

**GOOGLE CONNECTS KANSAS CITY: HOW WILL THE PROJECT IMPACT THE “DIGITAL DIVIDE” OR IS THIS THE END OF THE LINE FOR MARGINALIZED POPULATIONS**

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The selection of Kansas City as the initial area to build a high-speed network has been widely celebrated in this area, with many civic and business leaders predicting the significant possibility of a greatly enhanced “Silicon Valley-like” region in the heart of the country. Yet, this project raises questions about how it will address the “digital divide” that limits residents’ affordable access and use of the high speed network.

**INTRODUCTION**

The technology revolution and the Internet have become central features of modern global society, and overall, many low-income neighborhoods still lag in comparison with metropolitan and suburban areas in the development and application of information communication technology (IT). One implication of being on the losing side of the digital divide is that there are fewer employment opportunities as many jobs are related to the new information-based economy. It also means that there is less opportunity to participate in the myriad of online activities including training, shopping, entertainment, research, and communications. In addition, and most importantly, being digitally connected has become critical to economic and educational advancement. As people use the Internet to conduct daily activities, those who lack access to those tools are at a growing disadvantage. Raising the level of digital inclusion by increasing the number of users should be a critical goal of this task group.

By not continuing to develop IT infrastructures and accessibility to the Internet, negative repercussions on the future stability of urban communities will occur. The Internet can be a powerful democratizing force, offering greater economic, political, and social participation to communities that have traditionally been underserved, and helping communities meet pressing needs. But unless concrete actions are taken to ensure that everyone has a chance to share in the benefits of the Digital Age, information technology could just as easily become another resource that is denied to the people who need it most. And in the end these neighborhoods could be left behind.

**DIGITAL IMPACT**

The Internet is becoming an invaluable tool for personal success and professional advancement. Increasingly, Americans are using it to find jobs, contact colleagues, locate public information, or take courses online. Familiarity with new technologies will also prepare more Americans for the high-tech workplace of the 21st century.

Despite all the talk of “e-revolutions” and “new rules for the global economy,” the emergence of the Internet is really no different than the emergence of many other technologies. The telegraph, the automobile, electricity, the telephone, and the airplane all affected society in fundamental and complex ways, with specific effects of those technologies determined by political moves. The invention of the cotton gin in the late 1700s was a boon to the American economy, but it institutionalized slavery in the Southern states. The development of nuclear technologies in the 1940s tantalized the world with the promise of independence from fossil fuels, but also raised the threat of inconceivable destruction from nuclear war. Often, policy decisions about an emerging technology profoundly influence how that technology plays a role in peoples’ lives.

So far, the Internet has proven to fuel a long stretch of economic prosperity in the United States. Stock prices have soared and worker productivity has risen to unprecedented heights. Many business and government leaders are heralding the possibilities of the digital age.

But hidden in the cracks of the recent American economic boom are urban and semi-rural neighborhoods where the Internet has failed to boost incomes and spread prosperity. The emergence of the so-called “digital divide”—whether it refers to race, socioeconomic factors, education, age, disability, or location threatens to widen existing economic gaps. The digital divide is particularly acute between rural and urban areas, while cable companies are delivering high-speed broadband access to large cities and suburban areas.

### **THE END OF THE LINE**

I recently saw the movie, “The Help”, and with many very strong scenes, there is one that is very poignant for me. The star of the movie, Aibileen, and an African American man, after working late into the evening, are riding the bus home. The bus abruptly stops at a roadblock. Someone has been shot and all the black people have to get off the bus. For them, it is the end of the line. Yet, the Caucasian riders are able to stay on the bus to their neighborhoods. For Aibileen, this was the sudden end of the line. She had to walk the rest of the way home, in the dark, uncertain about the brewing crisis for which the bus ride ended for her.

This Google project could be the end of line for many of our area citizens. They could be forced off the bus and left to wander in a disturbing under-class, not lower class culture.

The Internet will certainly change our economy; to some extent, it already has. The question that remains is whether Internet policy and structure can be put in place to strengthen our society by spreading new prosperity for all Americans or weaken our society by exacerbating old divisions. No matter how many dot coms spring up in the Kansas City region, we will fall short of our full potential unless we bring impoverished segments of our community into the Digital Age. The technology to do just that is at our fingertips, but current public policy is lagging behind.

Even in some of our most tech-savvy wired neighborhoods, many people – particularly low-income households, immigrant populations, and senior citizens – do not have high-speed Internet in their homes or businesses. In our work we must ensure that this technology serves the public interest and enhances the future of all of our citizens. Without careful, strategic, and authentic considerations and solutions, this may be “the end of the line” for many marginalized people; they may never be able to catch up to the “Jetson’s” culture.

### **BARRIERS TO ACCESS**

#### **By Race**

Jesse Washington, in the San Francisco Chronicle (2010), wrote that when the personal computer revolution began decades ago, Latinos and African American’s were much less likely to use one of the marvelous new machines. Then, when the Internet began to change life as we know it, they had less access to the Web and slower connections--placing them on the wrong side of the "digital divide."

Today, as mobile technology puts computers in our pockets, Latinos and blacks are more likely than the general population to access the Web by cellular phones, and they use their phones more often to do more things.

But now some see a new "digital divide" emerging — with Latinos and blacks being challenged by more, not less, access to technology. It's tough to fill out a job application on a cellphone, for example. Researchers have noticed signs of segregation online that perpetuate divisions in the physical world. And blacks and Latinos may be using their increased Web access more for entertainment than empowerment.

Fifty-one percent of Latinos and 46% of blacks use their phones to access the Internet, compared with 33% of whites, according to a July 2010 Pew poll. Forty-seven percent of Latinos and 41% of blacks use their phones for e-mail, compared with 30% of whites. The figures for using social media like Facebook via phone were 36% for Latinos, 33% for blacks and 19% for whites.

A greater percentage of whites than blacks and Latinos still have broadband access at home, but laptop ownership is now about even for all these groups, after black laptop ownership jumped from 34% in 2009 to 51% in 2010, according to Pew.

"I don't know if it's the right time to celebrate. There are challenges still there," says Craig Watkins, an associate professor at the University of Texas at Austin and author of "The Young and the Digital." He adds: "We are much more engaged, but now the questions turn to the quality of that engagement, what are people doing with that access."

Today, African Americans account for about 25% of all Twitter users, roughly double the percentage of blacks in the U.S. population, according to a February 2010 survey by Edison Research and Arbitron.

When I recently served as president of MCC Penn Valley, we implemented online registration and enrollment. We had to extend financial aid, admissions, and library hours because the students did not have access to computers at home. Many of them may have a desktop computer at home, but it probably was not connected to the Internet or they did not have the funds to keep up with technology updates. So they needed to come to the campus to take care of their enrollment process. However, they may use their phones for 80% of their online activity, which is usually watching hip-hop and comedy videos or looking for sneakers on eBay.

Facebook and Internet access are what most of Miguel Amador's customers want when they enter his two stores in Latino neighborhoods in Camden, N.J. Five years ago, the majority of his revenue came from music CDs. Now, his mobile device sales are up 50% from a year ago. His top seller is the MyTouch 4G phone, which costs \$499.

Amador immigrated from the Dominican Republic 20 years ago. He uses a laptop at home and a desktop in his store to run his business and update his two Facebook accounts. One account is for personal use — he estimates that 75% of the people he knows are on Facebook — and one is aimed at his customers.

He recognizes that mobile phones are more limited than computers: "Phones are more for entertainment right now. I don't want to use the word uneducated, but I don't think (customers) are 100% educated on what the Internet can do in your life. They just see you can have fun on it."

"For the Latino community," he says, "people without Internet are missing about 65% of the opportunities in life."

Yet mobile Internet access may not be the great equalizer. Aaron Smith, a Pew senior research specialist, says there are obvious limitations on what you can do on a mobile device — updating a resume being the classic example.

"Research has shown that people with an actual connection at home, the ability to go online on a computer at home, are more engaged in a lot of different things than people who rely on access from work, a friend's house, or a phone," Smith says.

For those Latinos with mobile access, their connections are often related to geography. "Most Latinos here want to communicate with each other, they have family in other places that they want to be connected to," Amador says. "And they want to be involved in the American community. They see everyone on TV talking about Facebook and Twitter and they want what other Americans have."

The early days of the Internet were filled with visions of a Utopian space where race would disappear, famously captured by a 1993 New Yorker cartoon with one pooch sitting at a computer saying to another, "On the Internet, nobody knows you're a dog."

But the reality has turned out much differently, says Peter Chow-White, an assistant communications professor at Simon Fraser University and co-author of the forthcoming anthology "Race After the Internet." He says there is "absolutely" still a racial divide online, in terms of broadband access and the ability of blacks and Latinos to make their voices widely heard.

"As long as you have structural inequalities in society, you cannot expect to have anything less than that on the Internet," he says. "The Internet is not a separate space from the world, it's intricately connected to everyday life and social institutions."

That's what Danah Boyd found as she documented a form of "white flight" among teenagers from MySpace to Facebook in 2006-07.

A social media researcher for Microsoft and a fellow at Harvard's Berkman Center for Internet and Society, Boyd interviewed teens in 17 states and spent more than 2,000 hours observing online practices.

She found that black youth were more likely to be on MySpace, while whites were leaving what some called MySpace's "ghetto" environment for Facebook. Although few white teens explicitly said they were leaving MySpace to get away from blacks or Latinos, Boyd said their comments were often closely tied to race and class.

"The higher castes of high school moved to Facebook," one 17-year-old told her. "It was more cultured and less cheesy. The lower class usually were content to stick to MySpace."

These movements "reflected a reproduction of social categories that exist in schools throughout the United States. Because race, ethnicity, and socio-economic status shape social categories, the choice between MySpace and Facebook became racialized," Boyd wrote in an article to be published in "Race After the Internet."

Today, Facebook has eclipsed MySpace in popularity, and Facebook says that blacks are about 11% of all U.S. Facebook users. But no ethnic group has increased its Facebook usage more than Hispanics, which went from about 3% to 9% of U.S. users since 2006, according to the site's own analysis.

Amador believes this trend, along with more Internet access in general, is speeding up the process of assimilation for Latinos by connecting them to their friends and families back home.

"When you're far away from something, you have a strong feeling for it, and you want it more," he says. "But now that we can get closer to those things, it makes us much more comfortable here."

Smith, the Pew researcher, says more research is needed to understand the implications of blacks and Latinos moving so quickly to mobile Web access, because this technology is changing the patterns of Internet use as profoundly as the shift from dial-up to broadband did over the past decade.

"Mobile is a totally different experience," he says. "It's a huge change when the gateway to information in the digital world is always with you."

For many urban residents, high-speed Internet services, which typically cost \$40 to \$60 per month, are simply too pricey. Compounding the Internet access problem, many people are unable to afford a computer, lack funds to keep up with all the updates, or lack the skills to navigate the Web. And just like their rural counterparts, some urban areas have been redlined by Internet service providers that refuse to offer service to communities that may not provide as large a financial return.

Many urban residents are locked out, unable to participate fully in the digital era. They're prevented from applying for jobs, telecommuting, taking online classes, or even finishing their homework. It's becoming increasingly clear that Internet connectivity is the key to a sound economy and could assist those hit hardest by the economic downturn.

Additionally, the Internet has revolutionized the way everyday people can mobilize, organize and work for social change. It allows people – at least those fortunate enough to have a high-speed connection – to create media with their own voices.

## **Disability**

Lack of accommodation for people with disabilities causes a gap in those people's abilities to access to technology. According to a Pew Research Study, "One in four American adults live with a disability that interferes with activities of daily living. Fifty-four percent of adults living with a disability use the Internet, compared with 81% of adults who report none of the disabilities listed in the survey. Two percent of American adults say they have a disability or illness that makes it harder or impossible for them to use the Internet."

## **Education**

Education is one area where the digital divide is prominent.

One area of significant focus in the United States was school computer access. In the 1990s, better resourced schools were much more likely to provide their students with regular computer access and at the end of the decade, these schools were much more likely to have internet access.

In the context of schools which have consistently been involved in discussion of the divide, current formulations focus more on how (and whether) students use computers, rather than simply whether there are computers or Internet connections. Public libraries and afterschool programs have also been shown to be important access and training locations for disadvantaged youth. However, as discussed in further detail later on, even libraries cannot fully fix the problem of inequality between the have and have-nots.

Access to technology is often divided within schools according to socio-economic status (SES). Laura Robinson identified both “temporal and emotional costs” for the lower SES children who have no or low-quality access at home. Temporal costs refer to the additional time that low SES students must spend to access technology (such as the need to access shared computers at public facilities, reached by public transportation). Further, Robinson found that the additional costs that low SES students incur result in them having less skill in using the Internet to conduct classroom research. In particular, she noted that low SES students are not as adept at performing efficient, deep internet searches for research projects, and have difficulty distinguishing credible information from non-credible information.

Some companies have sought to bridge the digital divide in the classroom through programs such as One Laptop per Child. This organization's mission is to raise money and awareness (and, in so doing, reduce overall poverty) by providing low cost laptops to underprivileged children.

### **PROPOSED MISSION**

Our central mission should be to create a high-performance Kansas City region—a more productive, creative, efficient region in which affordable broadband is available everywhere and everyone has the means and skills to use valuable broadband applications.

A high-performance region cannot stand by as other regions charge into the digital era. We cannot watch passively while other regions build models of high-performance. We could be a leader of using this broadband technology—by delivering high-value goods and services that drive enduring economic growth and job creation. And we should be the leading user of broadband-enabled technologies that help businesses increase their productivity, help government improve its openness and efficiency, and give consumers new ways to communicate, work, and entertain themselves.

To ensure we lead the country, this plan should address the troubling gaps and unrealized opportunities in broadband by recommending critical solutions. The proposed recommendations fall into seven general categories:

- Ensure efficient allocation and management of assets government controls or influences, such as spectrum, poles, and rights-of-way, to encourage network upgrades and competitive entry.
- Recommend reforming current universal service mechanisms to support deployment of broadband and voice in high-cost areas; and ensure that low-income Americans can afford broadband; and in addition, support efforts to boost adoption and utilization.
- Recommend reforming policies, standards, and incentives to maximize the benefits of broadband in sectors government influences significantly, such as public education, health care, and government operations.
- Every American should have affordable access to robust broadband service, the means, and skills to subscribe if they so choose.
- Google's network, beyond the speed, will not transform Internet access unless we consider free 24-hour access in every home, as another utility. Or, if this sounds outrageous, consider the goals of two Missouri-based efforts to extend broadband to underserved areas and build public computer centers throughout the state.

- Make broadband more accessible to people with disabilities.
- Ensure that small businesses--many of which are owned by women and ethnic groups--have the opportunity to purchase broadband services at reasonable costs.

Not having access to broadband applications limits an individual's ability to participate in 21st century American life. Health care, education, and other important aspects of American life are moving online. What's more, government services and democratic participation are shifting to digital platforms.

Three requirements must be satisfied to ensure every American can take advantage of broadband. First, every American home must have access to network services. Second, every household should be able to afford that service. Third, every American should have the opportunity to develop digital skills.

To promote affordability, this plan also proposes extending the Lifeline and Link-Up programs to support broadband. To promote digital skills, we need to ensure every American has access to relevant, age-appropriate digital literacy education, for free, in whatever language they speak, and we need to create a Digital Literacy Corps.

Achieving this goal will likely lead to an adoption rate higher than 90% by 2020 and reduced differences in broadband adoption among demographic groups.

Some cities have started programs to bridge the divide for their residents, school children, students, parents, and the elderly. One such program, founded in 1996, was sponsored by the city of Boston and called the Boston Digital Bridge Foundation. It especially concentrates on school children and their parents, helping to make both equally and similarly knowledgeable about computers, using application programs, and navigating the Internet. In 2010, the City of Boston received a major grant from the government to provide internet access and training to underserved populations including parents, children, youth, and the elderly.

Another possible solution that civilians are using in an attempt to overcome the digital divide is making more "hotspot" zones where people can access free Wi-Fi. Various places including San Francisco (headed by Mayor Gavin Newsom) and North Carolina are implementing this solution in an attempt to bridge the gap. This solution sounds appealing as "55% of American adults connect to the Internet wirelessly, either through a Wi-Fi or WiMax connection via their laptops or through their handheld device like a smart phone." However, some argue that this solution is ignoring an entire population of people. The underprivileged population that this hotspot policy is trying to help are most likely the ones who have a lower socio-economic background. Although this may help some people who are of a lower socio economic background, this solution implies that everyone owns a laptop. Many disadvantaged students who have no Internet access do not own computers, so the Wi-Fi is pointless. The Wi-Fi is most likely only helping a small percentage of civilians that can afford a laptop but cannot afford high quality Internet access. Both those who argue for implanting more hotspots and those who say hotspots are pointless have valid points.

Solutions can start to be reached when civilians are aware of the digital divide as it is widening the gap between the upper and lower classes. It is widening the gap between the classes because the wealthy will continuously use their skills and technology to further their businesses while the underprivileged will continue to fall behind. The digital divide is widening the gap because people are applying,

utilizing, and implementing technology more and more into their daily lives as “electronic mail is quickly becoming as essential to full participation in society as having a telephone.”

Technology may not be a detrimental invention, however. Technology is not the cause of the digital divide, rather the cause of the digital divide is humans who are ignoring an entire population of people. If the wealthy use technology to both further their own research and businesses and help the underprivileged, then perhaps the gap between these two classes will lessen.

Many new users need to overcome the psychological effects of the digital divide. The digital divide brings about much insecurity among people who are not familiar with today’s technological advancements. It creates a divide in the psychology of people who have a lack of confidence with new technology and digital devices, and those who do not. Their perception is that digital devices are too complicated and they are uncertain or nervous about learning how to use them and get started. There is a great amount of division between the old and young, usually because of their access to the digital devices and Internet. People who are uncertain, uncomfortable, and have a skewed perception towards computers, the Internet, and other recent technologies ultimately bring about a weak self-efficacy.

Self-efficacy is a term meaning “one’s personal ability to perform a task and feel confident about it.” The people in society who are less comfortable using technologies, such as the Internet become stressed about their lack of skills, lowering their self-efficacy. Computers and other devices require a significant amount of patience and confidence. Many new users have the patience but it is overruled by their lack of confidence, a trait that people on the other side of the digital divide do in fact have.

## **CONCLUSION**

The Google high speed network is a significant opportunity for this region in an era when Internet speed is key to productivity in business, medicine, and education. The mix of Internet providers in this community -- cable, phone, satellite, and now wireless -- means consumers or organizations are not without service options. Cost and access are important factors in determining the success of this experiment after the bright lights have dimmed.

The rapid growth of smart phones and data plans means that the cost for phone service may make connecting to Google's network unattractive, especially if it comes with a relatively-low \$30-\$50 per month charge. Who will want to pay this additional fee when they are already on a \$80 monthly cell phone data plan?

The question remains, can we develop a plan that greatly infuses business and entrepreneurial opportunities, and yet provide affordable or free options to close the digital divide in our region? To be a vibrant region after the bright lights have dimmed, we need everyone on the bus. This is no time to announce to some of our citizens, “I’m sorry. This is the end of the line!”