

# POWER UP:

The Campaign for Digital Inclusion



## Digital Inclusion Imperatives Offer Municipalities New Social and Economic Opportunities

A white paper by Maria E. Wynne and Lane F. Cooper

[www.microsoft.com/digitalinclusion](http://www.microsoft.com/digitalinclusion)

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## Introduction

It has been roughly a decade since the term “Digital Divide” was first introduced into national public policy discourse as an issue that materially affects the social, cultural, and economic well-being of the United States. The Digital Divide denotes the gap between information technology haves and have-nots. In those early years of the information age, experts in both the public and private sectors questioned the impact of this divide on society—what would happen to those left out of digital life—the “have-nots”?

Since then, access to information technology has become a socio-economic given. Yet, little progress has truly been made in making technology accessible to everyone. It is a fact that those who have online access and are digitally literate are more likely to be economically secure and at less risk than those who do not. State and local government officials are increasingly aware that the concept of an effective “Digital Inclusion” strategy is one of the most significant challenges they face. Efforts to democratize access via Municipal Wi-Fi efforts or related broadband initiatives are under way all across the nation. Access alone, however, does not equal Digital Inclusion. Governments must now actively pursue broader initiatives to meet the challenge.

## The Digital Inclusion Solution

As mayors, city managers, policy makers, and community leaders consider how to bridge the Digital Divide, the concept of a Digital Inclusion strategy is emerging as a powerful means to achieve meaningful success for those who, for whatever reason, have been left out. A handful of cities across the country (including Miami, Minneapolis, Philadelphia, Chicago, San Francisco, Boston, San Diego, and others) are engaged in innovative efforts to implement comprehensive Digital Inclusion plans.

*“We are looking for a set of strategies that address the barriers that underserved members of the community must overcome. Some people simply talk about providing the infrastructure and access to technology. But what we really need to develop is a strategy that leads to social inclusion using technology.”*

- Catherine Settanni, Executive Director, The Community Technology Empowerment Project

*“I think there can be many successes along the road. The twists and turns on the road are going to be as dynamic as innovation is in technology. It requires a constant effort for a variety of people to be at the table who understand the dynamics of technology and who want to ensure that everyone who is interested in participating has the support to do so. But it should not just be looked at as just an effort to ensure that there is connectivity in all neighborhoods, and to reach back to bring along the disconnected. Instead, we believe that bridging the Digital Divide should be a by-product of a citywide, multisector campaign to actually achieve a state of Digital Excellence that establishes universal and meaningful participation.”*

- Julia Stasch, Chair of the City of Chicago Mayor’s Advisory Council on Closing the Digital Divide

This report explores some of the key issues that municipal leaders must address, and outlines some of the early best practices that are emerging in the effort to plug our children, our elderly, our disabled, our immigrants, and other economically disadvantaged groups into digital society.

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## Documenting the Digital Divide

Nationally, 68% of Americans have access to and make regular use of the Internet, according to the most recent report from the Pew Internet & American Life Project, a respected and independent research organization. This is a remarkable penetration when one considers that the information age is less than two decades old. However, a closer look at this figure reveals that access and use of the Internet is not evenly distributed throughout society, and that specific segments of the population are effectively left out. For instance:

- 57% of African Americans are online
- 38% of Americans with disabilities are connected
- 37% of Hispanics have access
- 29% of people who have not graduated from high school are connected
- 26% of people who are over age 60 are online

While the numbers underscore who is left out, they fail to describe the complexity of the problem. Each of these groups, each individual, experiences different levels of exclusion and its consequences as a result of being disconnected.

*"The problem is not a binary one. It is not a question of being connected or disconnected. As such, the best initiatives address more than inclusion, they address Digital Empowerment, Digital Opportunity, Digital Equity, or Digital Excellence. These programs recognize that technology is a tool, but more and more it's a central tool for education, economic development, and social well-being. People may start as very basic users who simply need access to resources at a Community Technology Center (CTC) or library. Digital empowerment refers to the ability to use the wealth of resources in computing and the Internet to learn, communicate, innovate, and enhance wealth—to move from being a digital novice to a digital professional or innovator. An effective Digital Inclusion strategy provides a path to full participation in Digital Society."*

- Karen Archer Perry, Founder and Principal Consultant, Karacomm

*"In Chicago, we are working very closely with the Departments who serve our aging and disabled citizens to make sure that we take steps to specifically include them in our efforts to bridge the Digital Divide. The city, like every other part of the country, is seeing a great surge in the 'over 50' segment of the population. Regardless of income, as this demographic continues to age, we need to make sure that information technology they need is available to them in a format that they can work with. This means, for instance, making the Web sites that we create for them easy to read and simple to navigate."*

- Hardik Bhatt, CIO, City of Chicago

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## Bridging Digital Divide Emerges as Mainstream Issue in Economic Development

The implications of this divide are dramatic at an individual level. Computer literacy is now a growing requirement for all kinds of jobs, including occupations traditionally considered “blue-collar.”

- Manufacturers now task line workers with capturing, entering, and analyzing information about the process to remain competitive in a global economy.
- Retailers (including restaurateurs) now make extensive use of information technology to help keep inventory levels low and customer satisfaction high.
- Construction workers are being tasked to use computers to track materials and improve site safety.

*“It is nearly impossible to even apply for entry-level employment without having basic digital skills and Internet access.”*

- Greg Goldman, CEO, Wireless Philadelphia

*“Digital Inclusion has traditionally been seen as a sort of charity initiative. But that is rapidly changing. Increasingly, cities of all types—urban, suburban, and rural—are linking universal digital access to economic development imperatives. Now it is more about creating subscribers. It is still about giving people an opportunity to take care of themselves, but now it is also seen as a way for individuals in the community to make a greater contribution to society more effectively.”*

- Karen Archer Perry, Founder and Principal Consultant, Karacomm

Without access to the Internet, it is increasingly difficult to become aware of new job opportunities; newspapers, for example, are losing classified advertising business to online publishers. At a national level, a growing number of experts predict that a lack of digital literacy will have a dampening impact on economic prospects. Consider that in the next eight years, according to *Monthly Labor Review Online* (November 2005 p.6) six out of every 10 new jobs will be in professional and service-related occupations requiring, at a minimum, a basic level of proficiency in computers.

State- and local-level governments are engaged in a fierce competition to attract businesses and create an environment conducive to hosting a middle-class workforce. Regions that do not have the infrastructure and the locally trained talent to support the needs of prospective private sector entrants are left out of the short list of potential business destinations. Economic advantage and competitiveness will rest heavily on our ability to equip the 21st century workforce with competitive digital literacy skills.

*“Over 30 percent of the population in Miami is at or below the poverty line. To be competitive in a global economy and digital world... we need to raise the skill sets of all citizens in all communities in the Miami area. Digital Inclusion gives those who cannot afford access to the necessary technology and tools a practical and meaningful way to become familiar with and adaptable to the realities of the 21st century.”*

- Jim Osteen, Assistant Director, Information Technology Department, City of Miami, Florida

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## Digital Inclusion Must Be Integrated into Delivery of Established Social Services

The imperative for cities and counties to implement effective and comprehensive Digital Inclusion strategies is not solely tied to economic issues. Government agencies are advancing their own e-government initiatives to improve citizen services and optimize operational efficiency. Even the most stressed municipal governments are turning to technology as a strategic element in their efforts to reinvigorate their communities. As a result, a growing number of services are being offered to the public online. These include:

- Motor vehicle registrations and licenses
- Financial assistance
- Food assistance
- Housing programs
- Training opportunities
- Recreational facilities and programs
- And many more

Ultimately, the Digital Divide is not only a barrier to accessing technology resources; it is increasingly an impediment to how the most vulnerable citizen receives vital social services. A “day in the life” of the 21st century citizen is a connected life—it is no longer an option not to have access.

This is why a comprehensive Digital Inclusion strategy is vital to the future effectiveness of municipal government and community services. A sure path to failure exists when a tactical, stand-alone program to simply enable connectivity is pursued—conquering the divide requires more.

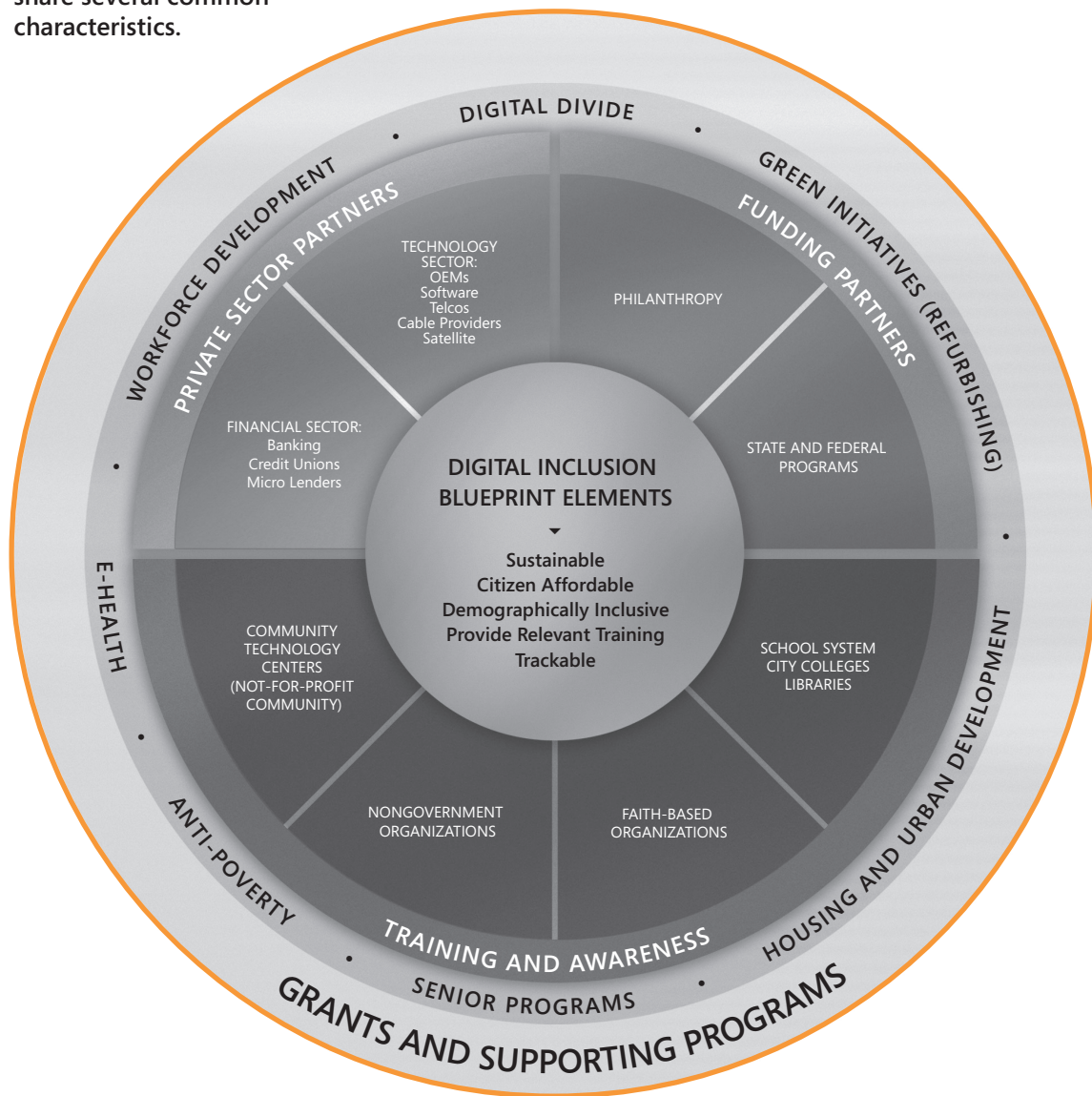
*“We believe that it is extremely advantageous to utilize existing programs, organizations, and structures that already engage low-income and other under-served groups. In fact, these agencies’ institutions provide a foundation upon which to develop the strategy of ‘presumptive eligibility’ so that we can rapidly identify and address the needs of those on the other side of the Digital Divide. If you are a person who receives food assistance or Social Security benefits, or are a child in a foster care family, you should automatically qualify to participate in the Digital Inclusion program.”*

- Greg Goldman, CEO, Wireless Philadelphia

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## Getting Started: Elements of a Successful Digital Inclusion Blueprint

Different municipalities will establish different goals and objectives for their Digital Inclusion initiatives based on local priorities and available resources. Nevertheless, a review of current programs reveals that the most successful initiatives share several common characteristics.



Source: Maria E. Wynne, Senior Director of the Office of Economic Development and Innovation

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## Strong Public/Private Partnerships

Programs that have been inclusive in their approach to engaging community partners appear to enjoy the highest levels of success. The support of the public/private-sector partnerships, the philanthropic community, and other not-for-profit organizations in the community, along with strong relationships with the board of education and higher-level institutions, build a sustainable infrastructure that provides a variety of access alternatives for citizens. In key cities, links with the school system help to ensure the sustainability of an enduring Digital Inclusion strategy.

*"In Miami, we are forming effective public/private partnerships to assist us in meeting the mission of allowing low-income families, children, our elderly, and others to have information resources readily available in public spaces and, ultimately, in their homes."*

- Jim Osteen, Assistant Director, Information Technology Department, City of Miami, Florida

## A Committed Multidisciplinary Team

Many of the most successful Digital Inclusion initiatives begin with appointing a mayoral task force or internal working group. Later on, these efforts are transitioned to a 501(c)3 charitable organization with a mission focused on carrying out the execution and expansion of the city's Digital Inclusion plan. An assembled board of directors for these efforts often consists of:

- Senior city officials
- Major technology players in the community
- Advocates/representatives of underserved citizens
- Economic development agencies
- Health care providers and clinics
- Major financial sector players
- Chambers of commerce and entrepreneurs
- School system members
- Public library system leaders
- Academics
- Not-for-profit executive directors (technology centers)
- Foundation executives

*"It is important to have all of these different points of view in the room to make sure the program keeps an appropriate focus on the target audiences. It is easy to get caught up in the cost issues or the technology-access issues. But the more closely you work with youth, with non-English-speaking immigrants, with the unemployed, or the elderly, the more you realize how important it is to keep outreach, education, and training during the planning process. All of these issues need to be represented when developing these critically important Digital Inclusion task forces."*

- Catherine Settanni, Executive Director, The Community Technology Empowerment Project

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## Affordable Access to Technology

The programs that we reviewed have all developed an integrated set of phased strategies to bring hardware, software, and Internet-access services to their underserved communities. There are many ways to achieve this affordability. Some cities have integrated their “technology refresh” strategy into the Digital Inclusion initiative, so that when they replace desktop and networking technologies in their offices, the old assets are refurbished and reconfigured to be placed in public facilities or offered at significant discounts to qualified residents.

Other cities are using their buying power to negotiate bulk buys from technology suppliers and thus make technology more affordable. Many are finding partners in the financial sector willing to take a risk on at-risk populations to help them establish credit via installment-driven programs of ownership. There have also been creative approaches incorporating the use of family tax credits to enable acquisition. Ultimately, the goal is to provide models that make citizen-owned programs a reality to even the most underserved. These affordability programs should provide an opportunity to acquire technology in an affordable way and help citizens establish credit along the way.

*“We have reached out to companies like AT&T, Comcast, and Microsoft to provide low- or no-cost technology. The City of Miami—the municipal government—contributes refurbished hardware. We replace 25 percent of our desktops every year as part of the city’s regular technology refresh initiative. We used to auction our old technology to the public for \$5, \$10, or maybe even \$15 per machine. But the light bulb went off, and we realized that this could be a continuous source of new hardware for the Digital Inclusion program.”*

- Peter Korinis, CIO, City of Miami, Florida

*“My research indicates that people who are new entrants to computers and the Internet need three things: advice on getting a new or used computer that will meet their needs, the ability to pay for the PC and Internet service at an affordable monthly rate, and a relationship with a trusted source like a school, library or community center that will help provide basic training, local technical support, and direction around some great applications, such as educational resources, photo sharing, or music/video production.*

- Karen Archer Perry, Founder and Principal Consultant, Karacomm

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## Targeted Training

Just as providing books to people who cannot read does not solve functional illiteracy, simply offering access to technology does not bridge the Digital Divide. Community technology centers, tutoring, and other educational initiatives must be a vital part of a Digital Inclusion initiative. Moreover, the curriculum must be broad in scope, while at the same time fulfilling the needs of targeted audiences. The goal is to equip the targeted population with the digital skills needed to either enhance employment opportunities or, as in the case of the disabled or the elderly, to positively impact their daily lives with relevant access skills. The underserved community should learn to see access to digital resources as a way to improve their economic, social, and cultural lifestyle.

*“Training can be basic and as straightforward as possible. But it absolutely needs to be audience oriented. Seniors, for instance, need a different training curriculum than sixth-graders.”*

- Karen Archer Perry, Founder and Principal Consultant, Karacomm

*“Appropriate content is a big issue for underserved communities. If training materials are not readable (leaving out the elderly), or available only in English (leaving out immigrants), or irrelevant to the target market’s social situation (such as youth), then you will limit the success of the program. Here in Minneapolis, as we address the access issues, we are focusing to develop community-specific resources that are designed to really stimulate use of technologies that are not currently using it.”*

- Catherine Settanni, Executive Director, The Community Technology Empowerment Project

## Long-term Sustainability

Digital Inclusion initiatives should be seen as a long-term—perhaps even permanent—dimension of a community’s offerings to its citizens. To that end, it is important to identify multiple financial sources and engineer a service delivery structure that is not subject to changes in political winds or one-time infusions of cash. Long-term sustainability is the critical success factor to providing prolonged access to economic opportunity in the digital economy of the 21st century. For city and state governments, it is the opportunity and the challenge that will influence economics, policy, and politics.

*“Couching these efforts as simply Digital Inclusion alone can actually diminish the appeal of multiple sectors. I believe that you will have many more segments of a local society interested in signing up for an effort that goes to the core of their self-interest, which is why we think the concept of Digital Excellence is gaining so much traction. The concept is not just for some segments of the population... it is for everyone. The focus on a citywide goal—as opposed to simply addressing the inclusion of excluded populations—is going to be more persuasive and sustainable in the long run.”*

- Julia Stasch, Chair of the City of Chicago Mayor’s Advisory Council on Closing the Digital Divide

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## Metrics for Accountability

The saying goes that “you cannot manage what you do not measure,” and that you must “inspect what you expect.” All of the pertinent goals set at the outset of a Digital Inclusion initiative should be tied to specific metrics that can be tracked independently by key stakeholders. Clear definition of the program’s goals, objectives, and timelines will be key to short-term evaluation of progress and success. Governments that commit to holding themselves accountable are more likely to be successful. They may also be less prey to the allure of self-congratulation on efforts that, although well intended, may have little impact. This challenge is not about small efforts. The challenge of Digital Inclusion is about thinking big and setting goals, fearlessly, that will stretch governmental entities to shoot for ambitious yet attainable goals. When government takes the lead in setting aggressive goals, private sector and community partners will follow.

## Digital Empowerment Awareness Campaigns

Many of the digital “have-nots” know the benefits of getting connected. Those individuals and families are looking for affordable pricing and support that enables them to bridge the Digital Divide. Others have an outdated image of the value that information technology can bring into their lives. Any strong program needs both a professional marketing program and a more viral community outreach program that helps residents, particularly those from underserved communities, understand the personal value they can derive from an investment in information technology. Campaigns must communicate “why I should participate,” “where I can get trained,” “how will this help my family,” and “how can these tools help me at work and in my life.”

*“People also have to understand that the Digital Economy is moving forward and that digital literacy and access is your ticket. In the words of a participant in a Philadelphia-based focus group: ‘You have to impress upon people that you are not going to go to a window any more [to receive public or private services]. There are going to be less windows for you to go to, so the quicker you are able to get online and access information, the better it will be for you and your family in the long run. There may be a point at which everything is going to be online; when you apply for college; when you get a driver’s license. Everything is going online.’”*

- Karen Archer Perry, Founder and Principal Consultant, Karacomm

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## Universal Adoption Mission

Access without adoption is, by definition, not inclusive. Consequently, the most successful initiatives we have seen engage in an aggressive outreach initiative that is designed to target all major underserved groups, including:

- Low-income families and individuals
- Children
- Seniors
- People with disabilities
- Non-English-speaking immigrants

For those who cannot afford technology at home, the cities should include leveraging public access and training across city libraries, park districts, and senior centers, and include these as a purposeful element of the Digital Inclusion plan. The ultimate objective of effective Digital Inclusion strategies is to make access to digital society a routine part of every citizen's life.

*"All people deserve... and really need... broadband access to the Internet at home. In Philadelphia, we feel that to limit the vision of a Digital Inclusion strategy to connecting public spaces—while useful in the short term—will, in the long run, widen the Digital Divide."*

- Greg Goldman, CEO, Wireless Philadelphia

## Call to Action: The Challenge

Bridging the Divide is a challenge we can win. It is also an imperative. The near-term competitive economic standing of our cities and our citizens rests at the heart of this issue. It's about the economic empowerment of the 21st century citizen—equipping them for full participation in everything the digital and global economy has to offer. Success will require innovation at all levels, including partnerships we have not seen before among government, private sector, philanthropic, and community leaders to ensure no citizen is left out of America's economic future.

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For information on support for Digital Inclusion programs offered by Microsoft, please access [www.microsoft.com/emerging/default.aspx](http://www.microsoft.com/emerging/default.aspx)

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## About Our Sources:

The sources that we quoted for this report represent some of the brightest minds and most innovative thinkers in how municipalities can address Digital Divide issues and implement Digital Inclusion, Digital Empowerment, or Digital Excellence initiatives. Interestingly, their backgrounds are as broad and varied as their insights into these issues are deep. We offer the readers of this report brief bios of who they are and what they are doing to advance the cause of universal access to technology as a way for every citizen to reap the full promise of participating in today's global and digital society.

### Hardik Bhatt

In February 2006, Mayor Richard M. Daley appointed Hardik Bhatt as Chief Information Officer of the City of Chicago. He also serves as Commissioner of the Department of Business and Information Services (BIS), the municipal agency responsible for meeting the technology needs of 37,000 employees in 46 City departments. At the age of 33, he was and still is one of the youngest members of the Daley cabinet. Under Hardik's tenure, BIS has become a major center within city government for innovation and private sector partnerships. He is leading the creation of the Community Wireless Broadband Network, a project that will leverage private partnerships to provide affordable high-speed Internet access to all Chicago residents, businesses, and community organizations. Hardik was named as one of the top 25 doers, dreamers, and drivers of innovation in government by *Government Technology* magazine and the Center for Digital Government for 2006. A native of India, Hardik has made Chicago his home since he first moved to the United States in 1998. Prior to joining the City, he served as a consultant with Oracle Corporation and Tata Consulting Services. He holds a master's degree in business administration from the Kellogg School of Management at Northwestern University and a bachelor of engineering in computer science from Maharaja Sayajirao University in Baroda, India.

### Greg Goldman

Greg Goldman, the first permanent CEO for Wireless Philadelphia, has a background in both the not-for-profit and for-profit sectors. He was most recently the Vice President of Korman Communities, a Philadelphia-based residential real estate company. Prior to that, Greg was Executive Director of MANNA, a local organization that delivers nourishment to people living with HIV/AIDS. During his six-year tenure there, the organization's service capacity and budget more than doubled, and its reach extended to include all 11 counties of the tri-state region. From 1992 to 1998, Greg was the Senior Program Officer at The Philadelphia Foundation, where he directed the financial resources to dozens of community-based organizations throughout the City and region. A Phi Beta Kappa graduate of Northwestern University, Greg holds a master's degree in public policy from the University of Chicago. He is also a recipient of the prestigious Eisenhower Fellowship, an international development program for emerging community leaders.

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### **Peter Korinis**

Peter Korinis has been the Chief Information Officer for the City of Miami, Florida, since 2002. Current initiatives at the City include major new system implementations: ERP, 911 Police and Fire dispatch and records, 311 Call Center, and GIS & Land Management systems. A former Chief Information Officer for Fairfax County, Virginia, and Senior Manager with PricewaterhouseCoopers LLP, Peter has founded two information technology firms (governIT and M2KA) to provide business software data and services to local governments. A retired Naval Security Group Officer, he has more than 30 years of operational and management experience in information technology, strategic planning, telecommunications, system development, information engineering, data administration, change management, team building, project management, and the comprehensive application of information technology solutions to business problems, particularly in government and K-12 education. Peter holds an M.S. in Information System Technology from The George Washington University and a B.S.E. (Mechanical Engineering) from the University of Michigan.

### **James Osteen**

James Osteen has been the Assistant Director of the Information Technology Department for the City of Miami (Florida) since 2000. Current initiatives at the City include business continuity, infrastructure consolidation, citywide wireless, and Digital Inclusion programs. Jim is a seasoned project manager with over 30 years of progressive information technology management experience involving all facets of software application development, strategic planning, business continuity, infrastructure resource planning and administration, change management, process automation, contract management, Internet/intranet development, infrastructure resource planning, infrastructure security, Digital Inclusion program planning and implementation, operations support, and systems integration. Jim holds a master's in business administration from Florida International University and a bachelor of science (Economics/Accounting/Finance) from Murray State University.

### **Karen Archer Perry**

As the founder and principal consultant in Karacomm, Karen Archer Perry is professionally and personally committed to putting technology into service for people and businesses. Karen brings to any program her ability to clarify issues, advocate solutions, mobilize cross-functional teams, and facilitate decision making. Karacomm specializes in putting the community in community wireless by working with communities to develop programs that ensure that their investment in municipal wireless delivers value to residents. Karen has worked with planners in Philadelphia, San Francisco, and Winston-Salem to shape community programs for wireless broadband services. In these cities and others, Karen has collaborated on Digital Inclusion strategies, created PC purchase programs, conducted focus groups, developed community engagement programs, evaluated pilot networks, researched and documented best practices, and created and implemented community marketing programs. Karen holds a master's in electrical engineering from Cornell University. She worked for the AT&T, Lucent Technologies, and Bell Labs family of companies for 20-plus years. She holds membership in both the Institute of Electrical and Electronics Engineers (IEEE) and the Society of Women Engineers.

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### **Catherine Settanni**

Catherine Settanni is founder and executive director of Digital Access ([www.digitalaccess.org](http://www.digitalaccess.org)) and The Community Technology Empowerment Project ([www.technologypower.org](http://www.technologypower.org)). Both are Minnesota projects helping to bridge the Digital Divide through support of community-based technology initiatives. Her board affiliations include the Greater Twin Cities United Way and the Minneapolis Foundation's MSNet Fund for Technology, and she serves as an advisor for the Center for Strategic Information Technology and Security within the Minnesota State Colleges and Universities System (MNSCU). Catherine currently chairs the City of Minneapolis' "Digital Inclusion Task Force," working on the Wireless Minneapolis initiative.

### **Julia Stasch**

Julia Stasch is Vice President of the Program on Human and Community Development of the John D. and Catherine T. MacArthur Foundation. She is responsible for all aspects of the Foundation's grantmaking related to strengthening communities; improving teaching and learning; increasing access to stable and affordable housing; improving juvenile justice; advancing policies that promote mental health; supporting approaches to enhancing the competitiveness of the nation's regions; and translating research and practical experience into effective social and economic policy. She is a member of the Economic Club and the Chicago Network. Julia is a summa cum laude graduate of Loyola University, and has a master's degree from the University of Illinois at Chicago. She chairs the City of Chicago Mayor's Advisory Council on Closing the Digital Divide.

## **About the Authors**

### **Maria E. Wynne**

Maria E. Wynne is the Senior Director of the Office of Economic Development and Innovation for the United States Public Sector for Microsoft Corporation. In her most recent assignment, she was General Manager for the U.S. State and Local organization at Microsoft. In her nearly 25-year career, Maria has generated success in sales, marketing, business development, and operations management for technology leaders Xerox, Microsoft, and Ameritech (now the new AT&T). As a senior executive leader, she has been responsible for leading sizable organizations in both public and private sector environments. Maria earned her bachelor of arts degree at North Central College, Naperville, Ill., and her master of business administration from Northern Illinois University. She has continued her executive development with Executive training at the Center for Creative Leadership and at Northwestern University's Kellogg School of Management. She serves on the Board of the Goodman Theatre in Chicago, where she resides.

### **Lane F. Cooper**

The Editorial Director of BizTechReports, Lane F. Cooper brings over 20 years of experience as a reporter and editor analyzing the business and technology industry. Technology magazines that have carried his bylines include: *Information Week*, *Telephony*, *Tele.com*, *Communications Week*, *Communications Week International*, *InternetWeek*, *Byte Magazine*, *Enterprise Systems Journal*, and *Multimedia Week*. Lane has been responsible for a number of editorial launches including: *Healthcare Marketing* and *PR News*, *Multimedia Week*, *Technology Transfer Week*, *Electronic Imaging Report* and *Broadband Networking News*. Lane also broadcast The Washington News Bureau Technology Minute for WTOP radio, the top-rated news and information station in the Washington, D.C., metropolitan area.