with a $250,000 grant in the mid-1990s to the Westchester Arts council, a program called Arts Excel began to take shape. During three days of workshops at Manhattanville College in Purchase,

N.Y., 200 teachers and school administrators learned how the arts could be used to teach history, science and math. They then began the process of developing a new art-infused curriculum. Helping them launch the program throughout Westchester County schools were 65 individual artists as well as 21 local arts organizations.[9]

The arts-infused curriculum results in increased student self-esteem, attendance and enjoyment of school and often leads to higher mastery test scores.

Since that time, as Dr. Snyder has found, efforts to integrate the arts into the curriculum have taken root and succeeded in schools like Elm Elementary in Milwaukee. In the bottom ten percent in 1979, Elm is now No. 1 out of 103 schools in the district and has been for eight of the last ten years since introducing arts education. Eliot elementary in Needham, Mass., has had similar success. Since integrating art into the curriculum in 1983, test scores for average third-grade students in racially diverse schools have risen to the 99th percentile.

In Connecticut, the state's Commission on the Arts designed the HOT Schools program — HOT stands for Higher Order Thinking — to transform entire school communities throughout the state. The arts, and particularly writing, play a central role in this change process according to IDEAS researchers working with the state. School culture focuses on student needs and celebrates each child's accomplishments by sharing it with the larger school community. Schedules become less important than teaching for understanding, parents are welcomed into the school, and curriculum is flexed to meet the needs of the learner.

The Commission initiated this innovative program in 1994 with funding provided by state legislative appropriation and the National Endowment for the Arts. Starting with six elementary schools, the HOT Schools program today includes 24 schools from across Connecticut involving more than 5,000 students and 500 educators. Across the country, in those schools where art has been integrated into the core curriculum, the results have been positive.

While too few school districts have championed more serious undertakings, San Diego, is currently engaged in the 4th year of another bold experiment in art and culture in education. Called "School in the Park"(SITP), it is a unique collaboration between San Diego State University, the San Diego Unified School District, the San Diego Education Association and Price Charities founded by Sol Price, also founder of Price Clubs, an international chain of big box discount stores.

SITP has targeted three schools in City Heights, one of the most diverse communities in the nation with more than 75,000 people, many newly immigrated, representing 40 different cultural groups, speaking over 32 different languages and over 100 dialects. An area only 3000 acres in size, it has been plagued by gangs, unemployment and poor academic performance. In fact, when the experiment began in 1998, Rosa Parks Elementary ranked 6th out of ten "comparison" schools in the state of California. Last year Rosa Parks ranked 1st and has more than doubled its growth target each year since inception.

According to Don Bacigalupi, Executive Director of the San Diego Museum of Art, one of ten museums that are part of the Balboa Park collective, while one of the goals of the Collaborative, is to increase standardized test scores, the success of the testing is but one " positive symptom of what we know is an effective means of teaching through arts-inflected curriculum". Thus by providing the "connections" between art and science and drama and the " other experimental learning opportunities within the museums" in the Park, SITP stands out among arts-infused programs in the country.

With over 800 students and ten museums participating, coordination is complicated as SITP is much more than a series of isolated "field trips". It is rather a highly integrated curriculum involving both museum and school educators and mentors and aides who provide almost daily, a rich and diverse variety of experiences during the instructional year. While the test scores are certainly ample evidence of success, the program evaluations are also showing that City Heights students

are exhibiting confidence and maturity exceeding children of similar age and experience. Importantly too, they appear to have either acquired or are acquiring what educators the world over hope most for their students: a "joy for learning".

As a recent report about the SITP program concluded, while "not every school has the opportunity to be graced by a powerful benefactor…each community does have exciting places that can naturally be used in which challenging curricula can be well taught and deeply learned."

The Role of Technology

The way in which information is delivered in classrooms today is, in many cases, also a cause for concern. Students are still herded into classrooms where teachers stand at the front delivering education mouth-to-ear. It isn't long before the students start losing interest. James Dezell, former president of IBM's Education Division, explained in a speech he gave to the San Diego Communications Council in 1993 that attention "goes up when we show a picture or provide audio-visual stimulation. We know too that learning efficiency goes off the chart when the student asks a question or begins to interact."

Many observers are not surprised by developments such as these, for they realize the value of arts in education. They understand that there exists a distinct neurological link between the left and right brain, between art and physics, music and math, and they see the importance of whole-brain thinking in the post-industrial information age.

One example of an institution of higher education that is committing itself to preparing its students for the challenges of the new millennium and the information age is The University of California, San Diego, which recently opened the Sixth College. The new college's themes are art, culture and technology. Students will study the progress of the human

species and their cultures and will explore watershed events in history in which art, culture and technology converged. Provost Gabrielle Weinhausen said, for example, that during the Renaissance, the rediscovery of perspective enabled architects and artists to collaborate on the creation of maps. The key to studying events like that, according to Wienhausen, is learning how to ask the questions that illustrate relationships and patterns.[10]

Sixth College students, similar to the those of the other colleges within the University, can major in any field of study, but every Sixth College student will be required to complete a core curriculum focused on writing and human civilization. Instructors from different disciplines will team up to teach some core classes, offering students more varied perspectives and materials. For example, visual arts professors will collaborate with history professors, while linguistics professors will be paired with anthropology instructors.[10]

Students will study poems, hieroglyphics, children's essays, newspaper advertisements, a patent, and grant applications and blues lyrics, among dozens of other writings. The goal here is for students to realize that writing is a design, indeed, an art form.[10]

In addition to all of its focus on critical thinking and culture, the Sixth College will place equal priority on the exploration of how people will interact and learn in the future. Each new student will be given a Hewlett-Packard personal digital assistant (PDA) equipped with mapping software and a wireless Internet connection that will enable students to browse the Internet and send instant messages to their colleagues and instructors from virtually any corner of the campus.[10]

Officials of the Sixth College, the only UCSD College that employs a chief technology officer, hope that the PDAs will help make it easier for students to communicate, thereby making the campus environment feel more intimate. They also intend to monitor how students use their devices, in order to develop more effective future lesson plans.

Eventually, the hope is that the PDAs and other technological advances will give students the means to work more efficiently, such as by having the ability to be instantly notified when requested books become available at the library or if an instructor becomes free for an unscheduled meeting.[10]

Developments such as this are a result of the powerful evidence that developing the human mind to its fullest potential and educating people so they are capable of success in the information age requires that we rethink the role of art and technology in learning. Unless we restructure education and rethink the importance of technology to enhance art appreciation, extend art education and reform education through the arts, we will not develop the skill base we so desperately need in the work force of the new millennium.

The Message for Cities of the Future

The civic formula for encouraging economic development used to be simple: Send out representatives to persuade a few big companies by pointing out cheap labor, low taxes and convenient transportation options, then sit back and watch the investment capital flow in. But in the updated language of economic development, the keys to producing desirable growth are things like eclectic coffeehouses, a thriving local music landscape, large immigrant populations and bustling urban parks.[11]

David Birch, the president of Cognetics Inc., advises companies on where to locate. In the past, firms generally selected locations for new factories or offices based on where doing business was cheapest. Not any more, according to Birch: "The cities growing fastest right now have the highest taxes, most expensive workers, most expensive land...To say you just want the cheapest worker is an old way of thinking. What you really want is a talented labor force, not the least expensive labor force.[11]

Bruce Katz, director of the Center on Urban and Metropolitan policy at the Brookings Institution, correctly points out that the country's outlying suburbs,those replete with the strip malls and tract homes that creative young people tend to shun, have grown more rapidly than most quirky urban environments. However, that does not discount the potential of a lively, diverse city attracting a highly educated, upwardly mobile work force. According to Katz: "What cities have to do is play to their strengths and develop the assets that make them distinct. Those things are their amenities and their lifestyle, like nightlife and cultural institutions."[11]

Cincinnati, which has been plagued by a slumping downtown, ongoing racial unrest and continued negative national publicity, is now looking to Austin, which bills itself as the Live Music Capital of the World in its economic development efforts, for ideas that may assist in its revitalization. The City Council, along with the Greater Cincinnati Chamber of Commerce, are putting their full support behind the Midpoint Music Festival, an annual showcase of local and regional rock bands modeled after Austin's "South by Southwest" music festival, which many believe helped turn Austin into a destination for the Creative Class, and not coincidentally, a booming technological hub.[11]

Many feel that Albuquerque is moving toward becoming a creative community, thanks in no small part to civic leaders' efforts to cultivate the arts and entertainment scene, particularly downtown. Their vision is for the downtown arts district to resemble what Florida calls the "third place", not home, not work, but where creative professionals can go for stimulation. Rob Dickson, an Albuquerque businessman and Austin transplant, emphasizes the importance of revitalizing downtown: "Downtown, that's the heart and soul of the community. It's the city's living room."[12]

And in Chicago, it's the Chicago Humanities Festival. Since 1990, world-renowned authors, scholars, poets, policy makers, artists and performers have gathered each November at Chicago's many cultural institutions to celebrate the

power of ideas in human culture. And each year, tens of thousands of enthusiastic audience participants rediscover the rich and vital role the humanities play in their daily lives.

It is becoming increasingly apparent that initiatives such as these will be the hallmarks of the most successful 21st century cities and regions. While many of the straight and staid cities of the manufacturing age atrophy, the areas placing a premium on cultural, ethnic and artistic diversity will likely burst with entrepreneurial fervor.

Conclusion

The message is becoming clear: rather than economic stimulus tools such as subsidies for footloose corporations and taxpayer-underwritten industrial parks, the successful cities and metro areas of the 21st century will be stimulated by their attractiveness to young, talented people. The push to lure big corporations and build large factories was characteristic of the 20th century economy.

**The prize of the future will be the ability to attract the type of bright and creative people that generate new inventions, world-class products and the finance and marketing plans to support them.
As Hewlett-Packard CEO Carly Fiorina recently told a panel of governors, "Keep your tax incentives and highway interchanges; we will go where the highly skilled people are."**

The prize of the future will be the ability to attract the type of bright and creative people that generate new inventions, world-class products and the finance and marketing plans to support them. As Hewlett-Packard CEO Carly Fiorina recently told a panel of governors, "Keep your tax incentives and highway interchanges; we will go where the highly skilled people are."[13]

Syndicated columnist Neil Pierce believes, the future will see "the Creative Class seek out cultural variety", neighborhood art galleries, eclectic music venues and exciting nightlife. Many of them will tend to choose active, participatory recreation rather than passive forms. They will favor cities that have myriad possibilities for outdoor recreation rather than just professional spectator sports. The premium placed on authenticity, real and historic neighborhoods and natural settings, will continue to grow. In general, strong growth of high-tech infrastructure and industry has been characteristic of cities that embrace and promote all manner of artistic expression and cultural diversity. In the global information age, Pierce says, "Cities that ignore these new signals will likely be stragglers in the economic race."[13]

Endnotes

1. Eger, John M. "Cyberspace and Cyberplace: Building the Smart Communities Of Tomorrow." San Diego Union-Tribune, Insight, 1997.

2. Florida, Richard. *The Rise of the Creative Class.* New York: Basic, 2002.

3. Irwin, Neil. "City's culture brings talent, then companies." *The Washington Post* (June 7, 2002): E1.

4. "The Role of the Arts in Economic Development." Issue Brief, The National Governors Association (June 25, 2001).

5. Nicholas, S. "Sustainable Seattle." *The Seattle Post-Intelligencer.com* (August 11, 2002): http://seattlepi.nwsource.com/opinion/81525_focus11.shtml

6. "Arts for All: Los Angeles County Regional Blueprint for Arts Education." Los Angeles County, 2002. http://lacountyarts.co.la.ca.us/artsedu_artsforall09-02.pdf

7. Eger, John M. "Art and Technology." Keynote Address presented to The Fifth Triennial International Conference on The Arts in Higher Education, International council of Fine Arts Deans in Madrid, Spain (November 4, 1993).

8. Root-Bernstein, Michele & Robert. *Sparks of Genius.* Boston: Houghton Mifflin, 1999.

9. Eger, John M. and Gattas, Joyce. "Music, the Arts are essential to Learning." The San Diego Union-Tribune (January 30, 1994).

10, Yang, Eleanor. "A new school of thought at UCSD." *The San Diego Union-Tribune* (September 23, 2002): B1, B3.

11. Nager, Larry. "Leaders getting into groove." *The Cincinnati Enquirer.com* (August 31, 2002): http://enquirer.com/editions/2002/08/31/loc_leaders_getting_into.html

12. Della Flora, Anthony. "Arts transplant N.M.'s cultural affinity to urban revival." *The Albuquerque Journal.com* (2002, October 27): http://www.abqjournal.com/AED/792854venue10-27-02.htm

13. Pierce, Neil. "Lively economies require lively cities." *The Washington Post* (June 9, 2002).

About the Author

John M. Eger is the Van Deerlin Professor of Communication and Public Policy at SDSU, Executive Director of SDSU's International Center for Communications, the California Institute for Smart Communities at SDSU and President of the World Foundation for Smart Communities, a nonprofit educational organization founded to promote the concept and facilitate the implementation of "smart communities" worldwide.

Earlier, he was Senior Vice President of the CBS Broadcast Group. From 1973-1976, he was Advisor to Presidents Richard Nixon and Gerald Ford and Director of the White House Office of Telecommunications Policy (OTP).

More recently he served as Chairman of Governor Pete Wilson's first Commission on Information Technology; and Mayor Susan Golding's "City of the Future" Commission.

The California Institute for Smart Communities

The California Institute for Smart Communities is a program of the International Center for Communications at San Diego State University. The underlying vision and mission of the Center is to redefine traditional notions of community, locally and globally, and explore ways to link thosecommunities together through the application of communications technology,and to the principles of free trade and the free flow of information.

The work of the California Institute is dedicated to research and study of 21st century communities; and is focused on the inextricable link between communications; social and economic development and the fundamentally important mission of helping communities renew and reinvent themselves for the rapidly evolving knowledge-based economy.

The Center's location in San Diego/Baja California Region brings together the resources of San Diego State University, a dynamic local communications industry and infrastructure, and a multicultural population.

THE CREATIVE COMMUNITY

FORGING THE LINKS BETWEEN ART CULTURE COMMERCE & COMMUNITY

The California Institute for Smart Communities
San Diego State University
5500 Campanile Drive
San Diego, California 92182-4522
619.594.6900 jeger@mail.sdsu.edu