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Bridging the Digital Divide:

Framing Whiteness

(TITLE)

BY

Martha L. Wilkinson

THESIS

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RUNNING HEAD: BRIDGING THE DIGITAL DIVIDE

Bridging the Digital Divide: Framing Whiteness

Martha L. Wilkinson

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Abstract

The American Recovery and Reinvestment Act of 2009 signed by President Obama established the Broadband Technology Opportunities Program (BTOP) for the purpose of building and strengthening broadband infrastructures. (National Telecommunications and Information Administration, 2010). In the twin cities of Champaign and Urbana, Illinois efforts were made by a local Broadband Access Committee (BAC) to obtain funding for various projects. One project involved installing fiber-optic rings to connect buildings including schools, hospitals, and police/fire departments, along with other vital agencies. Additionally, this money would also be utilized to bring fiber to the home (FTTH) to neighborhoods indentified as underserved. Additional grants to establish Computer Technology Centers (CTC's), and programs to encourage sustainable adoption were also applied for by the BAC.

This study examined the efforts of the BAC, and how their efforts were perceived utilizing a rhetorical framework of whiteness. The purpose of this study is to understand how privilege can shape and influence the ways in which underserved areas were approached and understood.

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My grandfather John Theodore "Ted" Lindstrom (1901-1992): I often imagine you looking down at me from the heavens, and giving me the strength and courage to carry on. It is in your memory that I dedicate this thesis.

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Chapter One: Introducing the Digital Divide

Introduction

"It is a grave situation when people resign their citizenship, or when a resident of a great city, though he may desire to take a hand, lacks the means to participate. That citizen sinks further into apathy, anonymity, and depersonalization." (Alinsky, 1971)

Having the ability and the means to communicate is a vital component for being a full participant in society. Over time, the tools that are used to communicate have grown more sophisticated, and with the growth of the Internet, the lines between space and time have become more blurred. As a result, differences have emerged amongst people who enjoy full access to the technology versus individuals with limited or no access. This is commonly referred to as the "digital divide", and the current study takes a look at efforts in Champaign and Urbana, Illinois to bring broadband access to underserved areas, as well as rebuilding the infrastructure in both communities.

This study will first examine the digital divide and how the understanding of what constitutes a divide has evolved over time. Just over a period of ten years, what has been considered by the National Telecommunications and Information Administration (NTIA) to be a digital divide has changed. In 1999 the NTIA reported population differences between people who had computers and Internet access at home versus households without computers and Internet (National Telecommunications and Information Administration, 1999). In 2010 the digital divide has been refined to identify households with high speed "broadband" Internet (i.e. cable, DSL, Satellite) versus homes with slower dial up access or none at all (National Telecommunications and Information Administration, 2010).

This study continues by taking a look at how historical and social constructions of whiteness have had an impact on determining who benefits the most from technological developments and advances. Chapter two establishes a rhetorical framework of whiteness using Jackson's (1999) study of white students attending a predominately black university. The ways in which Jackson mapped whiteness will be used to analyze both the efforts to bridge the digital divide in Champaign-Urbana, as well as the responses to those efforts. Chapter three looks at the history of the efforts to bring broadband to the Champaign-Urbana community and follows how a group of individuals worked to obtain grant funding from the NTIA when stimulus funds became available. Chapter four offers an analysis of how whiteness has managed to shape and influence the situation in Champaign-Urbana, while chapter five addresses the results of the study and presents suggestions for future study.

One thing that writers who address issues pertaining to whiteness do is identify who they are with regard to their own ethnic and gender classifications. This is because an interpretive study does reflect the cultural markings of the person conducting the research, and the socio-cultural identity of the researcher is important to consider when reading the results of the analysis. In the case of Nakayama and Krizek (1995), both writers identify themselves as Japanese – American and white respectively. Later Jackson (1999) identified himself as an African American scholar, and his framework for whiteness will be used in shaping the current study. This current study fulfills the thesis requirements of a white, non-traditional (early 40's), female student who is an activist in the Champaign Urbana area.

Navigating the Digital Divide

One thing that is generally agreed upon is that the Internet has had a transforming effect on how we communicate and exchange information. It has been argued that information and communication technology (ICT), in the form of personal computers and Internet access, has resulted in changes comparable to earlier industrial revolutions (Alkalimat, 2004; Hawkins, 2005). Alkalimat argues that we are evolving from an industrial society to becoming an information society. As such, it has become increasingly important to understand the socioeconomic implications of this technology. One such phenomena surrounds what is referred to as a digital divide, and it has become a term which describes the advantages that privileged populations with full access to ICT versus groups with limited access to ICT (Alkalimat, 2004; Hawkins, 2005; National Telecommunications and Information Administration, 2000, 2010). This segment of the study explores how an understanding of the digital divide has developed over time.

Our understanding what creates a digital divide is something which continues to evolve to this day. Kuttan and Peters (2003) notes that the earliest attempts to measure the digital divide simply collected data on who owned personal computers and had access to the internet at home. In 1999 the National Telecommunications and Information Administration (NTIA) released the report *Falling through the net: Defining the digital divide.* This study identified the digital divide as something that could be clearly marked amongst populations who had both personal computers and internet access (National Telecommunications and Information Administration, 1999). Below are some of the statistics that the 1999 study reported:

- Households headed by someone with a college degree were eight times more likely to have a computer at home compared to households headed by someone with an elementary school education. Additionally, having a college education meant that someone was close to 16 times more likely to having Internet access at home.
- Households with high incomes in urban areas were over 20 times as likely to have Internet access, compared to low income households located in rural areas.
- Low income children from White households were three times more likely to have Internet access compared to Black households, and four times more likely than Hispanic homes.
- Households headed by high income Asians were 13 times more likely to own a computer than a low income Black home, and close to 34 times as likely to have Internet access.
- White children in two parent households were close to two times as likely to have Internet access as children in a white single parent household. Black children in two parent households were four times as likely to have Internet access compared to children in a Black single parent household (National Telecommunications and Information Administration, 1999).

The NTIA (1999) expressed alarm that failing to bridge the digital divide would result in the United States falling behind amongst industrialized nations. This report also noted that the workforce would need to have people who are literate in both computer and Internet usage. The 1999 report carried with it a sense of urgency which prevails to

this day. In a lecture series held at the University of Illinois at Urbana-Champaign (UIUC) in Fall 2009 Dr. Abdul Alkalimat had this to say about the digital divide:

> *"The digital divide is, as we all know, is a fundamental issue as a society begins its initial stage of moving from the industrial to the informational and there are far reaching implications of this. Old inequalities are being repurposed and restructured so we now have new inequalities. Society has a history of moving from one set of inequalities to another and each stage is a challenge. Not only is it a challenge for scholarship to understand what these structural changes are, but also the question of policy, of how do we overcome these problems."* (Appendix A)

The ongoing relevance of the digital divide as an issue of equality is something which has, over the last ten years, deepened to include areas that go beyond just having access to a computer with an Internet connection. This is because research has revealed that differences in how online access is used can also create and enhance social inequalities (Appendix A; Hawkins, 2005; Hargittai, 2010; Hargittai & Walejko, 2008). The UIUC lecture series hosted by the Graduate School of Library and Information Science (GLIS) featured Dr. Kate Williams who noted that research has revealed different ways in which digital divides can still manifest themselves (Appendix A). She cites the work of DiMaggio and Hargitaii in indentifying five dimensions within the digital divide:

- Technical means of access: According to Hargittai (2003) this refers to both the quality of the equipment as well as the speed of the connection. An old computer

or slow connection can hinder the amount of time it takes to retrieve and utilize information.

- Autonomy of access: There are things a person can do at home on a personal computer that may not be allowed on a work computer.
- Questions of skill: Is the person trained to use or create computer programs?
- Questions of support: Do people have access to individuals or courses that can train them in computer usage?
- Questions of purpose of use: There is a difference between someone who uses the computer to play games (i.e. solitaire) versus someone who uses computers to do things that require more sophisticated skill sets (Appendix A).

An April 2009 report by the Pew Internet and American Life Project revealed that wireless access to the Internet in the form of laptops, gaming consoles, and mobile devices is something that has been adopted by fifty-six percent of Americans (Horrigan, 2009). In this report the largest growth of Internet usage through mobile telephones was found amongst African Americans who found the technology to be both affordable and adaptable to their lifestyles. Mack (2001) noted that cell phone usage amongst African Americans held a much larger appeal than computer ownership and this could, in part, be a contributing factor to widespread Internet access via telephone.

While the Pew report suggests that mobile and wireless usage of the Internet may be closing the digital divide, it can also be argued that minorities still are not getting the full benefits of ICT with cell phone usage alone. This is because utilizing and engaging in ICT is something that encompasses more than simply sending and receiving email and surfing the Internet (Kuttan & Peters, 2003). Additionally, Hargittai (2008) found that

socioeconomic status played a role in the functions that cell phone users had with their handheld devices. For instance, the ability to send and receive email, access the Internet, and use text messages were more common amongst cell phone users with higher incomes (Hargittai, 2008). As GLIS speaker Sascha Meinrath put it, if you can't afford between fifty to one hundred dollars per month for cell phone service, then you will be left behind (Appendix D). As such, the current focus in digital divide studies still tends to revolve around computer/laptop usage in conjunction with Internet access.

Hargittai (2008) suggests that using the term *digital inequality* would better reflect the nuances which cover the varieties of differences which have emerged with ICT use. Looking at ICT use from the vantage point of digital inequalities will account for the dimensions that Williams covered in her digital divide lecture, as well as be able to better differentiate the ways in which the Internet is used. Hargittai notes that socioeconomic status influences how people incorporate ICT and that can lead to inequalities, even amongst individuals with Internet access. There are four basic ways that web surfing skills have an impact on the level of proficiency by which one engages in the use of ICT:

- Being able to recognize the kinds of content that will be most relevant to a task, and that can be found online.
- Having the ability to acquire information
- Having the skill sets to obtain information in an orderly fashion
- The ability to critically evaluate online resources to weed out misleading or false information (Hargittai, 2008)

Hawkins (2005) also argues that physical access to the Internet is not sufficient to address inequalities. Some of the barriers to getting the full benefits of ICT can be as

basic as not understanding English which is the dominant language used in the Internet (Hawkins, 2005). Even amongst college freshmen who had access to ICT, one study revealed that socioeconomic status played a role in how students engaged in Internet usage (Hargittai, 2010). Hargittai's study showed that college freshman who had parents with a college degree were more likely to engage in widespread information seeking activities on the Internet than individuals who had parents with a high school diploma. Differences were also seen in terms of ethnicity where Asian American students exhibited more internet savvy, followed by Caucasian students, African American, and Hispanic students. Hargittai found that students with laptops were able to avail themselves to an increasing number of access points (i.e. places with free wireless) which translated into wider varieties of information seeking activities online.

Information seeking is not the only skill-set that can be utilized online. The Internet has made it possible for people to be producers of information. As a result, a divide has emerged between people who produce and publish material online versus individuals who remain consumers (Hargittai & Walejko, 2008). Williams also discussed how the Internet gives people the ability to essentially take ownership of their own cyber-representation (Appendix A). Hargittai and Walejko looked at a sample of college freshmen attending the University of Illinois Chicago at (UIC) campus and studied how students from different backgrounds engaged in content sharing on the Internet. This study revealed differences along gender, ethnic and socioeconomic lines.

For instance, female students were more likely than male students to write poetry and fiction (Hargittai & Walejko, 2008). The study also showed male students being the most likely to engage in music and video production. African American and Native

American students were more likely to engage in writing than other activities online. Students who had at least one parent with a masters plus degree were more likely to create more than one type of content (i.e.: music combined with video). By that same token, students whose parents didn't go beyond high school were the least likely to engage in endeavors such as photography and video production. Of the individuals in the study who created content only 56 percent of participants actually posted their work online. As such, it is important to consider that divides still exist in terms of both information seeking and content production online.

While there are divides and inequalities which exist in how the Internet is being engaged by people, it is also important to keep in mind differences which still exist in terms of both computer ownership and Internet access. In this instance, the NTIA has turned its focus on high speed Internet access. Currently many people in the United States do not have Internet access or are still dependent on slow dial up connections (National Telecommunications and Information Administration, 2010). According to the NTIA the home usage of broadband Internet access is divided by:

- Income: Households making 150,000 dollars ranked at 88.7 percent versus households who made 15,000 dollars ranking at 18.6 percent.
- Age: Populations of 18-24 year olds reported the highest level of usage (80.8%) with individuals 55 and older reporting the lowest usage (46.1 %).
- Race/Ethnicity: Asian (67.3%) households had the highest level of broadband access followed closely by White (65.7%) households. These two groups were followed by Black (45.9%) households, Native American (42.6%) households, and Hispanic households came in last (39.7%).

- Level of Education: In households occupied by people 25 years and older 84 percent of individuals with college degrees had broadband access. By comparison, 28 percent of people who didn't finish high school had broadband.
- Employment Status: People who are employed had the most access (70.5%), followed by the unemployed (58.4%), and people who are not part of the work force (47.4%).
- Household Type: Married couples with children under the age of 18 (79.8%), followed by households without children (67.7%). Male head of households (60%) ranked higher than female head of households (56.9%). People who were not related to other household members had the lowest ranking in terms of broadband access (50.8%).
- Gender: Males had broadband adoption rates of 59.3 percent followed closely by females with 59 percent adoption rates.
- Location: Rural areas (54.1%) had lower adoption rates than urban areas (65.9%). Blacks who live in urban areas (47.8%) had higher adoption rates than their counterparts in rural areas (28.8%). This was also observed amongst urban Hispanics (40.1%) and rural Hispanics (33.8%). This urban-rural gap was also observed amongst individuals who are employed and unemployed. Urban employed broadband use measured at 72.8 percent and rural employed broadband use measured at 61.7 percent. Unemployed individuals in urban areas had 60.2 percent broadband adoption compared to 49.6 percent of unemployed people in rural areas (National Telecommunications and Information Administration, 2010).

Additionally, the report also identified households who do not use the Internet at all. It is estimated that over 30 percent of people in the United States still do not have Internet access (National Telecommunications and Information Administration, 2010). Some of the reasons stated in the NTIA study indicated that most respondents found access to be cost prohibitive, lack of computer equipment, being able to use computers elsewhere, lack of availability, and lack of skills. In this instance, bridging the digital divide would begin by making access affordable, providing the equipment to use the Internet, and then putting support systems in place so that people can get the full benefits from access to ICT. This next section takes a look at ways in which people have attempted to bridge the digital divide in order to level the technological playing field for everyone.

Bridging the Digital Divide

Since the research has established the existence of ICT divisions the next steps often revolve around how to close these gaps and eliminate the inequalities which do exist. One way in which groups have attempted to bridge these gaps is through establishing community technology centers (Mack, 2001; Servon, 2002; Hayden & Ball-Rokeach, 2007; Shankar, 2008). The community technology center (CTC) is something that has grown from basic grass roots efforts of people who had some understanding of technology and its benefits (Servon, 2002). During the digital divide lecture series Dr. Kate Williams shared the story of an 80 year old minister who started a CTC from a church basement and sold raffle tickets to get it going (Appendix A). According to Williams, this center operated in spite of fluctuations in equipment and funding.

Another unique characteristic of a CTC is that they are often located in areas that are high poverty and underserved in terms of Internet access (Appendix A). Williams suggests that this may be due to the higher level of computer ownership and Internet access in more financially stable neighborhoods. CTC's do more than just provide access to the Internet, but provide support and training as well (Servon, 2002). The role of a CTC is also one that can be looked at in terms of the overall community infrastructure (Hayden & Ball-Rokeach, 2007). Hayden and Ball-Rokeach look at CTC's as having the potential to essentially function as communication hubs for a neighborhood. The authors cited a case study where participants had access in locations other than the CTC, yet still attended the centers on a regular basis and stayed for an average of two hours. This would indicate that the role of a CTC goes above and beyond just providing Internet access to underserved populations.

Williams addressed some of the ways that a CTC can bridge the divide not only in terms of internet usage, but also in terms of developing a community voice (Appendix A). Williams presented an example using a case study where members of a community availed themselves to the resources of a CTC. Tenant groups used technology for email and document sharing, local historians were able to create and upload materials, and cyber-organizers worked with teenagers and senior citizens to put content on the web (Appendix A). In doing so, this community was able to assume some level of ownership over how they were represented on the Internet.

In addition, CTC's public libraries have taken on the role of providing Internet and computer access to people. According to the American Library Association (ALA), an increasing number of people are turning to libraries to provide training and workshops

which enable people to do basic things like writing resumes to applying for jobs online (American Library Association, 2010). One library in Portland, Oregon found itself overwhelmed by job seekers who needed to use their computers to update unemployment records and apply for work (Hannah-Jones, 2009). Hannah – Jones describes how some patrons would wait for two hours in order to gain access for one hour, then if the individual had to spend time filling out unemployment paperwork online, the time to actually look for work would be lost. This is one way in which either a lack of access or limited access has had a tangible impact in the lives of individuals.

The report issued by the ALA found that the current economic climate has resulted in an increase of demand for the technology and computing resources that are available to patrons. The public library also provides the only source of free Internet access for well over 71 percent of communities (American Library Association, 2010). However, as Williams discovered during her own work in Toledo, Ohio, library branches located in poorer neighborhoods had to fight to get resources that main branches were able to take for granted (Appendix, A). So even with the role that libraries can assume in bridging the digital divide money, location, and funding can still play a part in who does and who does not have access to the Internet.

One of the challenges that the NTIA is attempting to address is finding ways to offer affordable and sustainable broadband adoption across the United States. The American Recovery and Reinvestment Act of 2009 signed by President Obama established the Broadband Technology Opportunities Program (BTOP) to award grants to eligible parties (National Telecommunications and Information Administration, 2010). According to the NTIA, this program will distribute 4.7 billion dollars to bring broadband

access to underserved and rural populations. Additionally, the grants will provide improved broadband services to public agencies, and upgrade technology and accessibility for CTC's, community colleges, and public libraries.

The twin cities of Champaign and Urbana, Illinois worked with the University of Illinois at Urbana-Champaign (UIUC) to obtain grant funding from BTOP. Members of the local cable commission, the community, and UIUC came together to form the Broadband Access Committee (B AC). The goal of the BAC is to bring better broadband to the Champaign-Urbana area.

What the current study aims to do is look at the discursive practices which have shaped efforts to bridge the digital divide in the Champaign-Urbana area. This can deepen our understanding of how efforts to bring resources to underserved areas can be either helped or hindered by the social constructions of privilege. This study also looks at how *The News-Gazette* and *IlliniPundit*, a local blog, responded to the efforts to fund the broadband project. It is with this in mind that the next part of the study looks at whiteness theory, as a social construction of privilege, and how it can deepen our understanding of the current situation in Champaign-Urbana.

. Chapter Two: Framing Whiteness

Whiteness as Privilege

In looking at the efforts of the BAC to develop broadband infrastructures within the Champaign-Urbana communities, the framework for the current study focuses on whiteness. Whiteness is a social construction of privilege, and it's important to understand how privilege can have an impact on efforts to make changes within a community. In this instance, the focus here is on what the BAC and NTIA consider to be "underserved" areas of the community. In Champaign-Urbana a door to door survey identified 11 census blocks which is primarily located in what is referred to as the "North End" (Appendix C).

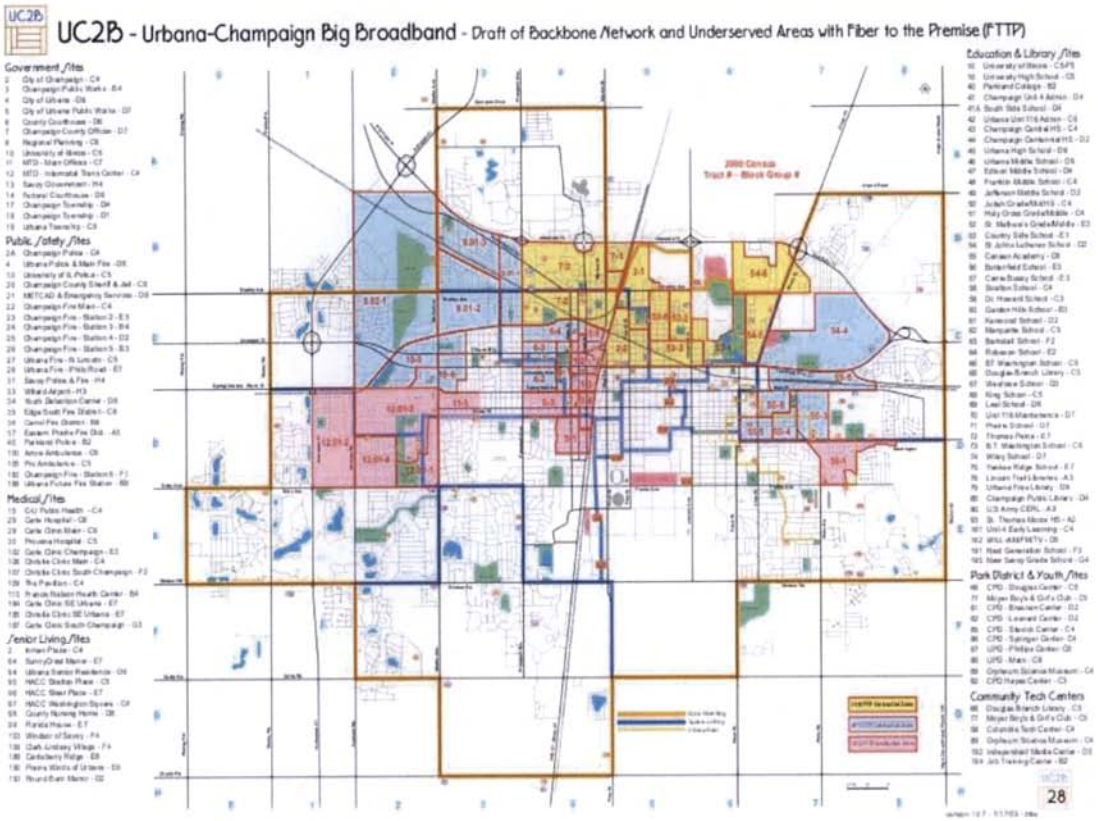

Figure 1: Map of Champaign-Urbana including "Yellow" zones (Map Courtesy of GLIS)

This part of Champaign-Urbana is north of University Avenue, east of Prospect Avenue, west of Lincoln Avenue, and south of Interstate 74. Most of the census blocks identified in the yellow zones are within these parameters, with two yellow census blocks located east of Lincoln Avenue in Urbana. According to eBlack Champaign (2010), historically the north end of Champaign became predominately, and almost exclusively, African American as a result of discriminatory housing practices. Even Black students, who attended the University of Illinois, used to be segregated in terms of living quarters (eBlack Champaign, 2010). Specifically, the area north of University Avenue and east of First Street ended up housing African American students who attended UIUC. This is an important thing to consider in evaluating the current situation. This leads into understanding how whiteness as a social construction of privilege plays a role.

The social and financial benefits of white privilege can be seen in housing profits, unequal educational opportunities, and in networking for well paying jobs (Lipsitz, 1998). In particular, when we look at the digital divide, employers who hire ICT professionals often utilized networking practices which generally favor white males (Martin, 2007). These examples of disenfranchisement are part of a complex history of whiteness which has managed to embed itself within the cultural fabric of the United States. In considering whiteness as a social construction of privilege, it's important to consider some of the historical aspects involved.

When we look at fields like anthropology there is a historical tendency to refer to non-white cultures as being inferior in nature (Wander, Nakayama, & Krizek, 1999). This may be due to the fact that other cultures may not have or aspire to a standard of living that is associated with technological advancements. Scholars will admire the pyramids of

Egypt and the architecture of Rome while labeling groups that live in tribal communities as "primitive" in nature (Wander, Nakayama, & Krizek, 1999). In early colonial American society, both science and technology reflected a predominately white male perspective (Johnson & Watson, 2005). Johnson and Watson argue that the current dearth of African Americans amongst the ranks of scientists, mathematicians, and engineers reflect historical attitudes and practices of racism and technology.

Historical constructions of these privileged practices can be seen in the habit that European settlers engaged in when they colonized what later became the United States through the ideological justifications that resulted in enslaving individuals based on skin color. These early settlers first enslaved Native Americans and later Africans because they were seen as primitive, inferior, and in need of civilizing (Lipsitz, 1998; Wander, Nakayama, & Krizek, 1999; Mack, 2001). This power dynamic was reinforced by practices and policies which pitted non-white minorities against one another (Lipsitz, 1998). Native Americans could be rewarded for returning or murdering a runaway slave. Additionally, both free blacks and slaves were forbidden to travel into Indian territories. It was not unusual for African Americans to be recruited to fight in wars and conflicts against Native Americans. This tendency for white privilege to function as a mechanism to pit disenfranchised groups against one another is something that has also been seen in recent history. A case in point would be California's Proposition 209 which ended affirmative action in 1996, and garnered a lot of support and votes from white women (Mukherjee, 2000).

Technology has had the ability to shape and determine the socioeconomic status of people in the United States from the period of slavery to the present time (Mack, 2001;

Akalimat, 2004; Pursell, 2005; Fouche, 2006). From the invention of the cotton gin to the assembly lines in the auto industry, the ability of technology to provide ways to entrap and emancipate individuals is remarkable. The history of technology has overlooked the inventions of African Americans who, while enslaved, could not apply for patents or be given credit for their inventions (Johnson & Watson, 2005). According to Johnson and Watson, any invention crafted by a slave automatically became the property of the master and much of the contributions that African Americans have made to technological developments and advancements have been lost as a result.

Additionally, Alkalimat (2004) notes how the invention of the cotton gin increased the demand for slave labor which flourished in the southern United States. Alkalimat cites the work of historian Herbert Aptheker, in suggesting that Eli Whitney's invention was based on sketches developed by a slave. After the civil war, the sharecropping system was put in place until the invention of the mechanical cotton picker which eliminated the need for manual labor (Alkalimat, 2004; Horton, 2004). This transition from slavery to sharecropping was due to the failure of reconstruction programs to provide newly freed slaves with the land, the resources, and the education needed for these individuals to become full participants in a society that had long treated them like chattel (Mack, 2001). Mack notes the Southern Homestead Act of 1866, which was intended to open up 46 million acres of land for free slaves, ended up developing barriers to blacks who applied for the land. Instead, many of the rules ended up being changed to include white families who simply stated that they did not fight on the confederate side of the civil war.

Years later the assembly lines developed by Henry Ford enabled black families to become part of the middle class through offering wages that were considerably higher than the meager living to be found in sharecropping (Alkalimat, 2004). Alkalimat noted that one of the cultural impacts of this northern migration came from the formation of Motown Records in Detroit, Michigan, where African Americans worked in the auto industry, and the rich musical legacies which formed as a result.

The rise of the automotive industry managed to lift other social barriers as well. For example, Pursell (2005) reprinted a 1924 article from *Negro World* where the automobile is praised as a tool for black individuals to have "personal liberty" during the days when Jim Crow laws were standard. Instead of having to sit in racially segregated trains and buses, an African American with an automobile could travel from city to state with a degree of freedom. Later when the Toyota system of manufacturing came into the United States, many individuals in the automotive industries lost their jobs (Alkalimat, 2004). This had the effect of reversing the economic trend of African Americans being able to obtain a 'middle class' standard of living. Alkalimat argues that we have gone from being an industrial society to becoming more of an 'information society' and this is now a driving force behind the socioeconomic status and participation of individuals.

A starting point in looking at whiteness is to understand it within the context of identity. Hall (1996) argues that identity is a power construction in the sense that it lets people know who the dominant group is and conversely how people can be excluded. Additionally Hall states that individuals seek identification within groups of people who have the same cultural characteristics and standards which are instrumental in the formation of alliances. One way in which this can manifest itself online is through virtual

communities and groups where people can find individuals who share common interests and hold similar attitudes.

Garner (2007) describes racism as a "system of power relationships" and whites benefit from "racial contracts" even if they do not acknowledge subscribing to it. One example that Garner presents is that of employees who work in positions where their contracts and wages are negotiated by a union. In this instance, an employee who is not a card carrying member of the union nonetheless enjoys the merits that come with having representation in contract negotiation and benefits. Marty (1999) notes that white children inherit this predicament of being born to a privileged and racist culture and often there is no guidance or directions given to them at a young age. This can result in children becoming white adults who, even when striving to become part of an anti-racist dialogue, can also fail to recognize and address core problems inherent in racism and privilege.

Sullivan (2006) suggests we look at white privilege as a form of habit. Habits can be something that takes place on a subconscious and discursive level. Unlike other habits, such as smoking, the habit of white privilege is one that has a tangible impact on how individuals interact with the world around them. It is also noted by Sullivan that the invisible nature of whiteness also prevails in that it is not considered to be appropriate for a white person now to use terms that are understood to be racist in nature. However, other aspects of racism remain present in a society that refers to predominately black neighborhoods as ghettos, the image of the welfare queen, and a prison system which increasingly incarcerates men of color. Yet, if being white is something that remains invisible, the challenge is to find ways to deconstruct and address what it means to be a white person.

One avenue of study which attempts to do this is in the area of whiteness studies. Whiteness as a power construction serves to create the social and economic norms (which favor white people) by which other individuals (non-whites) are marked (Nakayama & Krizek, 1995). Nakayama and Krizek believe that the social construction of whiteness maintains its power base by denying the very existence of white privilege. In other words, it is not unheard of for a white person to refuse to acknowledge any benefits that are derived from the mere fact of being Caucasian. Where this becomes problematic is that whiteness still has many social and economic benefits.

A survey conducted by Nakayama and Krizek (1995) on whiteness found that white participants described themselves as being part of the majority and "American" as a result. Both Nakayama and Krizek find this strategic positioning of whiteness with nationality as part of a process which is rooted in the historical practice of granting citizenship to white males. Researchers like Nakayama and Krizek (1995) and Shome (2000) suggest that deconstructing whiteness is an important approach in addressing the root causes of racism in the United States. Shome realized that we are taught to see representations of the KKK and other hate groups as racist, but the "everydayness" of racism is something that continues to elude us. Hall (1995) refers to racism as being one of the more "profoundly naturalized" forms of ideology. This concept of connecting racism to ideology is important because it does not shy away from how racial attitudes are embedded in the images and meanings around us. Sullivan (2006) notes that modern racism has shifted from the vantage point of white supremacy to white privilege.

Because whiteness tends to remain hidden it is a challenge to determine the ways in which white privilege manages to manifest itself in discursive practices. One way in

which a possible framework for whiteness has been developed was through a qualitative analysis that unmasked the discursive strategies that white people engage in to reinforce their own white privilege. Jackson (1999) conducted a focus group study with white students who were attending two predominately black universities. One of the purposes of this study was to see if the students resorted to identity negotiation or code switching behaviors in their roles as students. What this research revealed is that privileged practices managed to be maintained even when the participants entered environments where they were not considered to be in the majority demographic. Jackson's study revealed five ways in which whiteness could be mapped in discursive practices.

First there is "*whiteness as incompletion*", where respondents could not give a specific response as to what it really meant to be culturally a white person (Jackson, 1999). When asked what it is to be "white" the responses were often vague and ambiguous. For some, to be white is the same as being able to self identify as American which is also a discursive practice uncovered by the Nakayama and Krizek (1995) study. This incompletion suggests that to be a white person is to essentially have no cultural markers or identifiers. Discursive practices discovered by Nakayama and Krizek, and then again by Jackson, suggest that to be white or American is to be just like everybody else and that the values and outlook reflects nationality instead of race.

Another discursive practice uncovered by Jackson (1999) is "*whiteness as uninterrogatable space*", where respondents consider being white to be the standard to which other individuals need to conform. This tendency to be the center is a practice which non-whites are expected to aspire. Participants in Jackson's study indicated that they saw themselves as members of the dominant culture and that they never felt the need

to change their own cultural behaviors when interacting with students from different ethnicities or backgrounds. According to Monroe (2004) one of the challenges in bridging the digital divide comes from pedagogical practices which can prevent the material from being culturally relevant. In other words, teaching computers skills to underserved populations can be a challenge if the collective community voice is overlooked. Williams later addressed this during the 2009 digital divide series when she talked about encouraging populations to write and upload community histories (Appendix A).

A third practice uncovered by Jackson (1999) is the concept of "*whiteness as a metaphor for the universal insider*", where a white person can enter into situations and gain a level of acceptance and trust. Respondents in the study considered it to be a given that when different cultures interact and communicate that there is some understanding of what constitutes normal behavior. Some of the behaviors noted by Jackson extend from the uninterrogatable space practices where students did not see any need to change or modify their own cultural practices to 'fit' into another environment. Another way in which this can manifest itself is in images of a white person who enters into a space where there are disadvantaged minorities and somehow manages to improve the living and working conditions of individuals. One example noted by Jackson is the movie "Dangerous Minds" where a white teacher transforms the lives of minority students who are from troubled neighborhoods. In other words, it is fairly simple for a white person to assume that privileges are an inherent part of entering into a given situation.

Another discursive practice is "*whiteness as guilty and fair space*" where being privileged is something that can be shared by everyone (Jackson, 1999). One of the basic

things that respondents in this study shared is that people are basically alike regardless of social and economic status. Participants in the study described engaging in a 'color blind' approach in their interactions with individuals. This also reflected a sentiment that that an "American" culture is one that is predefined and negotiated and does not need to be called into question. It could be argued that one way in which this manifests itself is in arguments that everyone can enjoy and participate in the same opportunities if they work for it.

Finally, there is "*whiteness as situationally immutable*", where the willingness for participants to negotiate their own cultural constructions involves meeting three conditions or the motivation to code-switch is removed (Jackson, 1999). These conditions involve how much time students have to spend on identity negotiation, their age and status as a student, and the perceived novelty of a situation. White participants in the study saw themselves as not having enough time to really spend on cultural identity due to the need to spend time on more important things like being a student or parent. Additionally, many participants who are non-traditional students felt more established in their individual identities and their purpose in attending school involved getting professional degrees. Finally, the novelty or newness of a situation was a motivator for some students, and respondents talked about behaviors such as adjusting their handshaking to meet a given situation.

Jackson (1999) argues that what this discourages white individuals from looking at their own identities as white individuals in interacting with non-whites. Additionally, the white students who participated in the study still expected their non-white peers to adapt their communication styles to fit a dominant cultural standard. It has been argued

that this lack of willingness to engage in looking at the practices of white identity can only serve to reinforce the practices of white privilege (Nakayama and Krizek, 1995; Jackson, 1999).

One of the goals of this study is to attempt to take what is understood about whiteness and move it beyond the scope of a white versus non-white perspective. What the literature points out is that whiteness is ultimately concerned with the language and the practices of privilege. It is within these discursive practices that the attempts to obtain BTOP funding can reveal hidden pockets of privilege. For example, while transcribing the digital divide series held at UIUC in Fall 2009, there were some elements that stood out. In the choice of guest speakers and presenters during the series, there was no involvement from the city of Champaign, the Champaign Public Library, or Champaign Unit 4 Schools. However, the city of Urbana, the Urbana Free Library, and the Urbana school systems were represented. Considering that the grant funding is designed to be the end result of a collaborative effort, this begs the question as to why key participants (and benefactors) in the process ended up being excluded from the lecture series. Could it be that the UIUC as a privileged institution incorporated some of the social constructions of privilege in their efforts to take part in bridging the digital divide? Considering the digital divide, it then becomes important to consider how discursive practices of privilege can influence attempts to build upon the broadband structure in the Champaign – Urbana area. It is with this in mind that the following research question and methodology is approached.

Research Question and Methodology

The plan for this study is to utilize the discursive maps of whiteness that Jackson developed to analyze the discursive practices regarding the attempts to bridge the digital divide in the Champaign-Urbana area. This leads into the following research question:

RQ: In what way does the discourse surrounding the efforts to bring broadband access to underserved areas reflect the discursive mappings of whiteness?

The materials analyzed in this study include meeting minutes from the BAC, transcribed lectures from the Fall 2009 digital divide series, articles and editorials from *The News-Gazette*, and comments featured on the *IlliniPundit* blog. Both the lecture series and *IlliniPundit* commentary are no longer available online, thus the artifacts are included as appendices to this study. Transcripts of the digital divide series were created from audio files which were downloaded shortly after the series ended. This study looked to include materials geared towards the entire Champaign-Urbana community and surrounding areas. The reason why articles and editorials from *The News-Gazette* were selected is because this newspaper is the only subscription paper based in Champaign-Urbana. Other newspapers, such as *The Daily Illini*, are free papers geared towards a university centered demographic. Prior to *IlliniPundit* being retired, this blog attracted a great deal of participation from members of the Champaign-Urbana community and surrounding areas.

Based on Jackson's study (1999) where he identified whiteness as incompletion, as uninterrogatable space, as the metaphor for the universal insider, as guilty and fair space, and as situationally immutable, this study is looking for specific characteristics

within the material. One aspect of privilege includes entering a new situation without having to make changes or adjust to a different environment. Additionally, privilege can involve going into marginalized areas with the intent to make changes, which will enable the space to conform to a broader standard. Resistance may be seen in the form of comments and editorials which presumes that anyone who wants broadband can easily obtain it, either through trusting private industry or just working hard for it. These are ways in which the language and the approach of privilege can manifest in efforts to make what are seen as needed improvements to a community.

The critical and discursive analysis will involve observing and interpreting the material and illustrating how it does/or does not meet the framework for whiteness. The next section will take a look at how Champaign-Urbana got involved in the broadband movement. Then the study will look at artifacts to determine how privilege may have played a role in efforts to obtain funding for the proposed projects.

Chapter Three: Bridging the Digital Divide in Champaign-Urbana

Formation of the Broadband Access Committee

Most of the history of current efforts to bridge the digital divide in Champaign-Urbana is based on meeting minutes posted online by the Broadband Access Committee (BAC). On May 15, 2008 a group of people gathered to discuss creating a BAC for the purpose of developing projects designed to bring broadband to the Champaign – Urbana Communities (Broadband Access Committee, 2008). The initial members of the BAC were comprised of members of the CU Cable Commission, the Urbana Free Library, the cities of the Champaign and Urbana, Champaign-Urbana Community Wireless Network (CUWIN), and the University of Illinois at Urbana-Champaign (UIUC). At the time, there were several separate projects taking place in both communities and Mike Smeltzer, from UIUC, informed the group that the U of I wanted to collaborate with both cities on a broadband project (Broadband Access Committee, 2008). This initial meeting established the various activities being made within the twin cities of Champaign-Urbana to establish an infrastructure that is independent of private industry.

During this initial meeting CU Cable Commission member Danielle Chynoweth suggested that a BAC could educate both city councils on the need to improve broadband access to both communities (Broadband Access Committee, 2008). Bill DeJarnette, representing Urbana, said he had fiber connections in place throughout both Urbana and Champaign County. DeJarnette would later give a presentation regarding Urbana's efforts to install broadband to UIUC students during the digital divide lecture series (Appendix J). CUWIN reported efforts to build wireless networks in Urbana and the desire to place connections in Champaign. Additionally, Jeff Hamilton shared

Champaign's plan to create a wireless/fiber network in the city (Broadband Access Committee, 2008). This meeting ended with recommendations to include other people such as Peter Folk, co-founder of Volo Broadband, and someone from the Champaign Public Library.

Later the BAC met on October 6, 2008 to discuss the status of proposals on the table (Broadband Access Committee, 2008). Mike Smeltzer brought up a fiber to the home (FTTH) project that was being submitted to the federal government. Smeltzer explained that the costs of this project would be split three ways between the federal government, the state, and local municipalities. At the time, this proposal had been submitted to the UIUC Chancellors' office, and included FTTH to a new housing project. The BAC discussed efforts throughout the country as possible models for FTTH plan. Both Chynoweth and DeJarnette vocalized concerns about keeping access out of the hands of private industry and allowing municipalities to manage the utility. Smeltzer informed the BAC at the October 30, 2008 meeting that the earlier funding proposal fell through due to budgetary cuts at UIUC (Broadband Access Committee, 2008).

This concept of FTTH was later discussed during the Fall 2009 lecture series at UIUC (Appendix B). The presenter was Mike Smeltzer who explained that FTTH would involve running fiber optic cable directly into individual households. Smeltzer explained that he got the idea for 'Big Broadband' from a conference he attended. Peter Folk, from Volo Broadband, explained that big broadband simply meant that a household would have upload and download speeds of 100 megabytes (Appendix I). Folk explained to the group that what would take 3.6 seconds to download at 100 megabytes would take 36 minutes to download at 10 megabytes (i.e. DSL/Cable). During the October 2008

meeting Folk expressed doubts regarding the infrastructure costs and suggested the BAC consider looking at wireless access (Broadband Access Committee, 2008). The BAC also discussed providing services to public places and not just homes. The group agreed that there was a need to investigate both infrastructure and service options (Broadband Access Committee, 2008). In 2008 the BAC discussed developing a mission statement, the progress being made by Urbana in installing fiber, and concerns over how the economic climate could impact plans to develop broadband/wireless Internet access.

In 2009, while gathering information for the current study, I attended two BAC meetings, and one of the lectures given in the digital divide series. Additionally, I also attended a meeting that Danielle Chynoweth called to discuss forming a 'Digital Justice Coalition' and took field notes (Appendix L). In Fall 2009 I attended one of the digital divide lectures held at the Graduate School of Library and Information Science (GLIS), and the speaker that day was Mike Smeltzer (Appendix B). That being stated, I am not a member of the BAC and my interest in the efforts to bridge the digital divide in the Champaign- Urbana is primarily that of an observer/researcher, and member of the community.

Opportunities for Funding

The year 2009 would bring some exciting developments in the efforts by the BAC. When the group met in January 2009 it was rumored that the new administration (Obama) would present opportunities for funding (Broadband Access Committee, 2009). Danielle Chynoweth had taken information gathered from the BAC, the cable commission, and local organizations, and shared it with people who were on Barack Obama's team. This information was intended to assist the efforts of the Obama

administration in developing policies that reflected issues such as net neutrality. Chynoweth also mentioned being concerned about rural access and the rights of municipalities to own their own broadband infrastructures (Broadband Access Committee, 2009). It was at this meeting the group adopted the following mission and vision statements:

> *Mission: To develop goals, options, and a recommendation for whether and how the Champaign-Urbana Cable Television and Telecommunications Commission should proceed in establishing an advanced broadband communications plan.*
>
> *Vision: The Champaign, Urbana and UIUC communities will benefit from universal, equitable access to an advanced infrastructure for public and private communications that is secure, affordable, and efficient. Such a network would serve to attract commerce, nurture cultural development, support education, and strengthen the fabric of our community overall (Broadband Access Committee, 2009).*

It was also proposed that core values including universal and equal access, reliability, open to everyone, educational, and making long term commitments to the project be included as well. Members agreed to start meeting on a monthly basis, and Chynoweth recommended adding people to the committee to increase the diversity within the group (Broadband Access Committee, 2009). At that time, the BAC was composed entirely of white members of the community.

In February 2009 Dr. Abdul Alkalimat, GLIS Professor, joined the BAC and gave a presentation on community informatics, as well as shared his work from previous

projects (Broadband Access Committee, 2009), According to minutes from 2009 and 2010, Alkalimat is the only black person to be on the list of BAC members. However, other minority individuals/activists did get involved in attending BAC meetings and the efforts to bridge the local digital divide. One person, Safiya Umoja Noble, a black doctoral candidate from GLIS, attended meetings on a regular basis, and helped develop a website for the purpose of offering public information on efforts to obtain grant funding (Broadband Access Committee, 2009, S. Noble, personal communication, February 6, 2010). The website cuopenaccess.org does offer information and maps regarding local efforts to bridge the digital divide, but is somewhat cumbersome and difficult to navigate, which is why it is not used as an artifact in the current study. Noble also became a key player in collecting the survey data used to apply for grant funding (Appendix C). However, Noble was not listed as a member of the BAC which left the demographics of the committee being predominately represented by white community members (Broadband Access Committee, 2009).

When Dr. Alkalimat joined the BAC, he informed the group that it would be vital for the BAC to include everyone it its efforts to bring broadband to both Champaign and Urbana. Alkalimat also presented research on local computing sites, developing an online community to connect local churches, the broadband stimulus package, a possible pilot program along Bradley Avenue in Champaign, and the need to develop a national center for community informatics (Broadband Access Committee, 2009). Ideas also discussed at the meeting included establishing a community technology center, holding public forums, and engaging in discussion and dialogue with the community.

A public forum took place on February 17, 2009 at the I-Hotel and Conference Center in Champaign. The presenter was consultant Joanne Hovis from the Columbia Telecommunications Corporation (Broadband Access Committee, 2009). Smeltzer would later comment that it was coincidental that they held the forum right when the American Recovery and Reinvestment Act passed (Appendix B). During her presentation, Hovis noted that the United States is behind other nations in broadband access, in 2001 the United States ranked at number four and, as of 2009, dropped to number 15. The slower speeds which affect both American households and businesses puts the United States at a disadvantage compared to other industrialized nations (Broadband Access Committee, 2009). This gap between the United States and other nations was also addressed by Sascha Meinrath and Brian Bell during the digital divide lecture series (Appendix D; Appendix H).

Hovis explained that having a big broadband connection would enable people to engage in quality teleconferences, and do more efficient telecommuting, but it would pose a threat to the monopolies that are currently held by telephone and cable companies (Broadband Access Committee, 2009). She urged the BAC to make sure that grant applications for funding address specific areas including:

- Providing access to underserved communities, and building support networks to include hospitals, libraries, schools, and other public agencies.
- Show that the communities will support the projects with matching funds and show commitment to the goals of the grant.
- Be able to prove that the money is needed for the project and will be impossible to achieve without the financial aid.

- Demonstrate that the services will be efficient, that the community has the ability to implement the project, and meet the non-discriminatory, open content, and service conditions set by the grant (Broadband Access Committee, 2009).

Hovis told the audience that she believed that there would be a lot of competing applications for the grant money. She recommended that the BAC work quickly to gather the information that would be needed to apply for the grant. One interesting situation which emerged from this presentation is that BAC member Peter Folk, who is co-owner of Volo Broadband (a local ISP), directly challenged technical aspects of Hovis's presentation, and pointed out where he felt that she was being misleading regarding the technical capacities of wireless at the next BAC meeting (Broadband Access Committee, 2009). Much of the focus during this meeting centered on providing information and education to the public regarding broadband, and how the technology can be of use.

At this point the BAC became focused on the stimulus package and understanding what the application process would entail. During their April 2009 meeting Smeltzer announced that the grant rules would come out in June, and there was continued discussion on educating the public. Alkalimat also noted that it would be essential to reach out to parts of the community that may not be well represented. The group also talked about community models, including an FTTH project in Powell, Wyoming, that had been completed (Broadband Access Committee, 2009).

The next community meeting took place on May 9, 2009 at the Urbana Free Library. During the presentation Chynoweth compared broadband services to public libraries; her argument being that broadband is an important asset that should be made available to everyone (Broadband Access Committee, 2009). She let the audience

members know that FTTH would provide significantly faster speeds to households and result in a community that is connected. Smeltzer shared that the proposal would build eight fiber rings in the community, build out to lower and middle income sections of town, and the network would allow multiple providers to use the fiber rings (Broadband Access Committee, 2009). In the future people that want the service can pay to have it installed in their homes.

During this town hall discussion GLIS student Safiya Noble noted that low income groups in Champaign-Urbana were not well represented in the discussions that were taking place (Broadband Access Committee, 2009). During the digital divide presentations she also discussed how a survey within the community was conducted to gather information for the grant application (Appendix C). Noble asked the audience to consider the involvement of organizations, how the money is distributed, the role of CTC's, who will run the network, and issues of accountability (Broadband Access Committee, 2009). Chynoweth then had the audience break up into small groups and come up with ideas regarding the use of broadband. Minutes from this town hall listed the feedback that was given in areas which included connectivity, the role of libraries, public control of resources, and how to reach out to the community (Broadband Access Committee, 2009).

At this point, what is starting to emerge is a pattern of individuals like Chynoweth, Alkalimat, and Noble taking notice that not everyone who is being affected by the possible grant proposal is being represented. While it appears that the BAC is acknowledging this, neither does it seem like any concerted efforts are being made to be inclusive, except on paper. This pattern will be reviewed in chapter four when looking for

traces of whiteness. This next section takes a look at how the BAC approached the grant writing and application process.

Putting the Proposal Together

On May 18, 2009 the BAC met to discuss their progress in regards to big broadband. Bill DeJarnette said the legal teams of both Urbana and Champaign were mapping out strategies in regards to the grant proposal (Broadband Access Committee, 2009). Chynoweth, Smeltzer, and Noble had made presentations to minority contractors and the Black Chamber of Commerce. It was noted that residents were becoming aware of funds available, but the details regarding how to get funding were unclear. Chynoweth suggested getting different groups and community leaders to participate in the grant writing process. Someone expressed concerns over letting UIUC manage the project, due to a poor record that the university has with doing business with minority contractors. There is a basic concern that minority owned businesses will not benefit from the grant proposal (Broadband Access Committee, 2009). The website called cuopenaccess.org is up and running and it was suggested that a blog could be developed for public input.

In early June Smeltzer informed the BAC that the rules for application were expected sometime during that month with a 60 day window to submit the proposal. Folk gave some feedback on the community forums and said that, while the stimulus grants are being covered, there is a lot of information missing in terms of education (Broadband Access Committee, 2009). Another BAC member, Fred Halenar, said that while there is support for the project, vulnerable populations are still being under-represented. Noble replied that she had met with organizers in the populations that are not represented, and the people there are willing to offer their perspective. Chynoweth introduced the

Broadband Access Advocate from the Urbana-Champaign Independent Media Center (UCIMC) and said that people were ready to start the writing process. The organization of different parts of the grant writing process was discussed as well. Each writing team should have a member of the BAC included (Broadband Access Committee, 2009).

When the BAC met on July 10, 2009 Smeltzer reported that the NTIA rules had come out and grants covering four different areas would be submitted (Broadband Access Committee, 2009). There is a lot of discussion regarding who gets the grants, who qualifies for services, and what structures to follow. The BAC met on July 13, and it was established that the NTIA was looking for "underserved" populations in their target demographics. Noble told the committee a door to door survey was expected to be completed within two weeks. Later, during the digital divide lecture series, Noble told participants that the NTIA definition of an underserved population looked for less than 40 percent broadband usage within a given area (Appendix C). People from the writing teams reported updates on the progress they were making on the proposal (Broadband Access Committee, 2009).

At the BAC meeting in August 2009 Smeltzer said he put in a grant to the state of Illinois for matching funds to the federal grant (Broadband Access Committee, 2009). The federal grant applications were close to being due, and Smeltzer said the applications were being edited and reviewed by the grants office at UIUC. There were concerns that making map, survey, and other sensitive information public would give AT&T and Comcast the tools they needed to launch a challenge to the proposal. Chynoweth noted that documents that were promised to be shared had not been posted, and she was concerned that it would have an impact on the perceived credibility of the BAC. It was

also noted that UIUC has a cultural history of not sharing documents. It was pointed out by another BAC member that information on the proposal could be obtained through the Freedom of Public Information Act (FOIA). As such, it would perhaps be best to make the information public anyway (Broadband Access Committee, 2009). There seems to be some confusion regarding who has control over this process. Alkalimat believes the grant will be stronger if the federal government sees UIUC as having stewardship over the project. This meets with some objection by Chynoweth who believes that the community should take the lead on the project, and she expressed appreciation for the contributions made by Smeltzer and Alkalimat (Broadband Access Committee, 2009).

As the process of writing and submitting this proposal unfolds it reflects a tension which illustrates a few things. First, while the involvement and support of UIUC is important, there is are some misgivings that the institution will take over the project and the community will be left without a voice. As noted earlier, concerns that people from underserved areas are not being represented are a part of a pattern which has emerged. After the grant applications are completed and submitted this tension continues to surface.

Submitting the Grant Proposal

On August 31, 2009 a group of people met at the Champaign Public Library to discuss some concerns regarding the grant writing process (Appendix J). Danielle Chynoweth handed out some materials and 'cliff notes' of what had been included in the grant applications. According to Chynoweth, grant writing participants, including members of UCIMC, felt shut out of the application process, there were concerns that the grant proposal wouldn't benefit everyone, and there needed to be community members

involved, who are part of social justice efforts (Appendix L). Another concern brought up regarded the creation of jobs that the proposal would bring to town. Chynoweth did not want to see students from Naperville, Illinois obtaining jobs that could otherwise be filled by local residents. Also present was Dr. Alkalimat who countered that the grant proposal, as it was written, would employ two thirds of people from the community and surrounding areas (Appendix L). During this meeting Chynoweth proposed forming a group called the Digital Justice Coalition.

BAC minutes from September 14, 2009 noted that Chynoweth mentioned the coalition, but the BAC mostly concerned itself with other matters (Broadband Access Committee, 2009). The main concerns revolved around the adoption of municipal broadband models, what services could be offered through a fiber network (i.e.: Internet only, Internet plus cable), how AT&T and Comcast would respond, and continuing efforts in public education concerning the grant (Broadband Access Committee, 2009). It was mentioned that the grant paperwork was available on cuopenaccess.org and another community forum was planned for September 26, 2009.

This community forum took place in the Urbana City Council Chambers. Peter Folk gave the audience a summary of the grant proposal which is split into four parts. Below is a basic summary of the grant proposal:

- Fiber optic backbone: This will connect over 137 schools, community centers, and public facilities.
- Building FTTH and connecting approximately 2500 households located in underserved census block areas.

- Investing in 46 public computing centers to provide access, training, and media production facilities open to residents.
- Encouraging and developing sustainable broadband adoption in the community, which includes a community helpdesk for computer users (Broadband Access Committee, 2009).

The forum also fielded questions and concerns from audience members. Some of the participants wondered if they would benefit from the FTTH option and were told that if they were in one of the 11 identified census blocks then they would have broadband by 2012. At that point there were no plans to extend to the rest of the community but there is supposed to be room to grow (Broadband Access Committee, 2009. Audience participants also asked about television and phone services. One member of the audience questioned the need for this since many people can get services for around 20 dollars a month. The participant felt that the grant application asked for too much money for too little benefit to the community. Other questions revolved around the creation of the computer labs, jobs, and how people will use the network (Broadband Access Committee, 2009).

Outcome of Grant Proposal

At this point, the grant had just been submitted to the government, and it was unknown if any funding would be awarded to the community for the proposed projects. The discussions reflected a certain level of anticipation that the original applications would be accepted and approved by the federal government. The original grant proposal included four different applications for funding as noted by the minutes of the BAC. According to the NTIA, the infrastructure application was the one grant which did get

awarded funding (National Telecommunications and Information Administration, 2010). As a result, in February 2009, the BAC started discussions regarding a second round of applications to obtain funding for public computing centers (Broadband Access Committee, 2010).

Wade (2010) reported that both the computing center and the sustainable adoption grants were turned down by the NTIA. As a result the question of whether or not the infrastructure grant should be accepted by both Champaign and Urbana ended up being questioned. As the approval process reached the final stages representatives in both communities were questioning the viability of investing city funds in the project (Bauer, 2010). According to Bauer, this grant would involve over three million dollars from both cities in matching funds and concerns were raised as a result. A consultant hired by the cities claimed that the main reason why low income households didn't have services was because they either couldn't afford it or just simply didn't want it (Bauer, 2010). The consultant also was concerned that the project would result in some cash flow issues for the cities. On the positive side the grant would connect business and agencies and the cities could then have the option to sell broadband to residential areas. On March 16, 2010 the Champaign city council voted to accept the NTIA funds (Wade, 2010). Bauer (2010) reported on April 12, 2010 that both cities and UIUC had accepted the grant money and were in the beginning stages of planning the broadband network.

Fall 2009 Digital Divide Lecture Series

One of the ways in which UIUC attempted to engage in public education was through a lecture series which was opened to the public. As noted earlier, I did attend one of the presentations during this series. The lectures took place at GLIS and, for a while,

both audio and video files were available on the GLIS website. For the current study I did download the audio files, but the video files were not working. Currently, the files are no longer available on the GLIS site so transcripts from these lectures are available in the form of appendices included.

The lecture series began on September 10, 2009 with an overview on the digital divide presented by GLIS Assistant Professor Dr. Kate Williams. Williams and Alkalimat worked together on digital divide issues in Toledo, Ohio and the knowledge they gained is being applied in the Champaign-Urbana area (Appendix A). Then UIUC's Mike Smeltzer presented an overview of the broadband proposal (Appendix B). The series also covered the process by which survey data was gathered and analyzed (Appendix C). Sascha Meinrath, who co-founded the local Urbana-Champaign Independent Media Center, and who is now Research Director of the Wireless Future Progam at the New American Foundation, discussed issues pertaining to wireless technologies and how policy has an impact on digital divide issues (Appendix D).

Additionally, the series included a presenter from the Urbana Free Library (Appendix E), and the Urbana school system (Appendix F). Andre Arrington, Executive Director, and Jason Keist, Program Director, of the Don Moyers Boys and Girls Club discussed the new computer lab that had just been installed in their facility (Appendix G). Maria Mobasseri and Brian Bell from Parkland College in Champaign discussed the role of the community colleges and how they can contribute to CTC's (Appendix H). Peter Folk, BAC member and president of Volo Broadband, offered a business perspective to students (Appendix I). BAC member Bill Dejarnette, who is information services manager for the city of Urbana, shared his experiences in contracting fiber-optic

installation throughout the city (Appendix J). The lecture series wrapped up with a presentation by UIUC alum Ryan Croke, who is working on broadband initiatives for the office of Illinois governor Pat Quinn (Appendix K).

This next section will review the efforts of the BAC, the Fall 2009 digital divide lecture series at UIUC, articles from *The News-Gazette,* and comments posted to the blog *IlliniPundit*. The goal is to understand how social constructions of privilege, in the form of whiteness, have managed to shape and frame the discourse surrounding this issue.

Chapter Four: The Revelation of Whiteness

BAC and the Digital Divide Fall Lecture Series

One of the recurring themes within the minutes of the BAC which kept appearing were concerns that the people in underserved areas, who were going to be most impacted by the grant funding, did not get the representation that was needed (Broadband Access Committee, 2009; Appendix L). It can be argued that this fits Jacksons (1999) mapping of *whiteness as situationally immutable*. Members of the BAC are able to recognize they need to be more inclusive in how they are approaching this grant funding, yet they seem to be unable or unwilling to take any actions which might facilitate the process. One example, which will be explored, is in the choices of the locations where public forums were held. This was an area which seemed to fit the comfort level of the BAC, instead of considering how and where people would want to be approached. In order to be more effective in inclusiveness, there needs to be a willingness to look at how one's own communication and cultural practices serve to be a hindrance to the process.

It also appears that there was some reluctance to identify what it means to be an "underserved" area in the community. The NTIA established that underserved areas were populations that had less than 40 percent broadband penetration (National Telecommunications and Information Administration, 2010). The digital divide series covered the research process that was done to identify the areas which ended up being surveyed. It took a door to door survey by UIUC to establish the 11 census blocks which met the criteria established by the grant opportunity (Appendix, C). Researchers from UIUC utilized population data received from the cities to design the survey. Later in the discussion, Mary Alice Wu noted that the area being targeted by the interviewers was

located primarily in the "North End" of Champaign (Appendix, C). The results of the survey ultimately helped identify the "Yellow Zones" mapped out in Figure 1. As noted earlier, these zones are located in parts of the community which has a history shaped by racist practices.

In Champaign, the yellow zones fall under the district which is represented by city council member William Kyles. Council member Kyles (personal communication, February 1, 2010) shared concerns given to him by constituents who felt that they did not have sufficient input in the development of plans to bring broadband to the area. When Danielle Chynoweth put out a call for a "Digital Justice Coalition" one of the biggest complaints revolved around concerns that people were left out of key aspects of the grant writing process, and there needed to be better representation (Appendix L). Even though the UIUC did a survey in the area, and public forums were held, there is still a lingering belief that people were left out of vital discussions. It's important to examine why this may be.

One of the things the BAC minutes have identified is the location of where public forums have taken place (Broadband Access Committee, 2009). The first session held in February 2009 took place at the I-Hotel and Conference center in Champaign. According to the website, the I-Hotel is located in the heart of the research park associated with the University of Illinois on First Street in Champaign (http://stayatthei.com, 2010). In September 2009 the forum was held at the Urbana City Council chambers on Vine Street (http://www.city.urbana.il.us/, 2010). Both of these locations are not located within easy walking distance from the yellow zones. When Brian Bell gave his presentation during

the digital divide series, he noted that when he ran a computer lab out of the urban league, his students lived within walking distance (Appendix H).

When the urban league closed its doors the lab moved to the unemployment center located in a different part of town. Bell said that, even with offering individuals bus tokens, he found that none of his students felt comfortable going to the new location (Appendix H). Of over 200 people who went through the training at the old urban league building he was unable to retain anyone due to the location. What Bell learned is that people are only going to attend places that are comfortable to them. One local community space, Douglass Park Library, is located in the yellow zones, yet there is no indication from the BAC minutes that any public forums were held there.

This appears to fit Jacksons (1999) *whiteness as uninterrogatable space* where being part of the dominant culture is the standard that everyone else needs to conform to. If people who live within the yellow zones are underserved, then it's up to them to attend places like the Urbana city council chambers, or the I-Hotel which is not located in their neighborhoods. As long as members of the BAC make some token efforts at education, without considering place and location, it absolved them of any responsibility from reaching out to the people who are in the greatest need.

As noted earlier, when Mary Ann Wu discussed the survey during the digital divide lecture series she specifically referred to the yellow zone areas as being located in the "North End" of Champaign (Appendix C). According to eBlack Champaign (2010), the north end of Champaign became predominately, and almost exclusively, Black as a result of discriminatory housing practices. As a result, it can be argued that when people make reference to the "North End" of Champaign, it is essentially a code word intended

to describe a Black neighborhood. So even if race is not referred to directly in local digital divide discussions, nonetheless, the overtones do exist. This is an important thing to consider in evaluating this situation.

The volunteers who participated in gathering information door to door had to follow specific guidelines in their work. Guidelines included being safe, everyone had to work in pairs, carry a cell phone, and not enter anyone's house (Appendix C). The researchers did specify that having men pair with women would result in more households being likely to participate in the surveys. That being said, the volunteers managed to complete surveys with 456 respondents over the course of four days, which was later described as being an "incredible amount" of data collected (Appendix C). This became an important component in the grant application for funding (Broadband Access Committee, 2009).

One of the volunteers who went door to door was Bill DeJarnette, Information Services Manager for the city of Urbana; he discussed his efforts to build fiber connections in Urbana and Champaign County (Appendix J). BAC minutes also listed DeJarnette as a member of the BAC team (Broadband Access Committee, 2009). During this presentation, he mentioned taking part in the survey and was asked about going into parts of town that were not familiar to him. His response was that most people make certain assumptions in order to live and that can involve staying away from certain places after 2AM, and he acknowledged that these assumptions may not always be the correct ones (Appendix J). This is consistent with Jacksons (1999) *whiteness as a metaphor for the universal insider,* because it describes how someone can enter into unfamiliar territory with the intent of making improvements and changes.

This element of being the universal insider is one that appears to have played a role in the process of making the applications for the grant. The underlying assumptions that appear to emerge here include knowing what is best for a particular segment of a local population, and the belief that people can be studied for the purpose of obtaining funding to build an infrastructure. This is also reflected in some of the resentment which stemmed from participants who took part in the grant writing process, finding that their contributions were not included in the final applications that were sent to NTIA (Broadband Access Committee, 2009; Appendix L).

Dejarnette also mentioned that on every block he surveyed there was at least one person who had a computer and Internet access (Appendix J). He credited this to the policy that the cable commission had established where the cable provider was required to provide services to everyone in the Champaign-Urbana area. It was noted during his presentation that developing policies which prevented utilities from discriminating in their services had a direct impact on the access (Appendix J). Mike Smeltzer noted that AT&T was rolling out their own television service, but because they have a state franchise, can avoid the lower income areas in the community (Appendix B).

Smeltzer also said in his lecture that one of the concerns he heard regarding installing FTTH was questions regarding possible gentrification (Appendix B). The concern is higher broadband speeds would make the properties more valuable to developers who would force poor people out of their homes. He countered that once people get FTTH, then chances are, the rest of the community would want to invest in the product. It's interesting that Smeltzer shared concerns regarding gentrification, and then proceeded to offer reasons why these fears were not pertinent to the current situation.

There is a certain element of Jacksons (1999) *whiteness as uninterrogatable space* because being part of the dominant culture does not always allow room to be questioned or challenged in a critical way.

Another presenter, Jason Keist talked about his experiences as program director of the Don Moyer Boys and Girls club (Appendix G). He talked about how he learned, through a survey, that many of the kids he worked with had computers at home. Keist shared the data he gathered and his numbers were met with some skepticism during his presentation. It was as if the expectation existed that people who attended the club would be a lot poorer in technology than they were. It was also shared that the Boys and Girls Club had installed a state of the art computer lab through obtaining grants and funding from various sources (Appendix G). At one point Dr. Alkalimat had audience members engage in role playing as if they were consultants to Keist, resulting in a number of questions being asked, and suggestions offered. The suggestions included looking at the condition of the hardware that kids have at home (condition/age of computer), are there people who are not being reached by the club, asking parents what the kids do on computers, and becoming producers of their own content (Appendix G). Overall, the suggestions did reflect an awareness of utilizing a space, such as a Boys and Girls club, to reflect the voice of the participants.

As this process of obtaining NTIA funding for broadband initiatives moved forward, the efforts of the BAC did receive media coverage from the local newspaper, *The News-Gazette*, and when the cities voted to accept the grant money, it generated some reactions on a local blog. This next section will take a look at articles and

commentary to see if the discourse reveals elements of whiteness and privilege as this story has unfolded.

News Coverage and Public Reaction

News reports were able to give out information regarding the grant applications and provided the public with details on what the project would do. Monson (2009) shared details on the building of fiber rings which would connect schools, agencies, hospitals/clinics, the police/fire department, city buildings, and other vital resources in the community. Also reported were the FTTH proposals and the cooperative efforts between the two cities and UIUC (Monson, 2009).

On May 7, 2009 an article appeared in *The News-Gazette* (2009) announcing the public forum being held at the Urbana city council chambers. The article quoted BAC member Jeff Hamilton as saying that the committee wants to gather feedback on the merits of putting in a high speed fiber optic program in the area. At the end of the article it was noted that the stimulus package included seven billion dollars in funding for broadband services in underserved communities (The News-Gazette, 2009). The newspaper later reported on the results of the survey noting that the expectation that Champaign –Urbana would have more underserved areas in town was not met (Monson, 2009). Monson reported that more low income households in the area had high speed Internet than what was originally thought.

During the digital divide series, the survey results were met with a certain level of concern and surprise (Appendix C). However, the newspaper responded with an editorial with the headline "What do the poor really need" (The News-Gazette, 2009). In looking at the plans to implement broadband into the community, the commentary referred to it as

"Buck-Rogers Techno-Wizardry" and posited that low income areas would benefit more from basics such as food, clothing, and jobs. The cultural reference to Buck Rogers is interesting. Rogers was a comic book hero whose exploits ran from 1929 through 1967 and is a science fiction superhero (http://www.buck-rogers.com/comic_strip/, 2010). The background of the Buck Rogers character describes him as a WWI pilot, who after being transported 500 years into the future, winds up fighting evil forces. The overall impression that the article leaves is that while super fast broadband sounds like a good thing, it begs the question of its necessity.

Another underlying assumption that the editorial takes is that people who don't have broadband simply cannot afford it (The News-Gazette, 2009). This is misleading, because the survey was not designed to determine the reasons for not having broadband (Appendix C). During the digital divide series, Dr. Alkalimat commented that the survey results actually illustrate that individuals see the value in the technology and are willing to pay for access (Appendix C). Monson's (2009) report did not specify *why* some low income households qualified while others did not. However, the article did state that the locations of the qualifying households were north of University Ave in the Champaign-Urbana area aka the "North End". As such, it is reasonable to question whether social constructions of whiteness have influenced the perceptions shared in this editorial.

Jackson's (1999) *whiteness as guilty and fair space* posits that everyone can enjoy and benefit from the same benefits and privileges if one works for it. *The News-Gazettes* reference to poor people needing clothing and jobs more than Internet access reflects that. The assumption that is being made by this particular editorial implies that being poor is due to the lack of employment, or decent clothing. Additionally, this editorial begs the

underlying question as to why should the government or taxpayers spend money on what can already be provided by private industry (The News-Gazette, 2009). If private industry is already offering competitive rates for items like cable television, cell phones, and the Internet then why is it necessary for the cities or the university to come up with a percentage of the costs to cover this project? In other words, why spend the money if only a perceived small percentage of citizens are going to benefit from this. One could argue the mythical character of Buck Rogers managing to pull himself up by his bootstraps in a futuristic society and was able to be on the same playing field in spite of the differences of time and space.

The above editorial appeared on *The News-Gazettes* website (http://www.news-gazette.com/) and a few readers offered their comments. One individual posting as "Joe Sixpack" felt that if the government was going to make the Internet free, then we might as well make housing, medical care, as well as offering free education, since the costs were already reduced by the "welfare class". To be a Joe Six-Pack is to be basically a common working blue collar male (http://www.merriam-webster.com, 2010). The choice of online identity, along with the comments offered by Joe, is another example of Jackson's (1999) *whiteness as guilty and fair space.* The use of language such as referring to people as members of a "welfare class" appears to carry an assumption that low income individuals are unwilling to work for things, such as food, housing, education, and the Internet.

In January 2010 another news article appeared with the headline "Skepticism increases over Big Broadband" (Wade, 2010). This article appeared as if the Champaign city council would not accept any funds should the grant be approved by the federal

government. Champaign Mayor Jerry Schweighart stated that, while Champaign may benefit from the project it, was not something the current economy would likely support. (Wade, 2010). Additionally, council member Dave Johnson had some concerns over whether or not broadband was a priority for the community. Wade's (2010) article reported that a consultant hired by the city questioned how cost effective the project would really be.

Interestingly enough, Wade's (2010) article also stated that BAC member Peter Folk, CEO of Volo Broadband, had sent out an email asking the council to consider alternative projects. While the news article did not identify Folk as a member of the BAC, it's interesting that this report makes it appear as if Folk did not support the broadband project. Folk later stated in a post to IlliniPundit that he was in support of a sound community owned infrastructure that offered open access to providers (Appendix M). Folk takes credit for writing the mission statement for the BAC, but expressed concerns that the plan that the committee came up with was not as sustainable as he would have liked.

This is significant considering that Folk is listed, as a BAC member, on the April 12, 2010 minutes posted online (Broadband Access Committee, 2010). Because Folk does run a local ISP, it stands to reason that he would have a financial stake in the outcome of the efforts made by the BAC. This particular internal tension can be one that is reflective of internal group dynamics, as opposed to constructions of privilege and whiteness.

Considering the previous editorial by *The News-Gazette* and the article published a few months later, it appears as if the reporting is somehow reflecting a privileged

approach in regards to efforts to bring broadband to Champaign-Urbana. There is a theme of how this initiative is costing too much money and with too little return. Not enough people in the community are going to benefit from the initiative, and private industry is able to do an effective job of providing services. Wade (2010) did note that there was support from people who believed businesses and new industry might be attracted to an area with state of the art fiber rings.

In looking at Jackson's (1999) *whiteness as uninterrogatable space,* where being part of the dominant culture makes it possible to set the standard by which everyone else is expected to live by, it's no surprise then that both support and criticisms of the proposal can take the business and industrial perspective. On the one hand, it can be argued that the available internet service providers are capable of providing what the grant proposes, yet if a community can eventually offer better services at higher speeds that could attract businesses and money to the area the potential is there to create jobs, and generate revenue. Champaign city council member Marci Dodds would later comment that she wanted to insure the project would be efficient from a business standpoint (Ibrahim, 2010). Additionally, the consultant hired by the cities later noted that if the city could sell broadband to businesses, then the possibility existed for revenue to be generated to make the project more cost effective (Bauer, 2010). When the project is presented from a business and revenue generating perspective, then it is more appealing to city governments. One advantage in understanding the communication and cultural practices of privilege is that it can result in developing persuasive arguments that can result in making structural changes.

Once the infrastructure grant was approved and the cities voted to accept the funding the local newspaper issued another editorial. With the headline "Projects costs can't be ignored", concerns were expressed that city, state, and federal governments were already hurting for cash (News-Gazette, 2010). Below the News Gazette stated:

> *The sophisticated project is intended to establish fiber optic rings around the community linking government agencies, schools, hospitals and libraries and still have room for private businesses and homes. But doesn't that sound an awful lot like what private Internet service providers already offer in C-U. . . It is, of course, hard to resist the lure of a plan that is all about the future, and nothing has the future written on it like Big Broadband. The computer revolution and society's subsequent exploration of cyberspace has been breathtaking to witness. The Internet is changing the world in ways seen and yet to be seen. That is the lure of Big Broadband. It apparently is going to be way cool, bigger and better than what's currently available. Here's the problem. All the participants in this grant project are either broke or cash-strapped yet still happily committing themselves to major expenditures. But that financial reality hardly seems to matter* (The News-Gazette, 2010).

This presents a belief that private industry is perfectly capable of providing the resources needed in the community. Additionally, the Internet is seen as being a nice big expensive toy that people are going to buy without regards for the consequences. Once again, looking at Jackson's (1999) *whiteness as guilty and fair space,* it can be argued that the theme of working for what one wants, being willing to delay buying or purchasing cool

toys, and setting the right priorities are dominant in the discourse brought about in the online editorials by *The News-Gazette*. Plus, why pay for something that is already being provided to the community by private industry? These concerns also emerged on a local blog called IlliniPundit where participants shared similar perspectives (Appendix M).

IlliniPundit was run by Gordy Hulten who closed the site when selected to fill a seat on the Champaign city council on April 20, 2010 (http://www.gordyforcouncil.org, 2010). Before Hulten shut down IlliniPundit, the blog which did generate a number of responses when the cities voted to accept the broadband grant money (Appendix M). As noted earlier, one of the reasons why this blog was chosen as an example was due to the fact that community members did post on a regular and frequent basis, and the site maintained an active level of traffic.

On March 2, 2010, IlliniPundit posted an article from *The News-Gazette* regarding the upcoming decision to vote on accepting funds for the grant proposal and got these responses from some of the participants (Appendix M).

- "If the goals of the other accepted proposals are similar to CU's, this is a huge waste of $160,000,000 in federal dollars. It is also a big waste of local dollars - writing grant proposals, hiring consultants, trips to DC to lobby" - **redstatewannabe**
- "It is still not clear to me how this will help those with low incomes since there is no funding to help them purchase a computer, connect to the internet, and pay the monthly charge; let alone any up keep and updating that a computer needs over time. For this amount of cost, one ought to be able to be far more creative to help the lower income citizen get connected to the internet. And just where are the

matching funds to be found without increasing taxes by the communities and where will the university find this type of money?" – **Pattsi Petrie**

- "I thought we had a budget crisis....this seems to be an enormous amount of money to be spent when times are supposedly," tough". It appears there's a lot more bucks floating around than one would originally [think]. What exactly is the local government's financial share if this grant is accepted?" - **JohnBoy**

Some participants, who appeared to support the proposal, pointed out that the United States lags far behind in broadband speed compared to other countries. Yet, there was a common concern from some participants that, with a budget crisis, it wouldn't be wise to approve of the grant and invest money in the project.

On March 16, 2010, IlliniPundit posted another article from *The News-Gazette* announcing that Champaign had approved the funding for the grant. Below are some of the responses the decision provoked:

- "WOW. When the City says that they are poor, remember this stupid decision." – **Anonymous**
- "I don't understand why this is bad for Champaign. $20 million dollars gets dumped into the local economy and some poor kids get internet. Can someone provide a link or an explanation of why it's bad?" – **Anonymous**
- "I think the problem is that the federal government is broke. Any money they give us contributes to the federal debt. In essence, this project will be built on the US credit card with China. Assuming that isn't a problem, and assuming that the cities, and the U are correct that they're broke, too, then where will they get their $4 million plus the money it costs to operate this system in the future. I think

people are saying to wait until the economics of this improve. No one is arguing about poor kids and internet." – **Champaign Dweller**

- "Why should I provide internet to some kid out of my tax money, there are computers at the library both downtown and at Douglass Park, there are computers in the library at school and in the IT rooms. I provide through my tax money, free breakfast, and lunch. I probably provide the WIC card too, along with no book fees at school. Now, should I also provide this child with a cell phone when my own child doesn't have one?" – **Anonymous**
- [In response to Champaign Dweller] "Well, I am willing and cold hearted enough to have that argument. I figure if people need to provide the internet as charity to the poor, negotiate to buy it wholesale from Comcast and deliver it through the existing cable lines. Is that so crazy? It certainly seems like the cheaper and more cost effective approach. Part of me isn't even that [sympathetic] to the idea of providing it as charity anyway. Has anyone ever noticed how many Mobil homes near 1-74 in Champaign and Urbana have satellite dishes? I keep a frugal budget and do not splurge on cable or satellite. I figure some people spend around $100 per month on TV in these neighborhoods (instead of grabbing the free TV out of the air). Obviously, some [poor people] have very poor priorities. And I for one feel that some people have spending problems instead of income problems." – **Anonymous** (Appendix M).

This thread did have some individuals who supported the grant proposal and, amongst the ones who objected, there was the lingering theme of seeing the initiative as throwing money away. Additionally, the comments regarding poor kids getting 'free'

Internet and cell phones reflects Jackson's (1999) *whiteness as guilty and fair space* because participants saw the Internet as a luxury. Additionally, having a computer and access to the Internet is something that is available to anyone who makes good choices and works hard. This is similar to the tone adopted by *The News-Gazette* in their earlier editorial.

As one of the *IlliniPundit* posters pointed out, there is Internet access available at the library. On the surface it would appear that this accessibility should be more sufficient to gain the type of proficiency needed in order to be competitive in a larger marketplace. However, when we look back to the work that Hargittai (2010) conducted with college students who had grown up as "digital natives" the socioeconomic implications is something that can't be ignored. Privilege is something that can be equated, not only with access, but with the ability to use the technology in ways that can reaffirm and strengthen ones advantages.

Additionally, when Parkland College instructor Brian Bell started working with the unemployed, he found that many of his clients did not have the skills they needed in order to even begin to look for jobs (Appendix H). It can be argued that library access is insufficient to really begin to address the differences in basic computer literacy skills amongst users. This is where the use of CTC's end up becoming vital, not only in providing access, but in also serving to enable people to develop the basic skills needed in order to effectively use the technology (Appendix, G; Appendix, H).

In reviewing the discourse from the BAC, the 2009 digital divide series, *The News-Gazette*, and *IlliniPundit,* it can be argued that the text does end up framing whiteness. In particular, the notion of *whiteness as situationally immutable, whiteness as*

a metaphor for the universal insider, *whiteness as uninterrogatable space*, and *whiteness as guilty and fair space* are ways in which whiteness reveals itself in this study. The next chapter will address the research question and offer ideas on how the material gathered for this research can be applied in the future.

Chapter Five: Discussion and Conclusion

Answering the Research Question

This study looked at efforts which took place in Champaign and Urbana, Illinois to obtain grant funding from the NTIA to bring broadband to areas identified as underserved. Additionally, the response of both the local newspaper *The News-Gazette*, and the blog IlliniPundit to these efforts were considered as well. Using the framework of whiteness established by Jackson (1999) this study sought to answer the below research question:

RQ: In what way does the discourse surrounding the efforts to bring broadband access to underserved areas reflect the discursive mappings of whiteness?

What the study revealed is that elements of whiteness did surface both in the efforts to bring broadband access to underserved areas, as well as the response to those efforts. There were some differences in terms of how whiteness revealed itself these areas.

For individuals who worked to obtain funding as part of the stimulus plan, the rhetorical mappings of *whiteness as situationally immutable, whiteness as uninterrogatable space,* and *whiteness as a metaphor for the universal insider* became ways in which whiteness surfaced. One theme that did emerge in this process revolved around how area residents, who lived in underserved areas, expressed concerns that their voices and opinions were not being heard. The construction of *whiteness as situationally immutable* applies because members of the BAC apparently did not see the need to adjust or change their approach to fit the situation. This is reflected in the choices that were made by the BAC to hold their public forums in locations which may have reflected their own comfort zones. By choosing locations that were not within walking distance from

underserved areas, the BAC also placed the burden of learning about these opportunities on the people who would have the most impact.

This expectation that individuals would go to inconvenient places and spaces also reflects the element of *whiteness as uninterrogatable space*. After all, if a person who lives in an underserved demographic wished to learn about funding opportunities, then it is reasonable to expect that person to go to any location. As noted earlier, the locations where people met and collaborated were not located in places that were easily accessible like the Douglass Park library, which is located in the heart of northern Champaign. As the BAC started discussions regarding resubmitting applications that had been turned down, Mike Smeltzer noted that there was some hard feelings which stemmed from how the grant process had been handled (Broadband Access Committee, 2010).

It's also interesting that the underserved areas also served as a place for *whiteness as a metaphor for the universal insider*. After all, by proposing to bring FTTH to underserved areas, and conducting surveys, the participants were able to enter into an unfamiliar space with the expectation of making improvements. When the numbers came back reporting a smaller percentage of underserved areas than what had been expected, it appears that there was an element of disappointment. It can be compared to going into a house with the expectation of having to do major renovations, only to find that a coat of paint, and some minor repairs are what is truly needed. As a learning tool, it can be suggested to consider what expectations are being employed when one is engaged in community service or volunteer work.

The one discursive mapping which showed up in both the efforts to bring broadband to underserved areas, as well as the reaction to the initiative was *whiteness as*

uninterrogatable space. While on the one hand, you can have people who are expected to be able to leave their own cultural comfort zones to learn about opportunities; by that same token, acceptance of the grant can be done in such a way that members of the governing class can still avoid looking at their own cultural constructions. This is exhibited in the form of saying that broadband can be good for the community through the potential to attract revenue and resource. From the standpoint of finding selling points in policies and changes, this is can be useful to understand.

Regarding the objections that were seen as the broadband initiative unfolded, this fitted the discursive mapping of *whiteness as guilty and fair space.* This is reflected in the sentiments which saw Internet access as a luxury. Private industry is capable of providing services to everyone, and anyone who works hard and manages their money wisely can afford it. This also surfaces in questioning the wisdom of government programs designed to invest in local broadband infrastructure, especially during an economic crisis. As one editorial asked, wouldn't it be better to provide job training to someone who is poor so that person can eventually afford access (The News-Gazette, 2009). This does not consider what Brian Bell encountered when he moved from the former Urban League building to the unemployment center. His students went from being exclusively minorities, to people who were over 40, unemployed, and without the computer skills needed to find jobs (Appendix H). It can be argued that the benefits of Internet access and computer ownership are far more complex than simply being employed and willing to work hard. This leads into some ideas that can be applied to future research.

Deepening the Divide

While the study looked at efforts to bridge the digital divide in Champaign-Urbana, there are still ways in which this topic can be investigated and examined. As noted by Brian Bell, his own observations of the digital divide changed when he went from one location to another. In his work with the unemployed, he found that many of his students didn't even have computers (Appendix H). He also shared how some of his clients lived in rural areas where broadband access wasn't available. With him was Maria Mobasseri, who chairs the computer science and technology department at Parkland College, who shared her own perspective on the digital divide. From her own perspective, she saw divides along gender lines in that women are still being steered towards professions that are geared more towards the office professional instead of technical arenas (Appendix H). Future research can take into account the different ways in which inequalities continue to emerge amongst different groups of people. The appendixes attached to this study can be utilized to both inform and generate avenues of study.

As noted earlier, one of the things that stood out was the way the lecture series was presented. Speakers represented the BAC, UIUC, the Urbana Free Library, Urbana schools, and the city of Urbana. However, it appears that the city of Champaign was not represented during the series. This leads into a question of how university cultures relate to the communities that they are based in. In cooperative efforts such as developing a consortium to bring broadband to the area, how can institutions of higher learning wind up privileging a discourse? This is a question that future research can delve into and offer some answers and perhaps resolutions.

In closing, bridging the digital divide is an area which continues to be relevant. As older divides begin to narrow, newer divides begin to emerge. As Alkalimat observed, the challenge of scholarship comes with merging what we know in theory, to engaging in practical applications, for the purpose of finding solutions to these issues as they emerge (Appendix A). However, in order to find the answers, sometimes it is important to understand what questions need to be asked. This study hopes to encourage the development of these questions, and someday find the answers.

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Appendix A

September 10, 2009 Kate Williams Professor GLIS

What is the Digital Divide?

Dr. Abdul Alkalimat

The digital divide is, as we all know, is a fundamental issue as a society begins its initial stage of moving from the from the industrial to the informational and there are far reaching implications of this. Old inequalities are being repurposed and restructured so we now have new inequalities. Society has a history of moving from one set of inequalities to another and each stage is a challenge. Not only is it a challenge for scholarship to understand what these structural changes are, but also the question of policy, of how do we overcome these problems. So theory and practice, understanding and changing the world go simultaneously and that is the importance of this lecture series. That it's not going to be only a focus on theory, but more importantly it's going to be front line discussions of how the digital divide is being dealt with in institutional context via the city government, the library, the school, and the multiple organizational structures of the community. That is what our focus is in this lecture series, what is the digital divide and how can we change it.

Dr. Kate Williams 5:00

Background in Community Informatics – did the study in Toledo with Abdul Alkalimat.

Williams poses the question "What is the digital divide" and states that the answer is "Community informatics"

Williams made the comment that whatever field you end up in there is a tendency to find that area of study to be the answers to questions.

What is community informatics? It's a field rooted in the digital revolution that takes the information revolution as a starting point. It's a field that arose from questions about social issues and not so much technological issues. It's comparable to social informatics which is the larger discipline that community informatics comes from. Now we have computers what are people going to do with them? We look at local and historical communities as they meet up with transformative digital tools. What happens when continuity meets transformation?

What is the digital? Williams went back and to think about the history of the digital and going back to 5000 BC she discusses how a Quipu, a set of knotted strings used in Incan society, is still being decoded to determine their usage. But it's a digital tool in that there are knotted and unknotted strings assemble communication system. The difference

engine in the 1840's written by Ada Lovelace could do calculations. 1947 ideas are important lay down data trail using microfilm and then IBM machines are developed with women doing computations by hands. 1967 the idea of putting controls and the use of the hand held mouse. Two technologies came together to form what we understand to be the Internet.

History of hypertext – linking text to text to text Doug Englebart.

Origins of the Internet

The first four nodes on the Internet were in California universities. From a beginning of four servers the Internet has grown to contain over a billion servers. Changed from IP 4 to IP 6 which allows for more servers/IP address computers. 1970's TCP/IP - Transmission Control Protocol /Information Protocol that is what allowed information to be chopped into packets being sent across networked computers. Both hypertext and TCP/IP managed to bring us the world wide web.

Digital revolution in popular use and culture where one example is the cell phone where villages in Africa have leapfrogged and abandoned land lines to where in the United States debates over usage while driving prevail. Currently there are cell phone subscribers per 100 inhabitants in the world.

Digital Divide Definition 10 years ago.

Widening gap in access to and usage of computers and internet across the US population and the exclusion from educational economic cultural political and social opportunity. In turn it left a sense of that if you didn't have access to computers and the Internet then you were missing out. The definition and the demographics of the Haves v. Have nots. The have nots are low income, single parents, African American, Native American, Hispanic, senior, little education, inner city, rural areas etc. There are also gaps charted in Internet usage within the developing world.

In order to establish the persistence of the divide Williams says we can look at the broadband usage by education. Broadband in the home of 74% of households headed by someone with a bachelor's degree and 17% with someone with no high school diploma. This is also something that is seen with ethnic background as well with African American and Hispanic households being underserved.

We saw there are many dimensions to digital inequality – She sites DiMaggio and Hargitaii (check spelling) work in indentifying five dimensions.

Technical means of access

Autonomy of access – Difference between work and home you can't do things on work computers that you can do at home.

Questions of Skill – Is there any training, ability to write programs

Questions of Support – Is there anyone to train you on usage

Questions of Purpose of Use – Difference between playing solitaire and doing things that require more skill. Writing programs playing games online.

Eight Different Answers to the Digital Divide.

Digital bridges – Home use is not the whole picture. Three general questions in surveys that had been dones asked questions along the lines of having computer usage at home, computer usage at work and computer usage elsewhere. This established dimensions within which computer s could be used. Schools, Laundromats, Museums (Science Museums), Copy shops, Churches, Libraries, Cyber Cafes, and multiple public sectors. School computing led the way to get people to computing, then work, then home. In 2003 it switched to School then home then work.

"Spacialized" the Digital Divide – 25% or higher poverty rates in Toledo Ohio. Census of public computing….and found 4 different sectors. Government – Schools and Libraries, Community – Churches and Private Schools, Unions operating computer labs. Hospitals, Day Care centers.

Government has the same number of sites in poor communities. The digital divide follows a poverty map. Commercial University sites favor wealthier communities. Community sites are not as common in middle class communities because it's suggested that home usage is more common. Similar results were found in the survey that was done at the University of Illinois.

Computers in Libraries – how libraries have taken up computers usage. How many computers do you have in any given branch? Main libraries have more computers while branch libraries have fewer systems available. As digital divides go up the access to computers in lower income neighborhoods have gone down. In Toledo when they found the discrepancy in library access in branch resources they were told by directors that they had to fight for resources since they did not share the same circulation numbers as main branches. Patrons come to use materials, but not necessarily to circulate materials so it made for a struggle. Places like the Gates foundation was using Census Tract Data while the Toledo study used block data. It's harder than you think to get into areas where the services are needed.

When people tackle the digital divide.

It is social capital not financial capitol that provided the basic fuel. One example was an 80 year old minister who never touched a computer but sold raffle tickets and helped bring computers to a center. The center operated for 15 years and started in a church basement. The center persisted in spite of issues with grants and funding.

Recruiting other social networks for help. What the people became interested in producing was cyberpower…what can I do to develop masterful uses of this technology to help myself and further myself. Above and beyond job and basic skills. Using technology to do what I want it to do.

Manchester Study: What about people who are just living their lives. People minding their business and what impact they have. Tenants groups who are protesting to make neighborhood safer. History groups who published books. Community centers for immigrant families. All groups used technology to get their message across. Types of technology

Downloaders (ie Tenants group) – Use computers to make email contact and making documents.

Uploaders (historian) – put content on the web. Putting booklets online and video.

Cyberorganizers (working with teens/seniors) – putting content on the web and help others to do so.

Social capital led the way in Manchester and much help came from friends, family, and volunteers.

Community centers ended up being a digital bridge and didn't necessarily start out to make a dent in the digital divide.

38:00

Do communities own their own cyber-representation in general?

URLS geared towards ethnic groups were mapped according to domain registration where the addresses are local to where the information producers are lived. The URLs are owned and controlled by the community.

Technologies opportunities program (1994-2005) – could only get money if being used to solve local problems, they had to be partnerships. Projects that mobilized local leadership and trained peer leadership became more successful.

Current grant work dealing with broadband.

BTOP spend 7.2 Billion

Technology use is the goal. Want sustained use of technology, wiring community institution and public computing. Public comments on who is in the dialogue and who isn't. Locally the U of I and two cities are engaged in this direction. Being funded in an era of Government 2.0. Lets have an accelerated learning curve for projects. Top down solutions from the community. Everyone has to be on it in order to be valuable. Around 44:00 in video.

Community informatics is fighting to be heard and looking for a voice in journals. Library computers have gotten to be more in demands. Chicago public libraries put in a policy that if you have fines then you can't use the public computers. The result is a drop in the number of fines that are overdue. Libraries are feeling a budget crunch.

Appendix B

September 17 Digital Divide

Mike Smelzer Director of CITES

UC2B Lecture

Urbana Champaign Big Broadband Proposal

History and parts of the proposal for UC2B

Mike Smelzer

Urbana Champaign Big Broadband is an intergovernmental consortium bringing the city of Champaign, Urbana, and the University of Illinois together. This is important because when we are looking at putting fiber into the ground you are going into the public right of way and those are the entities that control the right of ways. The consortium is patterned after METCAD which is what handles 911 emergency calls. This organizational approach allows and invites other communities/organizations like Savoy and Champaign County to get involved.

According to Mike there is a policy board that will ultimately run the consortium. The mayors of Champaign/Urbana get to appoint two people and the Chancellor of the University of Illinois gets to appoint two people. When we applied for the grant we had to at least give the illusion to the federal government that we had a plan. Abdul, Kate, and I crafted a plan but that plan is subject to change because it's going to be the consortium policy board that will carry out the grant, implement the system, and does these things. So a lot of what I tell you about today about the future could change. I hope to have some input into that future. It's not going to be Mikes crazy ideas of how to run the Internet it will be a group of responsible adults who will figure this out.

Big broadband or better broadband is not necessarily a new idea in Champaign-Urbana. Back in the 90's the chamber of commerce had an organization called CCNET. For those of you who have been around here a long time there is a guy called Larry Smarr who started NCSA and he got involved in the community and tried to get the community excited about this new thing called the Internet and he got the community excited he was a pretty good evangelist. CCNET went out and purchased the very first cable modems that ever existed in Champaign-Urbana and worked with the cable company at the time, I believe it was Time Warner, and we had cable modems. They were in the school districts, they were in some local businesses, my ISP had one and that is how we got our internet for a while. We learned a lot of interesting things about security through that process. Things that we would just laugh at today at one point when we had Urbana schools hooked up the News-Gazette was a participant and Busey Bank was a participant

I got a phone call one day from the a reporter at the News-Gazette who told him that they were on a CCNET connection and they could see the contents of the superintendent of schools hard drive.

The superintendent had file sharing turned on his Mac and the NG had Macs and apple talks seems to work right through the network and you may want to have him either turn off file sharing or password protect his hard drive. While you are at it you may want to talk to the people at Busey Bank their server says payroll and another server says HR. It was like a big party line where people could see each others stuff. This was before firewalls and many of the best practices that we have today so that was interesting. AT&T (then Ameritech) came into town with and with an ISDN rollout which CCNET helped partner and back then getting a 256K connection was considered to be a big deal. People paid up to two to three hundred dollars a month for the service and it was both very expensive and slow by today's standards.

In the mid 1990's the University of Illinois realized that 2/3 to ¾ of students don't live in university owned housing. Students had Internet connections in the residence halls but many apartment buildings did not have anything outside of dial up connections. There were no cable modems or DSL. The university looked for a company that could connect apartment buildings and private dorms and McLeod USA came and installed a fiber optic network around the campus in the Champaign area. This network connected Eight to Ten Thousand students.

In 1997 Smelzer went to the Champaign City Council as part of CCNET and applied for an open position on the council in order to get their time and attention to talk about fiber. During this course he realized that neither he nor the city had a plan for fiber. He knew that it needed to be done but didn't know how to go about getting it. At the time there were no maps, no charts. Then Smelzer went to work for McLeod since they were involved in fiber installations at the time.

Champaign/Urbana wanted to have similar franchises with the cable company and the commission is the entity that negotiates the franchise.

Moving forward 12 years the CU Cable Commission created a subcommittee to study broadband. Right around that same time President Obama was elected, there was talk about stimulus funding, and things got a lot more focused in terms of those discussions. Smelzer says he attended a conference a year and a half ago where the term "Big Broadband" was introduced to him. At the conference he was exposed to the idea of how a plan can be developed to bring FTTH (Fiber to the Home) to every US Household which would run into billions of dollars. He came home and asked what if the University, Urbana, and Champaign got together and decided to do this for Champaign-Urbana. When the BAC started he showed up and introduced himself as being from the University

and that he had a plan to help which was met with amusement. But when the federal stimulus came out this suddenly became a real possibility that we could actually do something locally and turn it into what he had thought about for a long time which is having a fiber network to the community.

GLIS sponsored a broadband forum for the community. Around 30 to 40 people turned out and the microphone was open for comments. He took several pages of notes detailing what people shared in terms of what they wanted for the community. Recurring themes – it's got to be cheap its got to be like water, it's got to be available everywhere. When the American Recovery Reinvestment Act passed in February 2009 they hooked up with a consultant ahead of time. The day she (Joanne Holvus) was here was when the stimulus passed. The bill had 7.2 Billion dollars set aside to do broadband. We would have to come up with a 20 percent local match. Smelzer said that Illinois may get around 200 million from the total pie. Champaign competed with Chicago, Aurora, Rockford, and other places that have projects. Illinois took the action of putting 50 million dollars into a capital funding budget to get matching dollars for the stimulus. The state program committed 3.5 million which combined with a local match approximates around 7.2 million.

The grant proposal process

There is a stage where the federal govt goes to the governor and asks him what projects he likes. Slide of numbers submitted to NTIA

Infrastructure Bucket :

Public Computing Centers:

Sustainable Broadband Adoption Bucket:

Grant applications covered all three areas.

We asked the federal government for 38.3 million in funding.

For every dollar that is being put in locally there is 7 dollars coming from the state and federal government. It should have a stimulating effect on the community.

Building 7 fiber rings throughout Champaign/Urbana and all of the rings should run through the University. Anchor institutions or Critical Institutions are established that will be connected to one another. Schools, libraries, park district, etc.

We appealed to their (Urbana/Champaign) operational needs as opposed to altruistic needs. Both the Sanitary district and the MTD joined the efforts. The sanitary district is using T1 lines to coordinate their own data needs and it's not as effective as they want it to be. The MTD is also coming out with newly designed bus shelters which will offer

wireless access. Interactive features will tell patrons when the next bus will be there. Patrons can use an I-phone or a laptop while waiting for a bus. The MTD also wants to put security cameras in the bus stations to give people an extra feeling of security. The MTD would like to extend these measures to outside of the campus to other parts of the community as well. The fiber rings will enable interactive scheduling information, wireless on and off campus, as well as security cameras.

Fiber rings provide the backbone for the second part of the infrastructure project which is doing FTTH in 11 different census blocks. Long term the rings provide the opportunity for the ability to bring FTTH throughout Champaign and Urbana. All of the homes in the census blocks have less than 41% broadband access which met the qualification for being underserved. The door to door survey conducted established that these areas are underserved. The vice chancellor for public engagement agreed to fund internet for low income homes for five years to keep rates low and make it available. CITES will run the backbone for a while

This will be an open network everyone's data has to be treated equally. You can't slow down YouTube or block material as long as it's legal. It will also support different providers. Dark blue lines fiber conduits, light yellow areas are the census blocks; it's designed for future growth. The rings will also feed the supercomputing center and research park. This will modernize the infrastructure of the University. University offices are rented throughout the community and it will enable people to have fiber. The airport is also a university entity. The airport will also get connectivity.

Fiber is the only technology that is future proof. Once it's in the ground it's good for another 40 to 50 years. The cities own the right of way and an asset that is already being used. Future generations will benefit.

The second part of the grant will benefit public computing centers. Around 35 or 36 places would benefit from this. This can change as organizations come into and out of business. He shows a rough list of the centers where stuff will happen. Places where media will be created and uploaded as well. It's a work in progress.

The third part of the grant is sustainable adoption. For example if a household is provided with FTTH but there is no computer or motivation to use the technology then the efforts are null. As Mike puts it "Truly if I put a fiber optic connection in your front yard and you don't have a computer and you don't know what to do with a computer then I haven't done you any favors. If I provide you with some training, perhaps a computer to use that with, or some device that is a lot more useful. There is educational enhancement available there, there is job enhancement available." There is around 3 million being asked for to encourage adoption in practices. There needs to be more than just the

infrastructure made available there needs to be public computing centers and training to encourage people to adopt the technology as it's made available.

In Illinois the Champaign/Urbana and Chicago communities were the only ones that covered all three parts of the grant. Other proposals just proposed putting fiber in the ground.

Mike does a breakdown of the budget. There is money that goes for employment of people. This is still round one of the application process. The local telephone and cable companies can challenge the eligibility of the census blocks. Find out in November if they get the money and the city councils will then have to vote to accept the money. There are study sessions which will address these things.

For people who live in the yellow zones who are interested in getting FTTH Mike says both cities are interested in expanding this out and, in time, ways will be explored to bring this about. Another concerned expressed to him is in regards to gentrification. After all if FTTH is brought into low income areas then it might raise the prices of homes in the area. Are people with money going to force poor people out to get access to money….he says he doesn't think it will happen because the whole city will want to extend fiber into all of the areas. What makes that a good question is that it's implied that fiber is a great thing to have. "Let's just put fiber everywhere and make people happy". Urbana is wanting a city utility but Champaign is not as open.

In the Q & A Session Mike shared that the legislation requires the Department of Commerce to publish success stories to create blueprints for other areas and communities to model themselves on. Part of the appeal of the UC2B proposal can come from being located in a University town. Papers will be written and published about the process with lectures and symposiums. Other people can learn how to do it and how they will benefit from having this be done in their communities. The information sharing aspect of the university is what he sees as a strength of the proposal. The main reason why the consortium got the applications in by August 20th was because they had been talking and thinking about this process even before the stimulus bill passed.

There will be two more rounds of funding.

Appendix C

September 24, 2009 Digital Divide Lecture – Third lecture in the series.

Presenters: Safiya Noble, Mary Alice Wu, and Dawn Owens-Nicholson

Searching for Data

Finding the data to support a digital divide and developing policies for change…

Safiya Noble – PhD candidate in GLIS

Community Informatics

Internet Usage Survey in Champaign/Urbana

"Doing good research is at the heart of making a difference" – Safiya Noble

Looking at Census Blocks and Tracts to narrow down what qualifies as Low Income

History of technology and innovation at the University of Illinois such as PLATO and MOSAIC. Early adopters and developers of technology have roots in the Champaign/Urbana area.

Mike Smeltzer has worked towards

Noble developed CU Open Access website

Get information about stimulus bill

Get information about efforts

Series of public forums held at U of I

Engagement and grass roots community.

Questions like " do you have a non-mobile phone" v. "Do you have a cell phone"

Take technical questions and transfer them into user friendly format.

Goal of the survey was to develop a successful proposal for the government, minority business representation. She found getting feedback from people to be helpful and she said that people understood the impact that this would do. You get a lot of information that go above and beyond responses. Volunteers who gathered the information underwent extensive training and there was around 40 people went door to door. Senior Citizens who used to have free Prairienet felt cut off.

Internet Usage Survey has led to new ways to analyze and map the data. Social Network Analysis of the Data. Data can be used to learn more about research and the community. As of the point of the lecture the Data that was gathered was utilized for the purpose of developing and designing the proposal for the stimulus funds.

Mary Alice Wu

Steps we had to go through

She received a phone call from Kate Williams asking her to draw a sample. Met with Safiya and a couple of people. Sat down with individuals from the cities of Champaign and Urbana to see if census blocks met the criteria for the Grand Proposal. Most of the data that was available at that point was fairly old data from census records starting in 2000 and dating to 2005. Considering how technology is continually changing the information is pretty old. You can't rely on older statistics to determine qualifications. There was a short time frame within which to gather data. Called on July 15th and a deadline, to have the data gathered and analyzes is August 4th.

Criteria for Grant Proposal

40% or more of people who do not have access to broadband in the regions where they wanted to build fiber rings.

The process of how they did the survey and gathered the information.

Map that they proposed they survey. Yellow , Red, Pink, and Blue. The data was property addresses to go out and survey people.

2 approaches

The Census approach would have entailed going to every single household which comprised over 19000 households.

Went for a random sample within the zones – there was a week and half to get the surveys ready. Getting the approval from the supervisor, and the IRB approval from the University of Illinois. Traditionally IRB approval takes about a month and the U of I gave the approval within a week. Fortunately for the researchers the U of I has been committed to the project. People within the Illinois Informatics Institute who have done a lot of work within the IRB were able to pull some streams.

According to Noble since the questions on the survey were not attitudinal in nature – in other words people weren't asked questions regarding their feelings about Internet usage they were able to obtain an exemption from the IRB. On the other hand, if they had asked questions to do with emotions or feelings chances are this survey would not have been approved by the University of Illinois.

Create the sample from the population – draw up a sample based on the property addresses.

Then develop the questionnaire and do a face to face interview.

The survey structure had to be friendly and conversational. People had to be trained (volunteers) to administer the survey. Training was done to insure that the questions were asked in the same way. Cover letters and geographic clusters. The cover letter has a different category of what happened at the address. IE not home-doesn't speak English-vacant houses. The cover letter kept the survey blind and helped to maintain confidentiality. The only place where the addresses appeared where on these cover letters – The cover letters also had unique ID numbers which were then written on the surveys itself. So a completed survey would not have a persons name or street address to maintain the confidentiality and the blind nature of the survey. Each cover letter contained details of individual visits and if there was a need to send anyone back to the residence for follow up. The two instances there was a return call was either if no one was home, or if there needed to be a Spanish speaking volunteer to go and collect survey data. Two of the 40 volunteers were Spanish speakers.

Cover Letter – Questionaire – 2000 Sample Points

The cities printed 4000 pages and spent time folding and preparing the surveys. Altogether there ended up being 104 packets. Consortiums of people from the Independent Media Center were able to assist with putting together the packets and putting together a map where they were walking in. Did a test sample of the survey in Downtown Champaign. The Cities of Champaign and Urbana sent mail to residents letting them know that there was research being done.

Three rules

Be Safe – don't go in anyone's house, walk in pairs, have your cell phone on hand.

Be Courteous – if the residents are rude or don't like you say thank you and walk away.

Be Accurate – Had to mark down exactly what the residents said and transfer the number from the cover sheet onto the survey.

Each household would be visited three times.

Survey information was gathered by around 30-40 volunteers working three different shifts over a period of 4 days. 9-11, 1-4, 5-7. Paired people up with at least one person over 18, one person with a cell phone and a male with a female. This was done with the understanding that doors would open up more to a male/female combination than to either two men or two women. Someone going out into the field for the first time was

paired with someone who had already been out…if possible. Had someone at the headquarters to man the phone to answer questions/give directions/etc. They kept track of the volunteers and the packets and she was proud to say that they never lost a packet or a volunteer.

Hit the 'yellow zones" north end Champaign. They went zone by zone

100 packets yellow zone

200 packets green zone

300 packets red zone

Hit people at different times during the day.

Volunteers without cars and who were under the age of 18 and pairing up people to compensate.

ATLAS is Dawn and I and two grad students (our little group in atlas)

Saturday was DO OR DIE time to collect data as fast as they could.

Preliminary numbers in getting representation – Data entry was going on at the same time as data collection. Saturday morning was where the yellow zone was focused on.

Overall they got 456 responses in 4 days which is 'an incredible amount' considering the limited time.

All of the data was 'double entered' and Dawn did the analysis. 2000 green cover sheets double entered. Put the cover sheets and survey in numeric order.

Dawn Owens Nicholson – Statistician

She had concerns about the do-ability of the project and was reluctant to take part. She was persuaded to do this work.

What households have Broadband Internet Access. 50:59 into clip.

The best option at the time was to do Face to Face surveys.

Why was that was the best choice

F2F go to each household and get the answer then and there, highest response rates,

Other options (and why they won't work)

Telephone Surveys – Could have called and screened households. But it would have been challenging given the time frame to find households within a specific demographic cluster. According to Owens-Nicholson 56 percent of potential respondents had a landline phones. Random digit dialing would result in calls being made throughout the survey.

Mail Survey – Low response rates which is around 17% which is unacceptable for data. The data takes a long time to collect and doesn't account for literacy and language issues.

Internet Survey – which misses the point.

Churches and Schools – Convenient Sample makes it hard to do a response rate, and is hard to calculate scientifically. Best done for a pilot study but not good for what she called 'real' research.

She said that a random sample was the only way to generalize to a population.

30% of respondents did not have Internet.

List of all addresses in census blocks

Block groups.

Census group split up into county subdivisions – census track – block group – block. Geographic units were required to meet the policy needs. Data gathered needs to match or closely match census records.

38 block groups from cities (all addresses) – which included vacant lots, cemeteries, duplicate addresses etc.

Use County property code to extract residential addresses and removed duplicates and bad data. What remained afterwords was 16072 residents in the area.

Sample Size – What margin of error acceptable +/- 3

950 completed surveys to make the margin of error. Doubled the number to get the sample.

12 percent of the addresses within the block group.

Stratified Random Sample

Actual Statitics

457 Completed Interviews +/- 4.4 percent

31.6% Response Rate

Some Eligible Households they did not get to.

83% Cooperation Rate – people who agreed to complete survey

40% Contact Rate

Would have been able to have reached the goal if they had more time. While the margin of error is acceptable it could have been better.

Results

61% of people have Broadband Access have at their home

Core 8 block group area had 38% and three stand alone areas. 38 block groups chosen on household income.

Better job at repeated attempts.

City could have a survey included in the introductory letter which could have added to the data collection.

Good job done by the volunteers some of whom had never interviewed. Sending people in pairs helped keep the survey integrity intact.

The city has the entire proposal is available online – the methodology should be outlined.

Abdul-

People are making the choice to use discretionary income. The fact that some individuals in certain income groups are making the choice to get computers/broadband shows a demand/need for the technology.

Abdul – The big companies have the right to challenge and say that they have the real data and we want you to reject your proposal.

What is the core area that is identified as being underserved?

Policy and power private sector with business models.

Poor areas and black communities were excluded by AT&T when they rolled out DSL. The cable commission in Champaign/Urbana prevented the cable company from 'redlining" poorer neighborhoods.

Noble: The current infrastructure was influenced by private companies who were allowed to develop it. The Obama administration is now dedicating public funds to address discrepancy. 1:26:00

Abdul: Railroads, Electricity, Interstates, developed by the military with public money, the business model squeezed people while other countries zoomed ahead. The US economy is slow by comparison to other countries. We want literacy to be in the economy and to communicate with our families. Virtual Malls or a New Commons for the greatest renaissance in democracy and can determine which way will this country will go. What are the people going to do with the technology when they get it?

Appendix D

Digital Divide October 1, 2009

Guest Speaker: Sascha Meinrath - Research Director of the Wireless Future Program at the New America Foundation

Associated URL: http://wirelessfuture.newamerica.net/home

Topic: CUWin Foundation

In introducing this lecture Abdul asked everyone how many people present and noted that everyone present had an awareness of wireless technology just through the concept of having a cell phone.

The person who introduced Sascha said that he was a founding member of the UCIMC Urbana – Champaign Independent Media Center and he was, at the time, a doctoral student at the University of Illinois in Communication.

Meinrath

I'm a UIUC alum and a continuing grad student so I feel your pain. I've taken a lot of classes with professors in this department.

What the New America Foundation is and what open technology initiative is. New America foundation is a think tank in Washington DC just like your classic what you would think of a think tank. We sit around and ponder life's persistent questions and come up with a lot of research and analysis to inform decision making. So my day to day job revolves around educating congressional staff, FCC, NTIA folks, and people at the white house on issues related to telecommunication and technology. As open technology issue might lead you to believe it is true we tend to prioritize the notion that open technologies have a lot of benefits that are often overlooked. This is the crux of what I'm going to be talking about today in terms of digital divide, openness versus the enclosures we are seeing that are often being done very subtlety in ways that we might not ordinarily perceive. But it is, in fact a remarkable battle that is being played out right now and today in Washington DC that will have ramifications for generations to come.

Before looking forward Meinrath opts to look back on how he ended up in Washington DC expecially since he was working day in and day out in Urbana. That trajectory took off back in the late 1990's when I was still in psychology and we were doing a bunch of work on racial climate in the Champaign public schools. If you ever want to see something that is incredibly fascinating both the institutionalized racism in this community as well as the massive amount of blowback that we got just for doing research that asked people what their experiences were in the local schools around issues

that touched upon race. It was the only work that I have done where I got death threats and things like that for the research I was doing. What we found in collecting this information and this data was we had all of this amazing knowledge about what was happening in the schools. We had first-hand accounts, narratives, and stories and the local media wouldn't touch it. The News-Gazettes of the world were like 'nope we are not talking about that'. It was just completely whitewashed.

So the thinking was what was needed was a media production unit. A lot of people in the community saw the need and from this need and activism led to the creation of the Urbana-Champaign Independent Media Center in 2000. I was a very small part of a very large group of folks. But he dealt with a lot of the money and business planning aspects of this. He described passing the hat and collecting 61 dollars of which 50 dollars was used to incorporate and 11 dollars was used to open the first bank account for UCIMC. He said "that sort of pragmatic radical activism is kind of the hallmark of what makes the Independent Media Center here really different from a lot of the other IMC's that have been created around the world." It's also something that I have brought with me throughout a lot of the work that I do. Radical, yet pragmatic.

When I think about the next steps when we were creating this independent media center we quickly realized now we got all of this media production capabilities but we have no way to distribute this information. So I gathered together a whole bunch of geeks in my living room. I used to joke for a couple of years my living room looked like a borge ship in that there was just equipment and things strewn about everywhere and it just totally took over. I thought it was going to be a summer project that we were going to build a metra scale mesh wireless network. A wireless network that would span the champaign urbana area. I thought how hard can this be. Now it's like eight or nine years later and the technologies have definitely improved dramatically and a lot of the work that we pioneered here in our back yard in Urbana has now been integrated into a number of different projects around the globe. So we now have metra scale mesh networks that do provide free connectivity for everyone.

Whats interesting about this is that when you talk to the news when you talk to the media when you talk to the average American you say "look couldn't we have free connectivity? It wouldn't cost more than a couple of bucks for developing this kind of thing" everyone says no no it's not possible, its very complicated, it's very technically advanced technology, you just can't leave to communities to build on their own. Look at Vienna Austria or Berlin or Gratz (sp) or the Jersland Network in Denmark, which covers 2500 square kilometers. Or quifynet in Spain. These are long time half a decade or more large scale, metra scale, mesh wireless networks that provide free services. No one wants us to be talking about that because in fact there are a lot more effective and efficient delivery and faster speeds for cheaper than all of your cellular technologies and etcetera that we have deployed today.

It's not a replacement for those but it is certainly in my mind something we should think about. Why do we have this scarcity of capacity, why do we have this digital divide, in the United States. That is so great In a country that should have been pioneering these kinds of things. So when I think about CUWin the Champaign Urbana Wireless Network what we were developing were these really incredibly interesting technologies and by 2003/2004 I realized that if we are not on board on the policy side of things then we are nowhere. Because we have developed something that is really incredible that, for whatever reason, could not be deployed. It was fairly soon after that we had a huge battle at the state level where the AT&Ts of the world starting passing laws that made it illegal for municipalities to deploy their own telecommunications services. This we regardless of whether or not anyone was providing those services in the community to begin with. So you can imagine it became illegal for cities to deploy services for their own residents even if no one else was providing those services.

The epitome of this in my mind is when we were doing hurricane Katrina response. What we found is all of the telecommunications systems throughout the whole NOLA area were completely wiped out. We wanted to go in and we wanted to build community wireless networks over New Orleans. We actually did end up building this and then afterwards we wanted to turn this over to the city to run. We built it, we donated it, and it was envisioned that it would be free for everyone. But there is a state law in Louisiana that says you cannot provide services that are faster than a certain speed. So before we could turn over this network that we had already built that was already fully operational that was already delivering free services that were really fast we actually had to degrade the service to below 256K or 128K so the city could run it.

This plays out around the country. One of the first things that telecoms do when a community decides it's going to deploy their own telecommunications system is they first drop the price of their services often by as much as 40 percent. The second thing they do is take it to court. They take it to court not because they will win, they will lose more often than that. It's because they can then stretch out the time frame of deploying these networks by years. So it's a tactic that they use and this also plays a role in the digital divide.

Back in 2004 if you have ever done any work at the FCC you know that there are these dockets and they always have two numbers up front and two or three numbers on the end. The first two numbers are the year that the docket began. Back in 2004 and there was this really interesting proceeding for us community wireless folks 04-186 also called the whitespace proceeding. White space as in the snow on your television, as in a channel that is unused for television, what's interesting about this is if you were to take this board over here and draw circles on it and that couldn't overlap then you would find all these spaces between the circles. Likewise if you have a television channel in Urbana that same frequency can't be used in Champaign and usually can't be used in Indianapolis, or

in Chicago, or in St. Louis. So now you got all of these circles that can't overlap on the same frequency and so you end up separating them by a couple of different frequencies. This is why if you have ever taken an old television and gone on the over the air things like channel 3 channel 8 channel 12 channel 14 channel channel 22 – those channels are different frequencies and everything in-between is blank. So we were thinking like wow technology has come a long way what we should do is re-use these frequencies for broadband connectivity. The same reason why they are so valuable to television stations they get into buildings they provide long distance coverage would make them extremely beneficial for community networking.

Five years later in Washington DC we are still fighting the 04-186 battle and the reason why is think about a television station, think about a radio station. What is their most valuable asset? It's their frequency and why is that frequency or license incredibly valuable? Because there are so few of them. So what happens when somebody comes along and says there is this massive artificial scarcity, this is not a scarce resource, we can make uses of it far more efficiently, it would have huge benefits to the entire populace of the United States , but your number one asset is going to be devalued by some amount. So they fight it tooth and nail and that is exactly the battles we are facing in the United States. There are at any given point in time about 92 to 93 percent of the airwaves of the United States that are unused.

So think about any other resource that would be 9/10ths blank and you realize how ineffective our spectrum license policies are. There is a reason for this all of our spectrum licensure is based on the absolute bleeding edge technologies of the 1930's. So when people like me come to DC we are like oh lets build all these cool technologies and we understand what these radios are capable of doing today because we have these things called computers and other amazing new dev ices. We say look we should really throw out what has been the norm for decades on end and do something that is way more efficient because it benefits us all. But now you got all of these sunk costs from the telcom companies, you got all these folks with enormous lobbying power. It is normal for me to be at the FCC and I will be meeting two of my colleagues on one side of the table and two dozen people from our opponents are on the other side of the table. That is the norm for how large the lobbying power of these organizations are. So for me at least in my mind there is no reason a digital divide should exist in the United States. It's entirely artificial.

So it begs the question of what is going on. We provided a baseline for education for food public safety and common defense all these other commons where it's good to have an educated populace, its good to have a populace that is safe its good to have a populace that isn't facing famine. Connectivity communications article 19 of the international declaration of human rights says communication is a human right. It's a fundamental to a civil society and everyone deserves it. So I look at that and I look at where we are today

and I say why does this digital divide persist and this is one of the fundamental battles we are fighting right now in Washington DC. How do we shift policies in ways that over the next decade or generation will eliminate the digital divide? Because we actually know how to do this the digital divide is an artificial scarcity that must be actively maintained or it will go away.

So what I would posit is this problem arises from a broken business model. Fundamentally and I will touch on different exemplars of this. This business model, this economic model, is one that prioritizes the co modification of scarcity over the provision of capacity. So let me break this down. The idea is its far better to have fewer radio stations worth a lot than to have many radio stations worth a little. Thus the huge battle over low power FM Radio. It's far better to have everyone paying more and more and more money for your broadband connectivity for these tiny little amounts because you can extract more money from each of your pocketbooks than it would be to add capacity to the whole network and maybe have to charge a little less. So what I would like to look at in terms of 'real world' examples and I think the 04-186 is one of those key elements where it's so utterly ridiculous the Whitespace proceeding.

What brought this about? What brought us to this head that we are facing right now today? I do want to point out the battles that we are fighting right now today will have ramifications for generations to come and are the most important battles we have faced since the 1960's in two generations at the FCC. The 1968 Carterfone decision that allowed us to have what are called foreign attachments on a telephone system. That decision to open up our telephone system is what allowed for answering machines to be legal, it's what allowed you to have a phone that wasn't owned or leased from AT&T. Before that you couldn't hard wire your own phone an expert had to come to your house to hardwire your phone and you had to pay a monthly fee of a few bucks forever to AT&T for the privilege of having that phone. You couldn't buy a phone anywhere so answering machines became legal but, more importantly, this crazy idea of the computer modem became possible and became legal and that is what brought us the Internet. So when wirelines we have four decade of precedence that says we can attach anything device to a telephone network as long as it does not harm the network itself. To give you an example of a predecessor of the 1968 decision, how egregious these battles are, in the 50's (1956) there was a device called a 'hush a phone' and the hush-a-phone was like a plastic little cup that you would clip onto the phone so you can talk into it and it would be quieter and the bell system took it to court saying this could not be allowed, that this little device could somehow destroy the entire telephone network. When I look at todays battles and the claims that are being made on behalf of the telecomm companies I see exactly that level of ridiculousness, just the technology might be a little more complicated. It's not as immediately apparent but it's just as crazy.

The perfect storm that we are facing kind of came out of the amalgam of three different things. Number one is we had this technical innovation computers all of a sudden became cheap, the processing became powerful, everything got miniaturized and all of a sudden everyone in this room now that is more powerful than anything that existing. Like more powerful than the Apollo project in your pocket today. This spurred the second this which is a demand for new media and services and applications has gone through the roof. We NEED things today that we had no idea even existed five years ago. What would we do without email? I remember back in college in the early 90's and I was just getting on to email and it was like an open question…I don't know if this thing is going to really catch on, a lot of people weren't really using it. It's just sort of there but not really ubiquitous. Today I don't think any of us would really want to contemplate our lives without such a service. The third thing is that there has been seismic leadership shifts. These first two have been around now for about a decade, unfortunately during that same decade we had an administration that was not really gung ho to upset the apple cart. We spent that decade banging on the doors trying to get in and explaining you must deal with these things. If you look at my blog you will see a lot of things like software defined cognitive radio technology from half a decade ago, the FCC is ignoring this problem and it's going to be really bad because they will have to address it. So those three things kind of led to this critical juncture in telecommunications history where what we decide and it really comes down to what we decide over the next year, two years, is probably going to reverberate for the rest of your lives.

Which means if you are kind of not involved in this you will be writing about how much your lives suck as opposed to perhaps making them better. It will be like decisions made that quickly. So the 04-186 proceeding which I began work on a half decade ago scares the bejesus out of telecomm incumbents. You can imagine why right? This notion of opportunistic reuse, this notion of like if you are not using that ninety percent of the spectrum that is out there we should be allowed to reuse that. It completely decimates a business model that commodifies scarcity and that pretty much cuts all across telecommunications and that inflation of pricing for a very small bits of capacity is, what has led, in many way to this digital divide that we face here in the states. There are certain things that are super easy to change. Super easy in that a quick shift in policy would make the change. Super difficult in terms of the political optics of making that change. One of my favorites is e-rate. We the taxpayers of the United States pay billions of dollars for e-rates which is a great idea. It subsidizes connectivity to schools and hospitals and municipalities libraries and etcetera. What this means is you have broadband running to most if not all schools in the United States. So now we paid for these lines running to all of these schools in the United States and a lot of these schools are located in communities that have no connectivity outside of the schools. So when is this connectivity being used? During the school day. When is it not being used? After school. When do the communities around those schools want to have connectivity?

After school. We have this huge wealth of capacity over in the school, communities that want access to it, so why aren't we using it. The reason is because erate has a little rider in there that says you can't provide services that may compete with private industry. So we are already paying for that line, be aware of what we have already paid for that line. We have communities in need that could use that line that would cost us nothing because we have already paid for it and that we are statutorily prevented from using. This is a program that has been really successful in driving capacity to like the ends of the earth in the United States. I look at that and I'm like that is really egregious.

What do you do? You eliminate that one little rider and say that erate can be used for what these hospitals, these schools, and whatever these municipalities want period. That changes everything. This is why things like the BTOP program scare the hell out of the incumbents. Because the notion that, all of a sudden, schools , libraries, hospitals and municipalities, are getting together with community organizations and activists, and people who don't have capacity and sharing networks. One of the priorities of BTOP is that you create shared capacity networks and collaborations across this statutorily defined divide breaks this business model based on artificial scarcity. The 04-186 is exactly kind of like that sharing across the spectrum.

Middle mile another one of these egregious things. You guys have probably discussed in mile networks I'm sure. The last mile networks that bring it from that point into the community and we probably already know about the internet backbone that connects large scale huge capacity pipes around the globe. In between those two spaces is what I call the middle mile. It's that connection point that gets you to that backbone from that end mile network. It's usually somewhere between a couple of miles and fifty to a hundred miles in distance.

I can talk authoritatively on this situation in Illinois because back in 2005/2006 I worked on a project called commons (double check). Cooperative Measurement and Modeling of Open network systems out of the San Diego supercomputing center it was part of a group called CAIDA We like acronyms as you can probably tell the cooperative association for internet data analysis. What we posited is we could eliminate part of this artificial scarcity by using resources through educational networks. In this case a group called National Lamda Rail to bring large capacity to end mile networks. In return for that capacity cheap connectivity those end mile networks would provide us with data for researchers to improve the internet. It was a brilliant quid pro quo. Researchers have capacity, you got data, we will get them all together, you got a reeses pieces cup, and everyones happy. This should have happened we had everything aligned so why didn't it?

Here is what drove this. This is 2006 numbers. A single megabyte of metric capacity lets just call it the unit. The unit costs ten dollars these are real numbers in San

Francisco. 80 to 90 dollars in Chicago. Three hundred twenty dollars in Urbana and in Greenup Illinois a small farm town 40-50 miles away 1300 dollars. From 10 dollars to 1300 dollars for the same thing and the claim the telcos make is that it costs us more to bring connectivity to rural areas than it does in the big cities. So I think like what would be a parallel. Lets think about like EXXON. That's a BIG company and they got to bring oil into our ports and it costs a hell of a lot less to bring oil to the ports on the coasts than it does to bring it to Greenup Illinois. But we don't have a 13000 percent markup in gas prices per gallon. So why does that discrepancy exist between gasoline prices there is some variation no doubt about it and broadband.

The artificial scarcity here is information. Classic economic you have probably seen the supply demand curve the big x and everyone points to this and says look the brilliance of economics is that supply and demand will even itself out at the optimal price. What no one wants to tell you is a fundamental assumption on that equilibrium and that is perfect information. It's the notion that people who are supplying this know what the demand is and that people who are demanding it know what the supply is. So what do we have in gasoline. We have these big signs outside of every gas station that says here is the price for gas. What don't we have in broadband connectivity I bet that you don't know on either side of the street what your neighbors pay for their broadband connectivity. I'll bet that if you were to ask you would find out that they are paying something different than you are. You have no information and this is a battle that is waging. Why is it that the telco companies again are so freaked out over this notice of funding ability from BTOP. From RUS. One of the things in there is we are going to do broadband mapping, we are going to collect pricing information, and who is delivering services where.

It's crazy you got all of these consumers who are like I want broadband but I don't know who supplies it or what the pricing is in my community and the providers of that service are saying we don't want you to know what the pricing is or who is supplying it. This is what they have to argue at the highest levels in the United States. That's crazy. So consumers don't have any information about what the price is, what the speeds really are, and we got this advertised speed and we know that no one ever gets the advertised speed. Off com with a group called sams knows created a massive study that found that you never get the advertised speed in Britain but what you do get Is about half that. I would love a bill that just said you know what people can pay up to 39.95 a month for their broadband capacity based on what they actually get. That would be fair in my mind. Of course the telcos would freak out. Because what they want to do is commoditize that scarcity as much as humanly possible and they can. Because the FTC has been asleep at the wheel. We have absolutely no truth in advertising here and absolutely no accountability for that.

So what did we do. I'm now back to pragmatic radicalism. Coming out of this CAITA project which ended up falling apart because we could get from everywhere in the globe

to Chicago and we had an end mile network in Urbana and all we had to do was connect these two networks and we have something in Illinois called the Illinois Century Network which goes to 8000 plus locations all around the state that we could use and that has the capacity to use for transit. But there is a little rider on the Ilinois Century Network that says you shall not compete to offer services that might otherwise be provided by market forces. So even though the Illinois Century Network was going to give it to us, if not for free, for very low cost they couldn't. When we talked to and we were able to bring together this amalgam of various lengths but we had a 20 mile link that we couldn't bridge so we actually went and asked a number of providers "how much would it cost to get us that last 20 miles" and the answer for a 1 GB connection was $20,000 a month. That twenty miles ends up costing more than getting every other place on earth combined and you can only do that because there is this middle mile that is actually monopolized in the United States. You have a couple of providers that have monopoly control over this middle mile and you have no check n balance on that. In 2005 we had a supreme court decision "Brand X" case that basically allowed the FCC to say that you don't have to share capacity it takes decades of common carriage and chucks it out the window. So now all of a sudden we are subsidizing these egregious middle mile rates and this is a huge battle right now in DC. It's called special access and you talk to anyone who runs any large scale network and they will tell you the horror stories because they all have them about the costs of that. This is why it's totally industry standard that you have to sing a non disclosure agreement in order to get information about what you would have to pay for a special access connection.

So scared are they that some information might leak out and you might be able to make an informed decision that they make you sign contracts to prevent you from talking about it. These are problems that must be addressed It's so far out of whack and you can look to other countries such as Japan. Japan was way behind us in terms of broadband connectivity ten years ago and is now way in front of us. One of the ways in which they catapulted themselves ahead of us is to start having common carriage, structural separation, this notion that you can't control the end to end aspects of the whole network which is what the cable companies here in the United States want to do. The triple play notion where you only pay 100 dollars a month and you get television, internet, and phone. What a great deal that is. Except in Japan you are paying less than half of that and getting far better services. They do that because one provider the cable company can't say you must also buy your phone and your internet when you get your cable. They can't bundle that together. So how does all of this play in all of your lives and this does directly impact all of you.

You are, every month, paying far more money than you need to with your cell phone plan. How many people in this room have a data plan on their cell phone. How many people are paying ten dollars or less for your services, how many are paying less than 50

a month, how many are paying over 100 a month. There is a price point between 50 to 100 dollars that you will not get out of. Go to places like India or China or developing world and it's between 10-20 a month. In India and in other places cell phone companies are required to share towers and you don't have to build two towers 50 feet away from each other because you have two different systems that don't interoperate. What does that do? It dramatically drops the cost of your operating expenses and it means that end users pay less for their services. In the United States we have decided that we can maximize profit by this 50 to 100 RPU and what this means is if you can't afford 50 to 100 dollars then you are left behind. And again it comes down to commoditizing the scarcity in the United States.

We've been working a lot with Senator Kerrys office on something called handset exclusivity another way in which you can commoditize scarcity. I talked about 1968 [Carterfone]. By allowing foreign attachments you have allowed all kinds of innovations in the last 40 years. In the wireless realm you would think my cell phone is a telephone maybe this should equate across the medium of transport. Through like some brilliant jujitsu moves telcos have managed to say that wireless telephones are not like wireline telephones. They shouldn't be equated and they should be treated differently. This only works with an increasing amount of ridiculous logic that they barely managed to kind of keep together for the past ten years or so and it's now beginning to fall apart. So last week the Chairman of the FCC says we are going to look at network neutrality and we are going to look at why AT & T is keeping google voice off of their network. We are going to look at this handset exclusivity which basically says we can control end to end every device on our network and what features you put on those devices. The applications and services you run on those devices. We are going to investigate is this a necessity because they argue that if you don't do this the network will implode. I argue that this is interesting because [that didn't' happen] in all these other countries does the law of physics work differently in the United States or is there something else at play.

What this boils down to a battle that we have a very good chance of winning if we can keep providing research, and information and facts , as opposed to the misinformation, propaganda, and lies that are being foisted on the process by the other sides of these battles. If we can keep providing information to the decision makers I have a lot of hope that they will make the right decisions on these issues. But things have gotten so egregiously bad that while our international ranking was 1st ten years ago in terms of broadband penetration and pricing, then it dropped to 4th and people are like well that's weird. Then it went to 10 and we are like well this is a problem, then 12th . . . and now it's something like between 16th and 25th in the world depending on how you want to measure this.

The other think tanks are like you just got to leave it to the market and have faith. They argue the numbers are not the best numbers out there and I agree. But there solution is

that you shouldn't pay attention to them and the trajectory is staring at me right in the face. What I hope is that our international ranking stagnates so we won't fall further behind. That would be an improvement. In DC we have a handset exclusivity bill that is pending in congress right now. We have a chairman of the FCC who is saying I'm interested in looking at network neutrality to prevent people from commoditizing scarcity over increasing capacity and functionality. We have got a White House that is super active in a lot of these things. The fact that the president had a speech last week where he wanted to talk about the importance of network neutrality that is a HUGE boon for us. When it breaks down it's about saving each and everyone of you hundreds of dollars a year by lowering costs and you are talking about building far cheaper networks. You are talking about spreading connectivity to huge numbers of people who couldn't personally afford it before but also enabling organizations that have capacity that have expertise to want to build networks to want to provide services simply getting out of the way and allowing them to do so.

So when I think about the digital divide . What I like to call this battle is one of command and control versus open and participatory. What I see is these are the last gasps of digital feudalism. A massive effort to enclose spaces and prevent anyone from liberating people throughout all forms of communication and I think that the battles that we are fighting right now are really nothing less than about empowerment and democratization of all communication infrastructures.

Appendix E

Digital Divide October 8

Abdul:

The school and the library really are the essential institutions that are in virtually every community providing information and education for classes and lifelong learning. So both the library and the school are very much a part of the central nervous system of the information society. It also should be known that here in Champaign/Urbana institutions have historically been at the cutting edge of adopting this technology and using it to advance the interests of communities. So we are very pleased to start this journey into the institutions with the library.

Mel Farrel and Deb Lizak from the Urbana Free Library.

Mel Ferrel

It's greats to be here this morning. Debra and I are really pleased for this opportunity to address digital divide issues from the public library perspective. Although my professional library experience has been in the academic realm, except for six years at the Champaign public library, Deb is the real expert at public library area arena, although I hear all about the issues and the questions and the problems from being on the board. I will just kind of set the stage for her nice content that we are going to talk about today. Back to digital divide issues and you see I have a capitol S on the screen because we mean to say issues with a plural because we believe the divides are several there isn't a single one and they involve more than just the traditional concepts of the divide as most of us think and talk about it and read about it.

Today I will begin the discussion with general outlines of the issues. Who the players are and what the policies and strategies could involve. Deb will pick up from there and talk about the specifics relevent to the Urbana Free Library experience. As you might expect public libraries usually think of themselves as part of the solution. But solutions involve policies and strategies so that is basically what we are going to be talking about today. As part of the solution in the digital divide conundrum and it is a conundrum because it's not just a single topic to address. The solutions for the digital divide issues must involve not only practical applications of ideas but also a game plan to reach those solutions. That is policies, ideas, procedures those concepts. When devising strategies it's often helpful for me to sort out the variable involved and put them down on a piece of paper so I can sort them out. You lay them out and consider the issues that might apply to each variable. You can even draw a map to discover the inter-relatedness between them and this is how I kind of work. Maybe it's the way my mind is. You know you have the literal

thinkers, you've got the abstract thinkers, different ways of learning and such but that is how I like to think about it. That is kind of what I did this morning.

Once you have a place or a map to categorize it becomes easier to talk about and then devise solutions. When deb and I started planning this talk I went over to the library and it was really nice because we had kind of a brainstorming session and we invited one of the Urbana Free Library staff Mary Towner. You probably know her she instructs here in Glis. It was really useful for us to toss around the different ideas and this is when we came to realize that there seemed to be multiple facets to this situation. We asked which part of it will we tag on to and it was difficult at first to tease them out individually. Finally when we got them down on paper we were able to organize our thoughts a bit. It's difficult to tease them out because they're so interrelated and they interoperate with each other. These issues, the players, the policies, to treat them as isolated cases or sides of a single debate is very difficult. So hopfully once I get done blabbing here [Deb] will be able to make things a little bit more clear for you.

As a result of our talk that morning we thought it would be more helpful in this context to illustrate multiple tensions. I think of them as incipient divisions that interoperate in a digital divide or divides. Most of the time several of these issues are occurring simultaneously in any given scenario. We came up with a broad definition of these variables these tensions whittled it down to three issues. What the perspectives are, different audiences, different participants, what their different points of view are. Then the policies that kind of surround all of that. So lets frame these in the next few slides here.

What are the issues? It's pretty easy to include technology this is what we are here about. We can assume that the lack of means patrons without. We can also assume that having it are libraries offering services. So this kind of segue ways nicely to the concept of skill sets . This would mean patrons seeking help if they lack some of that to bridge the gap between the skills they have and what they really need to be competitive in an increasingly tech savvy world. I mean you can't even apply for a job without getting online and filling out a form. This is the reality of today. We also have the concept of library staff struggling to keep up with the latest widgets. In my job it's impossible you need to be updated on new technologies all the time. What's a tag cloud, can I download this epub format to my kindle. How can I keep abreast of all of this and of course time. Who had enough time. It's getting harder for [library staff] to meet the burgeoning demands of the user populace who are coming in to increase their skills. But they already have a job, they got a traditional library job. Maybe they got to do some research for a collection development . they got to read the latest magazines, to see what the latest publications are. They have to do their job plus accommodate new people coming into the library and then, of course, there is money.

Money seems to be the basic part of everything. Money for new computers, subscriptions to new e-resources, funding for new programs, particularly if you are talking about training and digital divide accommodating those kinds of things. Salaries for employees, you need to hire someone to work the reference desk while the reference librarian teaches a group of kids how to add an attachment to an email. So that kind of stuff. With money there is never enough. Last but not least and I think this is important for us in Champaign/Urbana in such a diverse community as we live in. How do you really accurately gauge the needs of the population. I know you heard earlier a few weeks ago that, from the people who did the survey, for the UC2B project to assess who had what in the neighborhoods and the census tracts that were being considered. It was an eye opening experience in many ways. So we do have a diverse population and can all of our citizens agree on what they need. I think you would have quite an interesting conversation amongst our community.

Who's perpective are we talking about? Taken from the groups of people shown on this slide can't you just imagine the myriad divisions a library would need to address. You've got divisions between patrons and users in the library. The library staff and then citizens trying to really agree on what is needed. How could a library address all of these needs and hopefully satisfy them. From the user library perspective the digital divide may yawn between the resources users have at home versus what they can access at a library or maybe not but more of that in a minute. The profile of any library staff would most likely show stark contrasts just like it would in the community itself in technological literacy. Here is an example from my own work setting with training staff in an academic library setting.

We were doing a workshop a few weeks ago on a software tool called macroexpress. We use macroexpress in tandem with our ILS system , our consortium of libraries use voyager, and macroexpress helps us with mundane tasks that need to be done in bulk rather than doing one thing at a time you can use macroexpress to expedite those tasks such as adding subfields to heads, updating patron expiration dates, and their records and that kind of thing. The first exercise that morning was to simply download the program from our carli website where it resides. Well that involved having to right click to download to the PC workstation and there were at least two people who could not figure this out. These are library staff in academic libraries in Illinois and it was kind of eye opening and I said to myself 'how are we going to get through the rest of the morning if we can't figure out a right click' and this is the kind of digital divide that you find in your own staff in a library so you have to accommodate that as well.

Finally the citizens and I alluded to this a little earlier. What do they think about the libraries mission and purpose, is it a place to borrow books? Do they think about the living and the learning that can go on in the library? What about hanging out after school – what is the library supposed to do? I don't think you can really get a group of citizens

to really define that in a very clear cut way. What about the patrons who are already tech savvy who have the latest gizmos at home? What do they think the library should do for them? How do you serve them? So you got divides even between your own citizens about what is going on in this world.

Finally the policy divides and Deb will put each of these into more detail here, but I wanted to provide a context here so you will have a heads up and any of these points can have an impact on how a library may deal with digital divide issues. These are all things that Deb had on her plate every day and she is juggling them and trying to keep them from crashing to the floor. Some policy making examples I give you here are in the library. Deb brings these to the board every month. When is the building open, are the computer lab hours different than the collection access hours, when are programs and classes usually and optimally offered, these are all things we have to juggle and think about.

Policies on access – what are the computer use policies in the library. Do you have internet use regulations do you have to think about what groups of people can access what. Are certain databases off limits to different segments of the population. You have lots of things to think about all the time. Issues with behavior and rules, socializing after school, and rowdiness, what are the limits here. These are real everyday issues that have to be tackled. Policy issues that are budgetary in nature and that drives a lot of the decisions that are made such as: Can we get more computer workstations in the lab, can we upgrade the OS, what can we do? How many seeds in a database can we purchase and Deb now has to think about whether or not they can continue to license their web feed service. All these things constantly get juggled and tossed. Other budgetary things like salaries do you have to add new people to do programs or just to staff the circulation desk. Because the professional librarian is off to teach students how to do this and that. Cost is a big divide on many levels.

The State of Illinois also concerns itself a lot with library card distribution and taxing districts for public libraries. The playing field is becoming a little bit more even but I remember struggling with these things 10-15 years ago when it was not so easy if you were not in a taxing body within the public library district you couldn't get a card. It was that kind of stuff that you have to think about. There are still underserved townships and zones in the state that public libraries have to deal with. How does the community support the overall issues and the mission of a public library. Will the values of some citizens keep them away from the library? There could be people who say I don't support the concept of having teenagers play on Wi stations in the afternoon so I'm just not going to come to the library.

Deb:

I'm glad to be here because I like to trumpet public libraries so you gave me an opportunity. I like to start with public libraries as solutions because the policies you are developing are because you are trying to be a solution here. Your trying to solve that. So you need policies that get you there. I'm going to see public libraries playing this role in the digital divide a lot because we already have things. We already have open hours and fairly long open hours. We have available staff we have available budget even if it is overstretched. So we are in essence sustainable. We are going to be here long past a lot of initiatives. That is why in the broadband grant public libraries are considered to be anchor institution because they will remain even after some initial surge can help us over the hump. It's not to downplay the need for decentralized public computing centers which I think you are going to have in the rest of your lecture series. Because often for people who are the least skilled or the least comfortable putting things in settings where they are most comfortable are going to be the easiest way to reach them. So not to downplay the need for that – the advantage of public libraries is they are there and will continue to be there. My evidence suggests from our own experience that people are already in the public library so when I was having to gather data for the UC2B grant. I found we need all of the resources we are offering particularly the help with the training and the staffing hours because our budget hasn't caught up with that. What I realized is we already had the audience they were trying to attract in that grant. So a lot of their effort was in "how do you bring people in" it's like looking at our statistics I don't have to worry about that part. I have that part and if I have better service then I will have more of that. So that is the plus for public libraries. People have already found them as a place for technology resources.

So to set a little background I'm going to give you some statistics from the Urbana library. When we were doing the grant in June in June statistics we found that we were averaging around 2000 computer sessions per week. We currently have 44 computers with full internet access [mp3 file is cut off here]

Appendix F

October 15, 2009

Don Owen – Asst. Superintendent for Curriculum and Instruction

I am going to talk a little bit about my own history with technology and the history of the digital divide in Urbana Schools. I'm the assistant superintendent curriculum and instruction for the Urbana School District. I've started my third year in that role and that is very much an administrative role. I'm still having a hard time framing myself as an administrator. I'm a teacher, I always will be a teacher, and today I would like for this to be fairly informal. So if you have something that you want to say, a question that you want to discuss, please wave your hand and get my attention and I have no problem with that at all.

That being said: the focus of today when I was first asked to talk about the policy perspectives of the school district and policy and the digital divide are things that sometimes go hand in hand and sometimes are parallel tracts that run one hundred miles apart. I'm going to try to do my best to give you my perspective on how policy relates to issues of equity, issues of social justice, and access. But I would also like to hear your perspective and have you ask me questions about those things. If you don't feel like I'm giving you enough on that topic I would be more than happy to engage.

Policy in the schools is something I could do an entire course on and people in fact do entire courses on this on a regular basis. I'm currently in my third post baccalaureate program as a doctoral student in educational organizational leadership. My main area and interest of study has always been history. I was a history teacher for 14 years at Urbana Middle School and I do look at things from a historical perspective quite a bit. So as I go through you will see that a little bit. I am going to give you a brief history of technology in the schools, just because when I reflect on my career which is only 20 years long it's not huge I still have a hard time realizing that when I started teaching there were no cell phones in common use. There was no connectivity in the school district when I started teaching. We didn't have email when I started teaching. Just to have some common terms to work with and I'm sure you have gone over these kinds of things over and over with your coursework. But broadly defined I see the digital divide as a gap in access to technology that is what is usually commonly referred to in the literature both popular and more research based.

The important thing to remember is there are multiple gaps. The gaps aren't just socioeconomic. There are major gaps in the divide between rural and urban areas and that is something living in the middle of cornfields in Central Illinois I think we have a much better perspective on this than some areas. Some areas when you talk about the digital divide it's completely based on socioeconomic and racial lines. But here we really

do have to take into account issues of rural v. urban and we live in a small urban community which is wonderful for those of us who like an urban feel but it also reminds us on a daily basis when we get on a bike and head any direction for five miles that we really are kind of in the middle of nowhere sometimes.

The other thing we have to keep in mind is there are divides based on gender and those are kind of deeper seated divides that are reflected more from our societies gender biases that have taken place for years and years and years. There is still inequities along gender lines and we have to make sure those discussions are present when we talk about the digital divide as well. I will touch on some of those in terms of how the schools see solutions to that. Of how programs we have partnered with the university are attempts to bridge that divide as well.

Q: Is the gender divide employment or job related?

I think that is a combination of things. It can be employment and job related. If you look just at the field of education which is predominately female especially K-12 and you look at areas that were first connected. Education is one of those fields that was connected 10 to 15 years after the business world. So I do think it relates some to employment and the economy, but I also think it relates a little bit to an inherent biases within schools that are gender biases. Girls being tracked into classes that maybe don't have access. When I was in high school my computer science class was 15 boys and three girls and that is something that schools have to tackle. The literature on gender bias in the schools dates back into the 60's and was popularized by the Sadkers in the 80s and 90s about the fact how a hidden curriculum kind of steers girls towards certain classes that often times have less access to higher levels of knowledge, higher levels of technology integration, and a less rigorous curriculum. I think we have made a huge amount of progress in the last 20 years on that. But I think that we are not there yet. I think if we were there we would be seeing bigger impacts in society as a whole.

It also leads into the issue of opportunity gaps that leaves into inherently unequal education and when I talk about that I'm talking about access – let's say my school happens to be fairly well connected to the internet. I could drive half an hour in a certain direction and find a school district that is still basically using a dial up kind of connection. All of the teachers have their own email addresses out and not connected into a general server. Those kinds of things have an impact on the education those students are getting. Those students aren't going to be accessing a site to interact with their fellow classmates and their teacher to work on their school assignments. That's just not going to happen and that leads to inequalities in the educational experience and that is a HUGE digital divide.

A brief history of the Urbana School District. Pre-1990 there were PLATO labs and the old Apple 2E's which , for those of you who remember five and a quarter inch disks, I was recently asked to dig up some demographic historical data on the district and the secretary, who is in charge of student records, handed me a box full of five and a quarter inch disks and said this is where it all is. I looked at her and then said okay find me a computer then and I doubt that is going to happen. But those Apple twos that was it. It was high tech. Connectivity was almost non-existent. There were about four or five dial up lines along each building that were for administrative purposes.

In 1992 our school district made our first big push through fundraising efforts and paid for the entire first wave of what was called the era of technology for the Urbana School District through private donations, fundraising, literally selling candy bars. We had a folk musician come in and we had a huge concert series and raised fifty, sixty, seventy five thousand dollars that outfitted all of our schools with labs. The Urbana Alumni association was huge supporter of that. The Champaign Urbana School foundation got us new computers. They got us brand new computers and boy were they state of the art.

The irony is they were dropped into our buildings with no tech support, no personnel, and no plan for putting those in place. I will never forget I came back from a social studies conference in September of 1992 with a piece of software that would allow me to do a mock election and I said I was going to do a mock election. I walk into the computer lab and there are all of these boxes and I had three weeks before the election. So I went to the principal and asked can I open up the boxes. She said yeah as long as you put them back because we don't have anyone to monitor them afterwards. [laughter] So I did…I was a social studies department chair at the time. I cracked open all of the boxes and I set them all up. We ran 750 students through a mock election and, I believe Clinton won in a landslide, it was a fun experience for the students and it was their introduction to computers. It was funny I was told to put them back, but I never did.

But getting computers out there and in front of students and teachers is the only way you are going to actually get them used and they would have sat in a box for the remainder of that school year if I hadn't done that because they didn't have a plan. There was no plan to do that. Since then there has been a little bit better thought process in terms of implementing technology. In 1994 is when we first had a truly connected classroom and I believe that the National Center for Supercomputing Applications received a national science foundation grant, a research and education grant, that brought teachers together, there were about 50 of us from East Central Illinois and every teacher that was part of that project received Internet connection to their classroom. It was a dial up modem but the grant paid for access and within two years we pretty much had full connectivity in our district. There is a computer in every classroom almost. There were some teachers who said 'no I don't want one' and they were allowed to say that. There was a computer lab

in almost every building. There were some principals who said I don't have the space I don't want one and so they were allowed.

So what's the problem right there? You have the people who don't want it so they will never get it and you have those students coming out of the elementary schools and coming into the middle schools and having a completely different educational experience in terms of technology than the students in a school seven blocks away. [This was not so much a matter of policy, but of what is called 'site based decision making' and that was seen as a way to democratize schools] In this country educational policy should never come from the federal government it should be local and the more local the better. The problem with the more local the better, especially when we are in a small urban community like Urbana, it ended up being a step in the wrong direction [at the time] because it provided one group of students with a technologically rich integrated educational experience and another group of students had never sat down in front of a keyboard until they got to sixth, seventh, or eighth grade. That is huge and I can tell you that, even though we didn't have a keyboarding curriculum and we still don't, and that is an issue to we can debate. The kids who had sat down in front of computers were very proficient in moving around the keyboard. They were very proficient in the use of a mouse and by 1997 computer mice were pretty much everywhere.

Unfortunately in our district from around 1996 to around 2006 there was this major stagnation and I won't point fingers too much because I've had every role in the district and I can point fingers at myself on some of this. But we had a school board and a district administration for a while that believed that computers should last for 10 to 15 years. So once you had a computer in place and a computer lab then there is the tendency to say hey we are good to go. After all didn't you spend a lot of money on it and if we spend ten to twelve thousand dollars on a computer lab then it better last for ten to fifteen years.

The problem there is all of a sudden, we as a school district, are now 12 years behind the rest of the world in terms of everything and I say that truly there were pockets of innovation. Urbana Middle School received numerous grants and awards. We had a technology coordinator who came in who is an amazing grant writer. She received Toyota tapestry grants that bought laptop carts that could be wheeled into classrooms and wireless internet. But the high school didn't have any of those. The elementary schools definitely didn't have any of those. During this period of stagnation we still had two elementary schools that had no computer labs and some of their classrooms had only one computer which was a teacher computer.

The art programs the consumer technical education programs and the science courses were really the leaders. They were the ones that saw the need and went out and wrote grants and they would go out and spend their own money. They were the ones pulling stuff in. So there were these pockets of innovation that were amazing. We had science

teachers at both the middle and high schools that went on and got advanced degrees in technology education. [end of MP3]

Appendix G

October 22

Jason Kiest, Program Director and Andre Arrington Executive Director Don Moyers Boys and Girls Club

Solutions Community Perspectives

Presentation begins with a video of the boys and girls club

Jason Keist – Program director of the boys and girls club.

[According to the audio Keist distributed a survey that he did at the Boys and Girls club and he had not 'planned' on presenting at the Digital Divide lecture series that day so he was shooting from the hip. He did invite questions on the survey and it appears the survey was used in purchasing hardware and software programs in creating a computer lab on site]

Before coming to the boys and girls club I was an intern at the Independent Media Center and I was a program development coordinator there for about seven months so and that was during the end of me completing my MSW here at the school of social work. I also created a youth media program called the Indymedia and Arts lab that ran for about 8 days and went really well and I hope we can build upon it.

So what I have here is we worked with the Don Moyer boys and girls club at the IMC and they had received a grant to create the team computer lab downstairs. Before they had a couple of computers, they had a lot of initiative, they had a lot of promise, they received this funding and they had this other idea of just bringing community members together to create a vibrant center. So the kids could have their hands on tools that they may not normally have their hands on at school and, especially with this population, at home. This survey going around is one that I created that is very basic, it's a pre-test. It's trying to see where the kids are at, what are they interested in, what computer skills they already have, and also what computer skills and interests they have that they can learn from different forms of media. So it's split up between 6 and 8, 9 and 12, and then we go 12 and up. So the boys and girls club you can see by the surveys we serve youth the little ones at 5 and 6 years old and we have the grown folk, or they think they are at 18.

It's definitely more difficult to get the older kids in for obvious reasons. The majority of the kids that come are small. They need after school care. Again the boys and girls club is not a school per se, but we do offer educational programming after school. Tutoring and we have a variety of other programs that fill that gap.

The boys and girls club teams up with Microsoft to create a partnership. The lab itself I really wish he had a before and after picture of it. The change is tremendous it goes from a space that seemed to be created, not on the fly, but there were limited resources and that is why they applied for this grant. Now it is definitely state of the art and we are trying to work in a concept of, through the Indylab, of working in a community media portion to it. Independent media stresses to these kids that 'you havea story, you can tell it, there are certain ways you can tell it you may be used to, vulgarity and everyone gets their emotions involved' or here is another way here are tools that you have and you can actually present this to create change in the community.

[Question on Survey regarding the number of kids who had computers at home....seemed to be on the high end]

Jason – There was a lot of surprising things from the survey. These kids are so technologically savvy. I have a daughter and she is five and she is learning these things so fast and that is what's amazing.

[it is pointed out that Jason has a master's degree and that kids who come into the boys and girls club do not have parents who have masters degree and Jason agrees with that assessment]

Off the fly I think they are learning things at school, they are opened to this hardware at school, and I think it's involved more in the schools than I was really aware of. But what is the proportion of people owning computers now? I couldn't tell you.

[still some skepticism regarding the numbers of home computers reported to be owned by the survey conducted by Keist] but that is definitely hopeful.

It shows that there is this tool and now it opens a whole new paradigm. We thought that popular knowledge indicated that these kids were at home and there were no computers at home and that was my thinking too. Now we can see that we can learn these skills and they don't have to leave them at school or at the boys and girls club they can go home and expand on these things. There are always using the network and all of these social networking tools at a young age. So can we now inspire them to use these tools, not just for gossip, or for playing around, but can you use these tools to express yourself and create change. What are your real ideas, not what is the latest style? What is the latest music? What are your passions? What are your goals?

[Someone pointed out in the audience that some of the kids may have older hand-me-down computers at home and not necessarily Internet access – the survey did not ask respondents about Internet access] If I could go back and I will then I will need to develop a survey that has something about Internet connectivity because that is the basis now for a lot of things as you all know.

[Upon being asked to describe the labs at the Boys and Girls club] 12:00:00

Well there is a lab downstairs that we are talking about – the team computer lab that was refurbished. That is right when you come into the door its pretty much right in front of you. There is a glass door there. There are, I believe, fifteen computer terminals there. You come in and we have PowerPoint capability with the screen and everything like that, a printer, they are laid out very much like a classroom. It's a very teacher friendly and a student friendly layout. There is another one upstairs which is an older one, computers are kind of lined around the walls but they don't have the same software as the downstairs computer lab does. The purpose of the downstairs was to really give the teens a place to learn. Because, of course, the teens want to be separated from the little kids so this was really kind of geared towards the older kids – the younger kids usually go upstairs. They use the learning center upstairs.

[In terms of the computers and the technology what do you think they are getting at the boys and girls club-that they are not getting at school or at home-are there tutors]

Right now we have a gap in someone to run the program as I was involved in creating it. There was someone who ran it, for I'm not sure how long and now there is a gap in that specific program. I will know more information as I go on site and talk to the teachers and find out what they are learning in school. I want to have a firm grasp on what they are learning in school so that when they come to the club I can make sure they strengthen that foundation but also build. We also have parent committees who meet and we meet with the parents to discuss any kinds of issues and questions that they may have. So hopefully we can bring everything together. Let the parents know what the kids are learning in the lab and if we can provide software for them to take home that would be wonderful. 15:00

[In terms of packages of what kind of programs educational, games, and security]

The gentleman we contracted with in town he stressed Internet security. You know that is huge there is always a very great fear of that. There is the Microsoft Office Suite. There is also audacity, we were pushing for audacity to get put on there and get some zoom cameras so the kids can go out and film and get that exposure to media. Audacity is production software where you can manipulate sound.

[I'm thinking of ways in your job you could identify ways to support you work. What kind of things the university could provide to you or the kinds of professional development that you can use to increase your capacity to do what you need to do. Do you have any thoughts on that]

I'm open to any type of workshop and I'm believe that on the ground learning is number one – getting the feeling of the club exactly what is going on day to day in each program.

Teaming up with the university the boys and girls club has always been open to that. Personally I'm open to anything that I can learn. I can learn how other clubs and program directors in other capacities – what are they doing what are their goals, what populations are they working with.

[At this moment it might be useful to just go around the room and have a spontaneous consulting session. We are all now hired as consultants to the boys and girls club and we are interested in overcoming the digital divide. Everybody has 30 seconds to make a comment. We are going to create a lot of dots and then we are going to see if we can connect the dots into a scenario that might be usefull so lets just start with you what do you think would be kind of a useful project or proposal for the boys and girls club to think about given the film you just saw and given the understanding of the digital divide]

Audience member – I'm going to expand on what you said about zoom cameras. Like you said you could take the projects out into the field. With computer software and, you know, digital cameras and digital videos and how to use those outside of a computer lab setting.

Audience member- I don't think the use of the digital divide starts with the use of technology. I used to work in a boys and girls club at 12 and 13 and the reason why I was an employee was so the manager could keep me off the streets from selling drugs and it worked because I was making money. But establishing maybe something like that where it does provide kids some work. Maybe allowing students to take leadership roles in some type of aspect that allows them to one day teach computer programs. It starts with some type of communication.

Jason: Could I add on real quick before we move on that note. We are beginning to plan a teen summit in the sense that we are trying to get the youth to come to the club and maybe kind of switch the relationship of power. Because we are used to speaking 'at' our youth especially at certain age ranges. Speaking at them and telling them what they are doing wrong. So now what we are trying to do with the teen summit is hold it quarterly at the club and invite youth and other community members to come out and have the youth panel up front expressing their ideas, volleying questions from the adults and other teens in the audience, and kind of create that dialogue. I think it can spawn into those youth if they are not already interested, becoming interested, and hearing ideas of whats needed in the community and saying 'Jason, Andre, how can we make this happen' you know maybe it's idealistic but I don't know I can see it happening.

Audience Member: You mentioned creative projects that could be encouraged and our reading this week had to do with literacy and coming up with original ideas and self reflection. . .essay writing, and student generated ideas, workshops, and teaching.

Audience Member: I guess to follow up on that I don't know how viable this could be, but if you are trying to encourage people to upload content. [using programs like MySpace or Facebook] I wonder if there is a way you can draw all of the content that is being uploaded and create a community online…which can mobilize [the kids] voices

Approx: 23:00:00

Audience Member: I'm project coordinator of community informatics so I tend to thing organizationally so I guess my approach would be to try and leverage what is already happening with the boys and girls club with WILL, with IMC, with a number of organizations that are already doing things and trying to coordinate for effective support of the youth

Audience Member: I would want to look at what population is the boys and girls club not reaching at this point. Are there pockets still of students who are not coming, especially those at a young age to get them motivated to come and what can be done to facilitate their participation. Because it seems like a great program.

Audience Member: I think that the first step is to gather more information from the kids and also the parents. If you are already having parent meetings why not ask them 'hey your kids said that most of you have a computer at home. Is that true?' I mean just see what they have to say and what they think their kids could be learning as far as computers go.

Audience Member: I think it would be useful in addition to having teen summit where the youth can form a panel , to have break out sessions where other youth organizations can come in and speak about what they are doing with technology. To try to form that kind of community partnership.

Audience Member: I don't know if this is something you can include, just like you said you are brand new and congratulations . Maybe just some demographics type information that comes along with the survey just so I would know somebody coming to you for guidance or what not exactly what population you are serving and to follow up on …where are those gaps.

Audience Member: [following up on the parents coming in] Having something like parent/child day where some of the students can teach their parents [to do things] on the computer. We can have more bridging a social divide.

Audience Member: Just looking at the survey it already looks like students are very good with using a computer. But I wonder what they think the definition of skill is. Is the definition of skill involved being able to turn on a computer and play a game. So I think we need to figure out what skills they really already have. What skills would be

beneficial to them and getting involved with directing the progress of the programs and the participants.

Audience Member: To bounce off of what [classmate] said. I think we need to help show the children what they can do with the technology. My experience in the Detroit Peoples Community Center there was their level of computer literacy was MySpace, Facebook, and downloading mix tapes. So maybe you can have a tech day where you can show them things such as the technology that the University of Illinois has and the other things you can do with it. That will open their minds beyond some of the things they currently do and think are important with this technology.

Audience Member: I thought that going along with what you are saying 'what do you do when you are on the computer. Is is "myspace myspace myspace" Myspace can be incredibly useful but finding ways to diversify from myspace and producing a video that you can put on myspace and get a little bit deeper into that.

Audience Member: So I have actually been volunteering at the boys and girls club for the last two weeks and one thing that I notice at the computers that they have is, like you said it's mostly Office and there is like lexia which no one knows how to use. I think you should look at other forms such as open source programs that can do the same thing as a lot of expensive programs but that are either free or easily attainable. I think that not only does that give the kids the opportunity to use those programs but it's also like an eye opener into open source. What is open source? What kind of things and development that people are doing out there. Kind of like what you were saying opening their eyes to there is what you use in the office versus what you can use at home and kind of getting a different perspective on what is out there right now. What kind of programs and what kind of technology there is.

Audience Member: I actually don't have a lot to add. A lot of people have made really good suggestions and I'm still learning about the boys and girls club so I don't feel that qualified to add too much to the discussion. [its suggested that since this is a 'general' discussion on youth and the digital divide that there is no need to be constrained due to lack of knowledge about the Boys n girls club] I think that starting out with the information. What exactly do people have by way of computers at home. What are they doing with them and going from there and partnering with other community centers. What are other community centers doing about technology and youth. What can be the niche of various places and how can they partner.

Audience Member: I've also volunteered at the boys and girls club these last couple of weeks and I think the biggest thing in creating those partnerships with other organizations. I think it's really cool to bring in people from the university to teach classes as we look to make a more lasting partnership. It would be really helpful to know

what kind of programs you are looking to have us do and work together to create a curriculum. Because I think that would be really helpful to be able to create specific curriculums that would best help the kids.

Audience Member: Since you said you all partnered with Microsoft you should consider teaching that suite so they can take that knowledge and apply it to other programs.

Jason Keist: That is part of the 'club tech' program definitely focused around the office. I love the idea of bringing in the open source in areas of development because it's huge nowadays so many applications. Why buy word when you can get Open Office.

[another audience member suggested developing a skills test and setting goals for learning specific things by a point]

Audience Member: I actually have some ideas that come from my own interest. I'm very interested in local history and I would like to get kids involved in going out and doing things and using the computers as tools for what they create and I think a very big problem is and it's obvious from the comments is we encourage kids to be consumers of the mega computer industries . We need to make them into creators and not only consumers. I don't think a computer should replace television as a new tool for selling things to kids. In order to make them creators we have to make them do things and make them aware of what they can do. Local history for me is a personal interest and that is what I speak of. Most people don't really know anything about the history of their community. There is no connection to the community, to members of the community, of how it was built, how it came about. Kids can be sent out into the neighborhood and have them do actual research, collecting information, we can take them to an archive they can understand how to use an archive. How do you find information about who lived in this community and what dates and what was their significance and I would like to have the kids bring their information in and create podcasts or videocasts of their own neighborhood and show how it was built up, how it came about to be what it is today and how to find those people in the neighborhood who are inspirational. So the kids get to [find people who can inspire them to do good and are in the neighborhoods we are dealing with]

Audience Member: I was thinking along the same lines as podcasting. It seems like there is open source everything. There are things that are going to let them create their own content. They could collaborate on some kind of project that, in the end, is going to be shared, not just with other kids at the club, but outside the club.

[Keist talks about ideas for a soundproofing room and ways to create content include a poetry workshop]

Audience Member: I really like the idea of speaking with the club members. To find out things that they want to do in addition to other things they are learning. Also seeing what kind of programs or things they would like to use and tying it into with like everything that is going on. What is going on at school, home, taking things in the community? I really like the idea of the leadership program; maybe they can talk to the other kids and act as a delegate.

Abdul: I would just like to end this session by asking how many of you anticipate working with the youth of the ages in the constituency of the boys and girls club in your future occupations. I'm not really feeling the hands here [counts hands] there is maybe just a third of you and the rest of you are anticipating careers in communities? In branch libraries, or in bureaucracies? Because if you are in the community, if you are in the branch library, you are going to be dealing with youth?

38:00:00

Andre Arrington:

I'm glad you posed that question because all of the ideas. The plan is really everything you said. Nothing that has been stated is not a hoped goal to achieve. But there is two obstacles the human resource and the monetary resource and who wants to go in and really do that work? [On Jason] I really didn't know if he wanted to go in and do this kind of work.

Every time people get advanced degrees they look beyond so it's something that everyone needs that opportunity. In order for the things you just talked about, the things we hear on these talk shows, and we hear the bloggers now. In order for those things to come to reality, somebody has to do it. Before Martin Luther King, and I'm from Alabama so I know a TON of Alabama history, before Martin Luther King came to Ebenezer Baptist Church in Montgomery Alabama, there was another minister there named Vernon Johnson. He was really the founding father of the civil rights movement for Montgomery. He was very active and one of his sayings was "if you see a good fight, get in it". So we can go around the table and bring ideas and bring trust that is one thing. I majored in social work and I always turn that word around. I'm a worker for society. Because if I do not put myself into the equation to be an agent of change then things will not change. So that is the first thing – we have to be and see ourselves in that process. That is one of the things that when abdul sat down and talked to me about the community based computer centers I'm like these things already exist but they lack the financial support because everyone has to feed their family.

To attract the talent that is need and to have the commitment that is needed there needs to be monetary resources. Missionary work is great, but at some point in time everyone wants to have that level of comfort ability. We have to have a social entrepreneurial spirit

– there is a lot of things on this campus that talks about social entrepreneurial ship, but we have to take it to another level. How do you go and get the resources to go and fulfill the mission and you have to be mission driven to do that work. Because I stepped out – let me know if I'm in the right place in the program. Should we go to who the club is or does everyone have a good feel for who we are and what we do.

Question: How are you funded?

Very good question grants, private donations, and the United Way is a very big portion of it. Any kind of way that you can imagine we receive state dollars, we receive county funding, and we receive some municipal dollars. Let me explain, we are a private non-profit – you hear the word non-profit a lot, but if you go to the IRS code there is a lot of non-profits. The University of Illinois is a non-profit you hear Provena fighting over whether they are a non-profit or not but they fall in different categories. We are in the 501C3 category, there are c4s etcetera. Different categories allow you to do or restrict you from doing different things. For instance in a c4 category you can't lobby.

So we are a private non-profit, so we aren't state funded, no tax institution funds us. So we are just like any other business or take your personal check book. When the checking account says zero….that's it. So we are like any other businesses a lot of people have a misnomer that non profits have a lot of advantages. The only advantage we have is we don't pay property tax and we don't pay sales tax and we only pay sales tax on certain things. For instance we had to switch our gas card from one type of card to another because Mobil sent this letter out saying you no longer fit under this exemption so we are going to start charging you sales tax. We are not going to have lawyers spend time to fight Mobil. So you are going to either find another company to get gas from or find another way to pay for the gas. That's reality so there is nothing magical about a non-profit I still have to pay payroll taxes, if the payroll gets to a certain level you have to do it twice a month. We are really just a not for profit business. Our boards of directors do not gain a profit. If our board was Busey Banks board those board members get compensation . Our board of directors do not…there is a difference.

But then they are like a venture capitalist group. They are not getting a return on their investment immediately . If I put money into Mobil buy shares of stock then I can get dividends immediately. If a venture capitalist says I have this idea and I want you to invest in it and it may not materialize until twenty years from now, well you may still give that person money but they can go belly up and you never get that money back. There investing in a belief of something. That is the way a non-profit is.

44:00:00

Percentage breakdown of where our money comes from. Most of our money comes from the government [in the form of grants as he later explained]. When the state budget cuts

came about and they talked about the mental health center, DSC, and Prairie Center getting cut. They are in the state statute, those services must exist in a community. So instead of the state running those institutions communities can create 501c3's to run those institutions for them. So they get state tax dollars there money is going to be fed to them on a budgetary basis. There is nothing in the state budget that says you have to serve kids. School districts and park districts are taxing bodies. We are not a taxing body. So that is a difference in the types of non profits. When we get a grant it is what it is. It's a grant and it has to be renewed every year. You may get lucky to get a three year deal.

A lot of these grants they are talking about now like with this broadband they are talking about sustainability and they tell you there is a lifespan on the grant. Like we give you money for five years that's it, we had a 21st century grant which provided funding to help schools on the state watch list. We helped Stratton [an elementary school in Champaign] get off the state watch list in the first year and our money had a 20% decline every year. Communities like Joliet, Chicago, and East St. Louis they can continue to get that funding because of their social problems, but from my standpoint we should not have been penalized because we were able to help assist a school district and helping kids transition. What happens is without that kids still need to have services. . .so that is kind of how we function on a day to day basis.

[Andre is asked if he has full time people as part of his staff who do grant writing]

We do not. That is a goal and an aim and a dream at this point. We are always trying to find the most economical way to get things done. Most of our legal work comes pro bono, we are trying to find someone to do grant writing pro bono. But it's a skill set and most people want to be compensated for their skills. So you are always juggling where do you place your investment. Because you always have this growing demand for the program and on the back side of that flier you have some attendance data. Our program is just continuing to grow. We look at data in a couple of way we look at average daily attendance, monthly attendance, and our annual membership. One we look at retention and how we are looking at things from a broader perspective. Then we even have another one we called track kids and those are the kids that come four times or more. Because you know the boys and girls club does dances on Friday then some individuals may just want to come to the dances and while we want to have a safe place for [kids] to come on Friday nights I can't then say we have an impact on [their] lifestyle, academics, etcetera. So someone may say why do you only have 108 kids are track – it's because we can't say all 1500 of them are members that have the same level of services provided with the same frequency of services.

This summer we broke the record we set in 2006. We averaged 169 kids this summer. Once again the demand is just there, we are trying to go into the new Booker T

Washington school, partner up with the school district. We serve kids in both Champaign and Urbana school districts.

[Andre is asked about the relation between the local boys and girls club and other clubs across the nation]

That is a good question. Again we are like a business. McDonalds – there are a lot of McDonalds but then there is the corporate. Boys and Girls club of America they are the corporate – they have regional offices all across the country , there is five of them and just like McDonalds there is a regional manager. We have a regional service director. The benefit of being aligned with a national organization is for the research and development of programming to do the trend setting and analysis that is needed as well as the marketing. I just left a conference in Cincinnati that helped shape, focus, and direct what are the latest trends in fundraising, marketing and also programming. Otherwise I would have to read a ton of manual, I would have to go to a lot of different sources versus just going to one source. That is a benefit and to have these trainings in an affordable rate because we are all buying in and paying for this. Other things such as insurance programs we can buy and leverage throughout the country. Revenue sharing is at a minimum. We do get pass through grants at times, for example we were lucky to get some pass through money for job retention and creation through the stimulus bill. The boys and girls club of America lobbied and we all had an opportunity to apply for grants into that and we were one of the recipients of it.

[The lab that is on the first floor is a state of the art community lab in town. Could you explain the history of that lab and the grant process that it involved?]

We received a grant from Comcast and the rotary. [when asked about that] There is a social and political gain and a corporate social mission. Some corporations do not have a mission about reinvesting back into the community and some companies do and it's a part of their marketing opportunities. Comcast, the Champaign Rotary Club, and the Community Foundation all gave us money. We wrote different applications and the thing about grants, the timing is something you never know about. When we wrote to the community foundation and the rotary Comcast wasn't in the picture. We were nurturing and developing this relationship with them, but nothing had solidified and they told us they had this grant opportunity and suggested we apply for it. So BOOM all of a sudden we have all of this money. When we was first looking at this we were looking at a replacement. The lab has always been there, but the hardware we were replacing was from 2001. It was the first lab that I had put in. So that was outdated in 2008 for sure. It didn't even function and we had to take everything out.

We have this money so we want to put a new vision in this room. Not just to put in hardware but as advanced hardware as we possibly can because we know we don't have

the built in budget to just replace hardware every two to three years. We also wanted new hardware to bring in functions that we would like to see and that is multimedia, which is dealing with high end media, and music, and things that would get kids motivated. [on the layout] We need screens, we need overhead projectors, and I went down tinkering because I like to know what we actually have and I thought we had the capability of all of the computers to talk to one another, but we didn't, so we bought some LAN software, so it's now an actual teaching lab. The main station can control all of the monitors and it puts us in a position to where we can look for opportunities to get other grants from a growth standpoint and that is what our lab is. We installed WiFi so the whole building is a hotspot. But the real key is we need manpower – we put in the tools we need someone to bring it to life. That is one of the responsibilities we gave to Jason when we hired him.

If we find another opportunity that is economical and revenue generation and aligned with the mission of the boys and girls club then we can use that base as well. We want to be open to doing some other things.

[Abdul: One of the interesting, surprising, thoughts and imaginations is that the possibility of jobs being created from the public computing programs is one issue and that may or may not turn out to be the case. (mentions 2 year program at Parkland College) The crisis of imagination it seems to me is given the social, economic, and historical realities. How can computerization of the community improve the quality of life or transform life, be 'agents of change' to use that expression so that maybe some of these historical inequalities can be impacted. In other words how can people in the reality of their lives use these tools to do something useful and to create a lifestyle change, a change in culture, and certainly a change in power relationships] 57:00:00

Crisis of the imagination, I like that and I think I will use that. I think you are absolutely right and I want to answer that by saying there are not too many new ideas out there. It's just more ideas that need to be worked that wasn't worked before. Before we partnered with Comcast we had partnered with Parkland and that is how we did the upstairs lab and that was through a grant from AT&T. We have had computer repair programs where kids actually built their own PC's from pieces. Once again this is nothing new and what happened was the money went away, there was no continuation, or the ability to sustain the program. There was no way to build upon a pipeline. These are some of the problems we have in the word – everyone is using the word sustainability – but no one has really put their arms around what is sustainable. What do we actually mean by it. Because you don't come to work one day out of the month. You come to work every day for how many days it is asked of you. That is what has to occur in order for anything to be sustainable.

The second thing is, how do you pay for that? I don't think there is an imagination crisis, we have the imagination, I think the crisis is around the level of commitment and the ability to sustain that. The willingness, can you be a high level, high intellect person who is willing to engage with kids? Give you another example: our Benjamin Banneker program has this phenomenal young man Geraud Henderson, he is working on a doctorate in a math/science discipline, but the work is not beneath him. He works with the kids, he mentors the kids, he goes over and beyond. He takes them on field trips because, in his heart, he wants to be a teacher. In his core values he is a teacher and this is just a teachable moment. Because he is working on his PhD and is about ready to defend I can't find anyone to replace him in this whole institution called the University of Illinois. I've met many people that have knowledge but the ability to transfer that knowledge and to part it with a young person to motivate and inspire them. He motivates and inspires kids. So that is where the challenge is.

To change the lifestyle I look at this broadband initiative and I can't say it will revolutionize people into going from rags to riches. I think that is still an entrepreneurially and creatively in the right place at the right time. There are just so many other variables involved in that. It's just as important to be technologically savvy as it is to read and write. It just simply is an essential skill-set that one must have. There is no if ands or buts about that. Right now, when I go home I log on, we have remote access. The first thing we taught to folks is to get your remote access. I'm just an information junkie, you saw my blackberry and I need detox and it's because I'm concerned about somebody communicating with me and I'm concerned that I'm staying connected with my constituents, my parents, my donors, and the public. That is just the way information is moving and it's moving so fast.

I didn't like to read books when I was a kid so my mother got me, I love sports, so my reading started with reading autobiographies. I would read about any one of you before I would read a short story even today. Because I'm intrigued with, how did you live, where did you go to, and where did you go. My choice of college was based on reading the bios of my favorite teachers and I applied to the institutions that my teachers went to. But my buddies when we was kids read comic books and they could read better than I could. I would go into the store and buy a bag of chips and some gum they bought a comic book. Do you understand? If someone had never put that Sports Illustrated in front of me to read – it's not what you are reading it's just the mere fact that you are reading.

We have to understand that we have got to get people engaged – this internet thing I look at the same way. The kids that never have access to the Internet, never learned how to click, never learned how to format an excel worksheet. They can't get a job. Because there are not too many jobs that will allow you to not know these things. My administrative assistant has to be able to take a raw idea and [take information over the

phone] then I go in and manipulate data. She doesn't have time to get a tutorial session , she has to be able to do things at a rapid pace.

Socioeconomic divide is now what we are talking about. If you don't have access to the internet at home then you don't get a chance to practice these things. If you want to turn in a real jazzy paper and you want to give color prints and you don't have a color printer then you have to be able to afford the ink. So how do you keep up with replacing the hardware? It becomes a socioeconomic issue it's about access and while [access] may not make you richer, but it sure could impact you into a state of poverty or less opportunities. I hope I answered your question appropriately.

[Abdul: One of the things I think about when I think about the crisis of imagination is memory which gets {to some} points about local history. Right now in this community there is a great crisis from an incident that took place where a young 15 year old young brother who was killed in an incident with the police and there was a meeting at the Champaign City Council which is really a curious thing because having these kinds of issues appear in most cities. But I found it really curious that in real time, on television, there was a four hour tv program in the city council chambers. I can't imagine how many cities in the United States would actually have on tv four hours of the community stepping forward saying whatever they had to say. I think everyone here ought to understand those tv programs where you see the city council or some commission meeting they are often god-awful boring, the point is that there are moments when democracy is required and that format suddenly – you are living in a very unique place in other words and you should all take advantage of it because you are going to go to some other cities that is not going to be unique in the sense that people are not going to have access to that technology. I guess that what I'm saying here is to raise the question – how can this technology the spread of it in peoples homes and, more importantly, the spread of it in community organizations and churches, and community centers and so on. (even branch libraries, beauty parlors, and barber shops) how can this technology help a community deal with a crisis like this. Deal with issues that come up. We've had Katrina, We've had Jena Louisiana, we have this economic crisis in the country generally, the question is how can investment in this technology help the community be able to move forward in a reasonable way]

I think it can help in several different ways. I don't do blogging, but I have my assistant monitoring the blogs in relation to the event. Once again, that doesn't put any money into anyones pocket though, but it does allow people to voice their concerns. I think it's like any other tool and it's how it's applied and how it's utilized and how its leveraged. Many things that have been designed for good have been used for evil purposes. You start talking about paradigm shifts and it's so hard to break out of the status quo because you know where that will get you and you know what that return will be and it's hard to sometimes think of new and innovative things outside of that. I can't give you a pinpoint

response but those are the challenges of how do you deal with these matters on a daily basis. Just using your reference point about this incident in this community – there is a tragedy before us, but there is an opportunity before us. Which one are we going to seize. We are normally creatures that take the easiest path and it's always easier to have a response to have an outburst. How do you adjust your tactical plan

Appendix H

October 29

Maria Mobasseri and Brian Bell – DCEO Grant Coordinator and PT Instructor

Solutions the Community College and the Community Technology Center

Maria Mobasseri

Intro: She is currently the department chair in computer science and information technology at Parkland College and has been with Parkland since 1997. She is also a certified networking engineer and has led as project manager for various NSF, Ameritech, and DCEO grants including a project to provide access to computers and computer training to underprivileged Don Moyer Boys and Girl club members. A project devoted to recruiting and retention of underrepresented groups in computer science and a DCEO funded Grant titled bridging the digital divide.

Brian Bell

Intro: Is DCEO grant coordinator and faculty member in the computer science and information technology department at Parkland College. He earned a degree in law enforcement and security from Southern Illinois University at Carbondale and currently operates Illinois Worknet Center at Parkland College which services the unemployed and computer and technology center. Previously he worked with the Don Moyers Boys and Girls clubs [makes a connection to the last speaker] developing and teaching a curriculum for youth and worked at crossroads community church developing curriculum at the middle school level. He also developed and coordinated the community technology center with the Urban League in Champaign-Urbana and he will act as education director for the Urbana Champaign Big Broadband initiative and is currently the DCEO Grant coordinator at Parkland College.

Brian Bell: When I got the email regarding the bridging the digital divide I had to ask myself 'What's my definition of digital divide and what I see everyday'. So there are different types of digital divides. We have access to education and training, access to physical equipment, access to the global network, access to internet, and access to broadband internet speeds. There are subcategories race, region, and level of education. So I tell my students at Mattis [Mattis Ave. is the street that the WorkNet center is located] that the digital divide is what happened to you while you were at work. So the digital divide, and my example of that is the population that I deal with based upon where I'm at [which is] the unemployment center who are unemployed. So they are going back into the workforce. While they are working, paying their taxes, and being a good citizen

the standard level of computer education and computer literacy has risen from they had Windows 98 to Windows 7 or applications or hardware. Things have changed over time. So when they get back to the workforce there is that gap.

There is a big picture, there is a global digital divide. You would see that computers per 100 people the North Americas and Europe it looks pretty good and looks like most people have computers. But when we examine further that based upon the statistics of my class participants. It's roughly 17 to 20 percent of people who have a computer in their home just access to a machine itself. So it doesn't look that good when we examine it further. Another part of the digital divide and it's another big problem is speed. The United States for download speed which is accessing just basic things on the Internet, we are number 29 in the world. So the United States, in of itself, is in a digital divide. And our upload speed is even worse. So we have to ask ourselves why are these numbers so low. Why is the United States number 29 and 31 in the world when it comes down to accessing data on the Internet. That's not good – I mean Moldova is faster than us. So when we look at the United States, Illinois – we are not even on the map or top ten looks like the east coast is doing pretty well. If we look at the state of Illinois, luckily Urbana is number one in the state, and that is only because of the University of Illinois and the backbone of fiberoptics. Anyone outside of this campus you are competing with the rest of the developing world when it comes to Internet speed and that's my office at Parkland.

Those of you who are not familiar with download and upload speeds why that's important, put it this way. How would your life be if you had to go back to dial up? What could you get done, you can get nothing done can you? Download an email, go eat, use the bathroom, come back and the email would still be downloading. So the 1.57 megabytes per second there is roughly 8 bits in a byte so there is one megabyte per second so a 10 megabyte file will take you ten seconds, but now files are 300 megabytes, 400 megabytes and that bandwidth fluctuates. So it can take you an hour to download something that is 300 megabytes. But here [at the U of I] and the rest of the world it's faster. So what I'm going to do is turn it over to Maria and she is going to talk about not just my big picture that we are going to get back to more specifically but she is going to talk about the grants that she has worked on and stuff and the DCEO and so here's Maria. Approx 8:00:00

Maria Mobasseri: Thanks for inviting me Dr. Williams. My goal here for the next 20 minutes, and give me the 15 minute cut, is to let you know what kind of activities we have done when it comes to digital divide and with what populations we have worked with. In general, as you said community colleges have are very much application based and very much down to the ground in that is what we are famous for. We identify the population who needs certain types of education and we try to recruit among those populations and given [people] the knowledge and experience and the skills so that they can be employable and can find jobs or transfer to universities. One of the areas for

digital divide is really among females, and that sits really close with me as a female as I started my electrical engineering degree, I suffered a lot because of that digital divide that exists among my gender and I had to fight a lot and I had a lot of barriers to overcome and to be able to get my degree. So obviously that is one of my passions when I started looking around to see how I can accommodate this path for other females who are interested in the IT. IT meaning Information Technology. I started looking around to see what are the statistics, what is the reasons why females are not interested or why we are so underrepresented when it comes to the computer science field or information technology.

NSF is actually is an organization where we partner up with the University of Illinois and five other universities and colleges about six years ago. We got funding to start looking at the population of female and minorities in the community in the computer science field and to find out what's the reason why we are so underrepresented. So that was our task. We started to look at some statistics about females and it was disturbing to know that while a high percentage of females took the ACTS, took the advanced placement tests, and were really good at calculating math, yet when it came to percentage of females in the workforce we are amazingly underrepresented. You are going from 56 percent of the female students who are taking AP tests all the way down to only 19 percentages of females who are pursuing education in the field of IT and/or any CS (computer science). If you are looking at being female and from a different type of culture, whether those are African American female, Asian female, Hispanic numbers are even more disturbing. You are looking at total of 27 percent of computer science people are female, but only 3 percent of females are African American or Asian or Hispanic. Then when you are looking at corporate field and higher many of those females are holding managerial positions that is only about 16 percent. We are doing a little better in holding IT jobs but what is really not good news is that we have actually gone down since 1990. Mid 1990 the percentage of the females in the computer science field was slightly higher than right now.

So we started looking at okay we know that stats but what's the problem what's happening. What are the challenges? We know that we don't have enough female students in the field and when we starting looking a little more in depth and we looked at the research that different universities and grad students like yourselves have conducted we found out that there is very little interest amongst female students in computer science. There's not enough knowledge of what IT is, what computer science is, female students do not know what is out there in terms of computer science. We also found out that the regular normal recruiting that we conduct to recruit students in general to come to community colleges or to pursue their education after high school is not working when it comes to female and minority students. The biggest problem, of course is, and has been, that we have very few role models. We don't have enough African American, female

role models out there in the classrooms. Out there in the industry to support, to mentor, and to represent their gender, their culture, however you want to name or label those.

Some of this information we acquired as a result of looking at research. But some other we actually have firsthand experience it. Systemic issues we found out that kindergarten through 12th grade there is very little exposure to computers and technology. In kindergarten throughout elementary school there are very few schools that have access to IT. Yet, that is getting better but we still have a lot of problems. I worked with Kenwood elementary school and they had one lab that Peter Fox Corporation had donated to them, but they did not have anyone, any IT person to maintain the lab. So they had 24 computers and five computers died and they were not working and there was no one fixing it and the staff did not know how to maintain or fix the equipment. So computers just sat there doing nothing the technology was there but not being used. So there is a lack of information a lack of exposure as a result of that to the students. At the same time you go up to the middle schools there is very little and when you talk about basic science – it's mostly math and biology and social sciences. Computers are like on the side and keyboarding is the extent of what people actually do.

You move to high school and most anyone does is keyboarding and some computer applications and that is not where you can see females. When I dug a little bit more into it I realized that counselors and advisors had actually advising more of the female students to go into other fields than IT. If they encouraged the female students to go into information technology it was the office professional, the secretary positions that they thought a female could handle. The male students were more kind of driven and guided to more of the information technology and computer science field. So the curriculum is weak, the access is not as much, and we have recruitment issues and guidance and advisory issues from K-12. Then you come to higher education and you are looking at universities and universities are very much theoretical and theory based and community colleges are a lot more application based. To find that fine balance of how much theory and how much application you want to combine and teach your students to keep them engaged and interested is pretty tough and we are good at one or the other and we are trying to put together ways to collaborate to provide that good educational learning environment for the students.

Lack of confidence among women because of the history they have K thru 12. They are not confident therefore it is out of their comfort zone so they don't choose a field where they can flourish or they don't have that confidence. And of course lack of numbers in role models again. [I'm going to focus on where I did most of our NSF work] So what we started doing now that we had the stats, we had the facts, we started by creating a non-threatening teaching environment for high school female students. We recruited female faculty we made sure that we have successful female faculty that can approach the teaching from all levels and can provide that comfortable environment for the students

and we started offering free workshops in the summertime for high school students in hardware and software. We realized that a lot of the female students at the high school level do not like to work with hardware. They are very uncomfortable but once we open the door and there were no male students around to intimidate them, nothing against the male counterparts, but that is how it is out there. They actually opened up and they started touching the equipment and starting looking at them and making notes of what's what and they understood that they have the intelligence, and they started building that confidence. At the end of programs, at the end of the workshops we did a survey to see whether their interests have been triggered towards maybe pursuing something in IT. The results were that they still were like no we still wanted to go into nursing, I still want to become a lawyer or a doctor, or a teacher, or a secretary I'm not really interested in hardware. So we dug a little into it and realized that maybe we were approaching them after they had already actually made up their minds.

So in order to reach them we decided that we are going to go ahead and start at an earlier age. Lets go ahead and offer workshops at middle school level. Bingo! That was the right place for us we realized at that age students are so unbiased and still pure, in terms of thinking about, they haven't made up their minds, they don't know what's really out there and they are open, their minds are open to accept whats out there in terms of career, education, and all that. So we had a lot of success with teaching that age group of students at the hardware and software and the results of the surveys were a lot more successful , and better, and promising in terms of the fact that they will be pursuing or considering pursuing something in the field of IT. So that was a success from our point of view.

So we started creating some contests, we started doing some open houses. We have middle school and high school open houses a lot of those open houses we are creating them and starting them as a result of the studies we did with the NSF. We invite all of the male and female students to come to Parkland. We do offer workshops and it's an all day event. We do a fall high school open house and a middle school open house is in the spring semester. We go to visits to high schools, we do college visits, and we do have an information kick-off where we bring parents into the picture. Because we realize that when parents are not involved and counselors are the only guidance/advisors to the students we are still missing a big part of what influences a decision that the students are making towards what they pursue. So we involve parents as well. We put together a women's club, which didn't work very well, because women did not want to isolate themselves. In the beginning it was okay because they were all kind of involved and competing and nationwide they competed and brought about ten thousand dollars worth of money and resources into the club. They established a scholarship for females who are in underrepresented areas of IT and that is basically every area except for office professional which is again, secretarial positions. So these are some of the ways that we

try to recruit in general but we do a little bit more focus on recruiting when it comes to females and minorities and, in a minute, Brian will actually go into minority, I covered part of what we have done for the female students.

Then we figured out okay we bring in and recruit women is that the end, is that it. Are we helping them to pursue their education or are we done. We realized that is not it we are not done we are losing them. We get them, they come in, they start but if you don't provide them with the support system that they need at the college level we start losing them. Whether you are talking minority African American/Hispanic students , Asian students, or female students. So we started focusing on how we can put study groups, focus groups, building a community for them, and building a mentoring program, building a retention program where we can keep them and retain them once they start their studies. One of the recent projects that Brian is also involved in that we are hoping to be able to keep our retention up, because we are getting about 50/60 percent minorities and we are getting about 30/40 percent females into our field. In order to keep them in place and to have them graduate successfully we need to retain them. How do we keep them retained?

We have put a program together where we don't just provide them with advising we, we don't just provide them with a guide and a map on what classes do you take and where to get financial aid or whatnot, but now we take it to the next level. We have someone actually who takes interest in their lives, takes interest in the barriers that they may have in their lives towards their education. We personally call them, Brian calls them and brings them into the office and says 'Hey I hear you are not attending the class. What's up' so they can explain what the problems are, the barriers are at school or external, it could be they are having problems with the criminal justice department, it could be that it's child care, it could be financial, it could be anything and what Brians role is to identify what the problems are and since he knows, based on his experience with the urban league, with Don Moyer Boys and Girls club, and with a lot of the different community entities, he knows the support system in the community. He knows the support system, also, out at Parkland. So he takes their hands and he puts them in touch with the right entity. That is not where he stops he not only puts them in touch, but he follows up, he calls them and he says 'did you get it done, where are you right now.'

When students realize that we actually take so much interest in their success and we care they start caring just as much and they actually get more energized towards their goal. The departmental model that we have right now towards educating people that come to our department at Parkland is, I talked about recruiting, we bring them early on to the workshops and expose them to the technology. We have a one hour course we bring them in and we talk about different fields, we make sure that they get into the right field that they will be successful in the field they are choosing, we assign them faculty/staff mentors, we do the retention program, we try to retain them through that particular

program and, at the end of their program, they either choose to enter the work force or transfer to a four year institution. We have got agreements with almost every state university in the state of Illinois for all of our programs and once they become alums we bring them back as either mentors or guest speakers so we kind of close the loop that way. We don't let them disappear.

In the past four years we have had a total of, this piece is specifically for Abdul because he came to my office one day and he said, 'I'm going to need for you to provide me with the workforce for all of these technology centers I'm going to create, do you have enough students for me'. I said well I think I do but let me look at the numbers. So I went back and I looked. In the past four years we have had 130 of our students. We have had about a thousand students duplicated in our head counts; we had about 600 students unduplicated who are taking a certain program with us. We have about 130 students that we have graduated. We have graduated and an internship is something that they do at the end of their program. That is roughly around 33 students a year that we have out there. So I believe we will be able to provide Abdul with the number of the students, or the workers, or the employees that he is looking for. This is a list of some of the companies that later on I know you have access to the PowerPoint so you may want to take a look at the how many local companies we have who are students are working at. These are the places that we have collaborated, that we have partnered up, these are our partners. I am done and, at this point, I am going to turn it over to Brian, because we hired Brian to work on another grant which is called 'Bridging the Digital Divide Gap'. He is going to talk about that because he is the key man who took the whole program, developed models, put the curriculum together, and worked with all the students some of them are here I see and helped this population and this is a different population that he is going to talk about today. Also kind of come up with understanding what the technology is and have access to the technology, and move forward. It's all yours.

Brian Bell: D.C.E.O. – there was a grant that was sponsored by Parkland College and the Urban League when it was open, collaborated and wrote a grant to the state of Illinois called Bridging the Digital Divide and that is through the Illinois Department of Commerce and Economic Opportunity. So we were awarded that grant in the fall of 2008, the urban league subsequently closed, so they moved the grant to Parkland which absorbed the grant. We moved the lab to the unemployment center on Mattis. So my population at that time [when the lab was located in the former urban league] was 100 percent minority from walking distance to the urban league. We moved to the unemployment center so my population is people who are unemployed because that is what we are marketing from. That is where my students come from. Each public computing center or community technology center is all based upon where you are at in the community. That is where your target audience is going to be.

Each target audience has its own definition of digital divide. So the digital divide to people who are unemployed is 'I need these skills to get back to work, what do I need to get back to work' and I give them what they need because I talk to the employers and ask them what do you want and what don't you have and I try to bridge that gap. Who are our clients again, our location is 1307 Mattis. From my understanding, I'm not from around here, but it was the old K's Merchandise building, then the state had the building, then Parkland bought it from the state and leased it out back to the state of Illinois. There are four departments in that building, actually around five or six. There is Parkland building/construction and health services. There is the Champaign Consortium, which has the unemployment center, the Illinois worknet center, disability and rehab services, and I think that is about it. That is about all that is in the building. So my customers, my clients basically are over 40, unemployed, and 50/50 male/female right now, 50/50 minority and non minority, and 70 percent of them do not have a computer or Internet access at home. Some of my clients or class participants don't have internet access at all they only have access to dial up. There is no Comcast or anything and we are talking just 20 minutes out of town.

Our partners, while we were at the Urban League, and during the down time it took about four months to transfer the money politics, the state money [from the grant]. During those four months we were kind of 'what do we do' and I said 'well we have a bunch of computers we could fix up and donate to people who don't have computers at all so let's do that during our down time. Let's find some volunteers from Parkland or in the community. Let's take some rehab computers and fix them up and give them to people who don't have computers at all'. So it started off with the city of Champaign who gave us a bunch of old machines, and then I get a phone call from the Champaign public library, the brand new library, all of the computers they had before that, they all came to me, because they said we are hearing you are doing good things. Very big, that was my first big shipment, before I had like five or ten. Then the library called me with 'we have 35 computers, you need monitors, you need printers, you need projectors, yeah we got it all bring it on.' So big truckloads of stuff came.

Parkland donates us with time so if I need help with setting up domains or sophisticated networking they will bring over some experts and help me with that. DCEO, they supply the money. Baltimore Air Coil, a manufacturing company in Paxton, they closed [and] they had 35 computers. Actually, one of my students had worked at Baltimore Air Coil, she was unemployed she said 'my company just closed let me make a phone call' so the vice president came out to Mattis, saw what we were doing, liked what we were doing , and he gave us a shipment of machines. Microsoft also was involved , Microsoft has recently given the federal government training vouchers and certification vouchers for mcast and mos. Those are Microsoft certifications. They gave the federal government hundreds of thousands of these vouchers basically coupons to get certified in word to

help bridge the digital divide to help push America and bridge that gap between what they are doing in Japan, China, and South America versus what we are doing here. So the federal government gets into the state of Illinois, the state of Illinois gives their vouchers to the distribution networks of Illinois work net centers. In the Illinois work net centers was the digital divide. So I give the vouchers to anyone in the public or my students so they can train using Microsoft products.

My latest and greatest was Volition, it's a gaming company in town. Any of you guys know about Volition they make Saints Row, and Red Faction. These are big big big games. Imagine their computers. They donated 70 machines, 70 gaming machines, nice. I emailed him and asked what are the specs and I was like 'what you are giving me those' bring it on. Guy pulls up in a van full of computers, unfortunately they closed down one of their beta testing divisions, where all the people just sit around and play games all day for ten dollars an hour and so all of the machines came to me.

So this is just an illustration of a class, again we have a modern high tech lab, we used money from DCEO to buy brand new machines, brand new monitors, brand new keyboards, mice. We have a brand new state of the art lab. So once we moved the lab we had to do more recruiting for a different clientele. Again, once we moved from the Urban League I didn't have one person, I probably had two hundred class participants at the Urban League, and not one moved when I moved to Mattis. Not one, because they are not going to go where they are not comfortable. They are only going to go to the CTC that they feel comfortable in. That is theirs that is in their area. So I didn't get any of them to move over. We even tried to give away bus tokens for them to get over there or offered to pick them up, but it didn't work.

The digital divide was for education and training and it really didn't have anything to do with giving computers away to the public. So I have to kind of split my time and volunteer myself to this project. They are not paying for this. This is just me going off and doing my own thing with her [Maria's] permission and she is like "Be Careful" because there are some things that can happen while doing that. I have to indemnify Parkland which means I have to hold Parkland harmless when you give someone a computer and promise nothing when you give them a computer, right. I'm like 'hey I'm giving you a free computer don't call me up and here is a contract. We don't supply support, we supply equipment and training to use that equipment. We also indemnify the companies that donate the machines. So they donate a bunch of machines, they write them off on their taxes and they may have to call Dell to get them out of their service tag territory so it's like a lot of legal stuff that makes sure that when they give me the machines, that they are not on E-Bay or a pawn shop, or sitting in the street. The chain of command goes from them to me to the customer and I keep track of all that. That way people feel safe. Luckily we had storage at the unemployment center in the back and that is our receiving.

We have volunteers like Dan who actually comes over to Mattis, spends about an hour, he clones a machine or two, because every single machine is identical. We clone them, we ghost them, and then we donate them to people who need them. Who we help here are pictures of people who are in our class who have very basic beginner skill levels or no skill levels at all when they first started and it originally was you come to my class and after eight weeks a free computer. So that way you don't give them a computer that they don't know how to use. You make them stay eight weeks and then you get the machine that way you will know what it is they are getting and you don't have to call me with questions like 'how to set up the screen saver' you know all that stuff and how we help.

Classroom style and one on one instruction: When you are dealing with a CTC people with various levels of knowledge. I deal with people like a truck driver, he's been in the truck for 30 years, he is temporarily laid off, he has never seen a mouse before, he does not have the whole physical hand eye coordination. Doesn't know anything about a keyboard. Then you'll have someone who knows how to do email, surfing on the internet all the time, and they are downloading music. How do you teach those two people at the same time? How do you do that? Because if I go off talking about email then [the email user] will get bored and leave. So each day my class is modular, each day we work on something different that everyone will have interest in no matter what skill level they are in. So each day it's something different. If I go in a progressive state, again my class is open entry/open exit, you don't have to come. You can come and go, come late, it doesn't matter. I mean you can't force anybody to be there. So they can come on Mondays or just come on Tuesday s or skip Tuesdays and come on Thursday. If I had a class that went secular it would just, again they would be behind and they would lose interest. So each day it's something different and it's fun. I try to make it fun.

My goal is to move the clients into the future with a knowledge of OS, hardware, and applications. From the last computer they may have used to the computer that is coming out next month. If you are in a digital divide we can't talk about Windows 98 or XP or what Bill Gates did back then. We need to go like ducks walking across the street, you got slow ducks then you need to hurry up 'cause there is something we got stuff to do. Let's go now, let's get you into the future, into 2009 2010 so you can stay there and let's keep it moving. Because if they are behind they are always going to be behind here's you guys and here's the people in the digital divide. Well we are all in the digital divide because there is stuff that is coming out tomorrow that we don't know about. We are in a divide, but not as far as some people. So there are different levels. Again, we bridge the gap by bringing them up to speed and give them the tools to keep that speed. So once I get them there you have to give them the tools so they don't fall behind then.

What they learned. I go over basic hardware. I explain there are two types of computers. Two types of physical machines you can buy. It's a PC or a Mac. That's it and what they look like physically. Then we go over the operating systems. We run the lab in XP

because most people, even if they have seen a computer before, or maybe they have an old one at home it's probably XP or Windows 2000 so we run the lab on there, but we teach them seven (Windows 7) and forget vista. Because two years from now, why teach them something that won't be around. Get them to seven and linux because that is where it's going open source. If you don't know that is the world spinning that way. And applications, we go over types of applications, embedded, portable, online, virtual and within. Why talk about Microsoft Office when the Federal government just said Word, they lost in court, they can't sell word anymore. So everything is now Open Office, portable, online applications, virtual applications, thin applications, and the new cloud. So in my class we talk about embedded applications as a thing of the past it's either online with google docs or Microsoft live and we talke about virtuals, thins, and portables. Eventually we get to new cloud because that is the future.

So some of my customers, right, the first computer. The computer that just came out the new net-tops. That's the new computer not the big towers, that stuff is from the 80's. That is the new computer that just came out. We were talking about this a month ago. This is what's coming BOOM hit the stores. So you got to learn about that new form. It's like I don't have these to give away. They know that they exist but with the machines that I give them they can perform the tasks, the applications tasks, the operating tasks, they know a little bit about Linux and seven and xp and they know these things exist. So there is our human evolution. Our two students have very little PC skills and after eight weeks ten hours I don't know months, they been there a while. Anyway, like I told you some people come in with very little or no computer skills and wonder how long is this going to take, how long do I have to stay. First – stay forever and come every day. What do you mean how long do you got to stay. 20 years give me 20. If you don't know what a computer is then how can I get you – you can't just timeline everything . Just come every day you will learn something every day.

From very basic skills to actually passing a certification of completion through Microsofts elevate America. [Students with varying levels of experience] after 8-10-12 weeks are good to go online by themselves, enter in a code for Microsoft, go to a website, take these online tests, and actually pass and get a certificate. All of that is done with no money coming from them and at no cost to them. I think that's it…any questions. I have the two students here if you have any questions for them.

Q: You say that every computer you give away is a clone what software packages do you use on them?

A: Right now I'm using XP because I have a license for XP. I'm reusing the license that is on the machines. However there is a theme in XP called 'easy view' it just came out like two days ago. So we are changing where the links point to. The desktop layout it's a theme it looks like the one laptop per child. It's just five big buttons you know internet

and work and that is how it looks. But the engine is XP and I'm going to use that as my desktop for kids. So my machines are cloned. It's XP with an administrative account, with an 18 plus account, and there is a childrens account with easy view. All of that is locked down with a steady state or mandatory profile. So no one can go into the machine or the registry and accidently delete something. So every machine I have given away is still running because they can't break it. They try to delete something or download limewire, as soon as they reboot, it goes back to fresh. So that is how you got to do it.

I've learned from this I'm telling you. I've donated machines to some people with XP on it and, actually it was linux, because I knew they couldn't break it. They put XP on it without telling me. They are just 'well we didn't know so we put XP on it' an open fresh XP. Teenagers got to it one weekend and later its dead. Master boot virus and I said okay…if you are going to play that way then we are going to set it up to where you can't make any changes. I will give you the machine. There is an administrative password, but I only give it to a responsible person because kids may get to the machine. If kids get ahold of it then it's Facebook, MySpace, or LimeWire. Via Facebook and MySpace people are getting viruses and destroying the machines.

Q: So you said you couldn't get any of the students you were previously teaching from the Urban League to come to the Parkland center. Are these Parkland students now who are enrolled or is it a community outreach program?

A: At Mattis they are not Parkland students. It's open to anyone in the county. Anyone can come there for free any day. [Interjects Maria] The goal is to get them to Parkland that is our hidden agenda. That is why I wrote the grant that is why I participated. [Back to Brian] It's been working we've enrolled students. The backdrop is I am an instructor out at Parkland I teach at Parkland I teach the beginner hardware class. CIS137 it's like a pre-network class and I've been recruiting from here, I've recruited 17 students from Mattis. So far Parkland has raised their enrollments and I got more people in my class. I've actually added a whole section because of this. So I'm teaching more and it's pretty cool.

Q: How did your techniques change as you went to Mattis?

A: We sat down and we were like this is not going to work because we had no one in class. What do we do? I said listen this is where we are they say do what the natives do when you are in their land. We are in the unemployment building let's just work with unemployed people. There's millions of them. There are a lot of unemployed people lets figure out what they need and unemployed people need what? They need jobs. They got bills to pay. What do they need to get those jobs? So when a student comes to my class and they are unemployed, because most of them are unemployed, I know what they need. One you need a resume, a new one, and not in Word Perfect or Word 2003. I explain to

them what they need, what employers want. [Employers want] 07, PDF, HTML that is what employers need. Walgreens corporate is all open office. Everyone is moving to open office so if you keep holding onto word and using that for your resume and they say send it in open office format then you need to know what that is if you want a job. If they say send the resume in a PDF and you don't know what that is and you send in a DOC when they try to open it they will go NEXT and go on to the next resume. I had a student say 'I have a resume' and I said send it to me. She sent it to me and I tried to open it, Word Perfect, I couldn't even open it. I asked her what if I was an employer I'm going to go next. That is not a resume. So have all those formats ready and in Google Docs. On a flash drive and all online. So I give them all this stuff that they need for the future.

Maria: You asked about the curriculum. One of the conditions he had to meet in a curriculum, now that he was dealing with a different population, was he had to first keep them interested. So he started with what is it you need? We do have a curriculum at multiple levels. We have basic, we have core, we have intermediate to advanced. . .the curriculum is the same, has always been the same back when we [worked with] the Don Moyer Boys and Girls Club, in terms of the modularization and the topics and the contents that we covered. But he had to first get them interested because that is one of the challenges.

Brian: So once we got their resumes kind of tight and they understand what it is, how to change from office to ODF to PDF and HTML. Then we just moved on with the regular curriculum. But we got that out of the way – this is what you need to start looking for a job. This is how you do it with all of the other educational stuff that you need to do. If it takes two to three weeks you got to get that resume right. Meanwhile they learn how to create files and folders. They are still learning. You just don't open and do a resume you still learn all the things it takes to make a resume. Then from there they have to get an email account. [I ask students] do you have an email account [and the response is] no. You gotta get an email account.

Maria: The curriculum is designed as a precursor to actual course work. It's designed in a systematic way. It's not put together haphazardly. We make sure that once they go through that then they and come and survive in [classes at Parkland].

Brian: I have to think to myself: If I'm recruiting this person to be a student out at Parkland then what are they going to need to survive my class?

Q: What are other projects beside resumes that you do?

A: Projects? We do hardware we teach basic networking or simple file sharing which is becoming very very important with these new machines. With the new Net Tops it's all about networking and so they are wireless and they don't have optical drives. That is just a project of simple file sharing. That one machine doesn't have an alpha drive and you

have a CD Rom with a game or something. How do you play a CD on that if it doesn't have an optical drive? What do you do? So I teach them how to do that. You put the CD in another computer and do simple file sharing then you can share that optical drive with another computer. It gets even worse because the actual machine with the optical drive in it can be in China. It doesn't matter where the optical drive is, if you are linked to it on the network and if UC2B gets some of that money speed won't never be a problem you can do simple file sharing with a machine on Mars.

Q: How do you keep students who have to have that kind of intuition with computers when they come across something that you haven't taught them about? They kind of have to have a sense of what to do and how to do it? I mean that kind of thing is really hard to teach because I remember trying to teach my grandma how to use word. I would have to write down steps and she would follow the steps and when she came across something she didn't know she would call me. So how do you prepare students to handle that stuff?

A: I approach that two different ways. I create users guides and sometimes I make them create users guides. How to create a user guide and user account that grandma can understand. When they go through that 70 percent of what you retain is by teaching so if they are teaching someone else how to do something. So as soon as I get a student up to where they can set up an email then I have that student teach other students how to set up an email. That is one way.

The second way is: I see it where students are doing things and they freeze up. Either I'm maybe moving too fast or they are afraid to click the button. They are afraid to just hit the next what do I do now. If it says next just do next. I try to get them past the fear to just slow down and just read.

Maria: That comes from building confidence. [sometimes people are afraid of clicking the button due to fear of breaking something] I've seen seniors start out not knowing anything about computers to building systems. So that is a huge improvement.

Q: What is the turnover ratio for students in your class? Before and after giving out computers.

A: It's more of a how I feel they have progressed. What do I say when a student first comes in? Do you have a computer at home? That is the first thing I ask. If they say no then okay they need a lot of work. Now if they know how to do email and some things then I say hang out for a few weeks and I will show you how to make a computer and you can take that guy home. Then there is the- I don't have a computer at home and I don't know what a mouse is. I'm not just going to give them a computer it's going to be 8 to 10 weeks or how long that I think they are good enough to take it home. Students take a computer home and then they come back to class and they have significantly jumped by taking it home and playing with it all night long. [Talks about a couple of people who

started out with no skills and who now come back to volunteer and furth}er volunteer efforts with Spanish Speaking communities]

[Two of Brians students talks about learning something new everyday in his class – One students learns in spite of a learning disability and other disadvantages. Brian points out that we are all in some type of divide]

Brian: The people who come to this class they often leave because they are working. I don't know what it is but if you come to class you will get a job.

Q: I'm really interested because I used to work as a case manager for Illinois work net up in Chicago. It sounds different than the places I worked at in Chicago where the only long term in house class was in basic math skills and that is part of the way the workforce investment act. {refers to reading, writing, assessment skills tests given} Then there is pressure to get someone a job right away otherwise you have to track them for six months before you can replace them…so my question is – is this funded by the workforce investment act?

Maria: That is a good question and you just pushed my hot button because we applied for a grant and it's really sad that the local office here does not believe in technology. We wrote a grant proposal and we had to do the program and the technology altogether. When you come in you can get your GED and, at the same time, you get your IT training and we didn't get the funding because of the IT part. They only approved the GED portion which is really sad. Somehow our local office does not believe there are local jobs in the community therefore they don't provide any funds to the students who are interested in IT. So I get a lot of students who come to me for advice and tell me that they are only given money to do 20 hours of coursework. But what can you do with 20 hours. So that is a battle that goes on between use and Mr. Anderson there. I hope that one day he will take a look at the stats and now it's on record. I don't know how the other offices do that but it's a real challenge for us. . .the original grant [that was through the Urban League was geared towards a different population] out of work and out of school, [and modifications had to be made with changes in population]

Brian: [talks about how the GED lab is next to the computer lab at worknet and how one of the goals of the broadband initiative is to improve computer literacy] Standardized like your drivers license and supposedly your high school diploma which is the same in New York and California. Your drivers license is the same as in New York and California. What that means is in California you have taken a drivers license test [in NY] that meets their standards. So there is an underground layer of we need to get America to a point of standardization when it comes down to computer literacy. We can't just keep letting all of our high school kids get out of high school , who don't know what email is, or what an

application is, or how to surf the Internet or whatever. So there needs to be a standard and what we are trying to do that with WIA [Workforce Investment Act]

[When asked about what would happen if the UC2B grant passes what he would do Brian commented that it depends on where the training takes place. For instance, a public housing complex like Joanne Dorsey homes might have a lab set up for kids so the curriculum would be set up with kids in mind with people who are able to work with kids doing the teaching. Brian acknowledged that working with kids is not a strength of his. Each lab, be it in a high school, or in a residential housing sector would be modular and be staffed by individuals with the help of Parkland College]

Appendix I

November 5, 2009

Peter Folk Co-Founder and President Volo Broadband

Volo Broadband and the Digital Divide

Abdul: Today we are taking a slightly different shift. For the most part we have discussed up to now theoretical ideas and methodological ideas. We've spent a lot of time talking to people who represent government agencies and non-profits. This is a sector of society that is responding really to the private sector and balancing out the availability and the utility of digital tools. But today, what we are talking about is essentially the category of entrepreneurship. A lot of times when we think of the organization of the economy, when it comes to digital tools we think of the large telecoms and yet, at the same time, their business models don't cover every aspect of society. So in every local community there are entrepreneurs that, in effect, are developing business models that carefully articulate with local needs. In other words, there are always these two different aspects of the economy. The big structures and then the smaller structures that are more responsive to immediate local needs. That's what we are going to hear about today. An entrepreneur that has been developing capacity for our community and has, in fact, provided services for agencies that we have talked to thus far, the library and so forth and many people in the community have access through these kinds of local entrepreneurs. So this is an interesting and unique presentation today. So I want you to think of it in that different way. That we are talking now to the private sector. So it's very exciting because if we go into the local communities, rural communities, small towns, etcetera. Small entrepreneurial interests are the only way that people are getting connected so it's very important to include this in the overall thinking on how the economy is organized. As is our usual practice a classmate will introduce the speaker today.

Introduction: Good morning professors, colleagues, classmates, ladies and gentlemen. Today we continue with the digital divide series. I have the honor and pleasure of introducing you to today's guest. An individual who anticipates playing a significant role in narrowing the digital divide right here in his adopted home town. He is CEO and cofounder of Volo Broadband. He is a product of the Midwest. He was born in Des Moines Iowa, though he graduated from the pre-eminent high school here in Champaign-Urbana Uni-High. He then attended and graduated from Reed College in Portland Oregon where he minored in philosophy. His concentration at both the graduate and undergraduate level was in mathematics yet it seems like his favorite numbers were zeros and ones. Even before attending Reed he was a well versed in computer science he founded two technology –based companies and worked as a software consultant on the west coast where he designed and implemented software for manipulation and the study

of the [gelwa?] group. Additionally he performed significant and novel research on network designs for immersive environments which he would soon have occasion to implement in the very near future. While out west he designed and implemented wired and wireless network cards drivers for BOS and created user LAN software to manage access. He brought all of his early experiences, copious knowledge and creativity back to the Midwest where he designed and deployed a first fiber café hotspot in Central Illinois. The espresso café right here on the southeast corner of Oregon and Goodwin in Urbana . . .[he built and managed a remote customer service wirelessly]. In January 2002 Mr. Folk and a friend co-founded Volo Broadband to provide an alternative to the restrictive service offerings, terrible customer service, and high price high speed internet access available in Champaign/Urbana area. The company has been continually growing since its inception in 2003 and has been profitable since 2003. Mr. Folk has won major corporate, governmental, and residential contracts. [He has a team of technical/sales staff for daily operations]. Mr. Folk designed and deployed a wireless network that was two to three times faster than the cable infrastructure when it was first deployed in Champaign/Urbana. Additionally he sought funding to bootstrap a local internet service provider business. The company is supported by a loyal customer base that has been consistent in both good and bad economic climates. [He is able to be competitive with Comcast, and AT&T. He is involved with UC2B and the BAC]

Peter Folk: I'm not used to giving a presentation that is not from my own system. I'm Peter Folk that was a great introduction, thanks a lot, the thing that I especially liked about it is I seemed to get credit for co-founding Volo like four times and that is a pretty accurate representation of how I spend my time. There is an old joke about entrepreneurs, the great thing about being an entrepreneur is you can only work half time if you want and you can choose which 84 hours of the week you want to work. That's pretty much my life these days and for the last seven years. I want to give you a quick overview of what I'm going to do here. Talk a little bit about me. Abdul asked me to talk about how wireless works and how Volo specifically does wireless. Then I want to talk about the federal stimulus package and the digital divide and how those two are interacting. Specifically how Volo has asked the Federal government to take what approach we have asked them to take and then you can pepper me with questions and we can go from there.

Just a little bit about Volo. Pretty much, Derek [in the intro], handled much of it. We are a local ISP; we try to be at least on par with cable and DSL. Sometimes we can be faster, sometimes we are not available, but for the most part our goal is to be competitive with the offerings here in town and to cover a somewhat larger area. We try to have a price that is fair and doesn't discriminate against small companies, large companies, individuals and families. We try to make sure that our system is easier to use than the normal cable and DSL systems. For example, we make sure that everyone has a firewall

because a lot of people don't have the technical expertise to deploy those things on their own. That just makes their own experience all that much more consistent and reasonable. We've also, from the beginning, have been very community oriented. One of the values of being a small entrepreneur is that you actually get to care about your customers. Whereas the bigger CEO's have to mostly worry about money. We founded this based on the idea that we were pissed off at the rates and the policies that we were beheld to by the people available, by the service providers available at the time. So we want to make sure that we don't get too far away from that. So we like to make sure that when somebody asks for something we are able to deliver it. We try to do that with novel applications of technology. For example, as technology develops certain things we were doing five or seven years ago, are no longer valid or no longer useful. We don't do certain kinds of links anymore because there is just not much use for it, and even so, some people will come and ask us for one of these links. We try to educate them at the time and let them know why they would want to go with something different and that is something I don't think you will end up finding in bigger companies as well. [around 10 minutes in audio clip]

I looked briefly through the other presentations that have been done here and I didn't see anything that was giving a big picture overview of how the net works. So I wanted to do that because it's important in understanding a lot of these issues. Because, while many of them are cultural and societal, there are significant technical issues and, if you don't understand the technical underpinnings, you may come out with solutions that may work great in theory but doesn't actually pan out.

So this is really the big picture of the Internet. You got your giant providers over here with lots of money and they buy really big fat pipes to the Internet. There is not Internet, all there are is these, as Ted Stevens is famous for saying, there are tubes, but there are also points where these tubes come together, and there are certain giant ones. There is one in Chicago, actually there are several in Chicago, there are some in St. Louis, around the nation there used to be seven, now there is quite a few more. These are known as 'network access points' and that's basically, you've probably heard of a broadband hotel, that is basically a big building and all its got in it are servers. That is what these network access points are, they are where these giant pipes that all come together and then people can exchange traffic. The internet, the word comes from an intranet, a network of networks and so that is where those networks come together and they network between each other. That is where most people, most large internet companies, get their internet access. By connecting to a network access point and trading with other networks there.

But there are also big providers called tier one providers and a tier one provider is basically a provider that has enough customers to that other people want to get to their network instead of them having to ask to get to someone else's. So, for example, if you are more valuable to Google than Google is to you then you are probably a tier one

provider. There aren't very many of those. There used to be, I believe, six and now there is quite a few more. By a reasonable definition Comcast is a tier one provider; even though they are not on a list of tier one provider. But AT&T certainly is, Sprint certainly is, and yuyunet (sp) is a big one from back in the day. Now, as I said there is more than one of them, so what if you are connected to AT&T, but your customer is connected to Sprint, how do you communicate to them? Well, the tier one providers share traffic back and forth, either at one of these access points, or directly between each other. So you might get to CNN by going from your ISP to Sprint, to AT&T, up to this network access point over to yahoo. So that's basically how the Internet works. That is the really big picture.

In a little bit more detail connections can be fast. Those are known as big pipes or fat pipes there are lots of different terms for them. Or they can be small and the description of whether they are big or small that is the meaning of bandwidth. It's really talking about the width of that line of that band of connectivity. It has a slightly different actual etymology, but that is the easiest to understand at this point in time. But there are a couple of details that you need to understand. On almost every line only one person can talk at a time. It's sort of like being in a room. While we can all may be able to talk at the same time only one person is going to get heard. So the way the internet works is it breaks the conversation up into little pieces. So, for example, if two people are trying to talk and one person is trying to say the Gettysburg address and the other person is trying to say the Declaration of Independence they break it up and at the ISP it gets divided up into these, it's called multiplexing the information. Know that some packets are bigger than others and some are smaller. For example, you might only have, we'll get into more detail on that later. Just note that some details are bigger than others.

Another key thing is that bigger pipes have more packets going over them each second. In a lot of cases it's the packets per second, not the total size of those packets that are the important factor. A lot of connections are limited in the number of packets per second. For example gaming uses a lot of packets per second but those packets are pretty small whereas downloading web pages uses big packets but fewer of them per second.

A little bit more just to give you a general understanding of how packets work. A packet can contain any kind of information. That's one of the beauties of the internet. Each packet of read text contains about a third of a page. Music is about a tenth of a second. Low definition video is about a fifth of a second and so forth. This will be available to you online so you don't need to be rigorous. There won't be a quiz at the end. Because it's broken up into these little packets one connection to your house can provide multiple different services to you. You can get the web you can do Skype, you can do TV at Hulu or whatever. Those all come over on one connection and because they are all broken down into that lowest common denominator of information which on the internet is these internet protocol packets.

Now you all know what the concept to download something. That's what we have been used to in probably up to ten years ago that was the only thing that we did. And now we are more and more doing something called streaming. So that's the difference between going to ITunes and downloading a song and to Pandora and playing it directly off of the Pandora site and it has some really big implications for the amount of bandwidth that you need. Specifically if you look here the difference between downloading a movie on a one megabyte connections it's going to be 1.6 hours to download a typical movie. Whereas if you are streaming it it will start in five seconds and it will be fine watching it in that one megabyte connection. So you need to take into account really all four of these categories of usage when you're thinking about how fast is fast enough.

One of the things that comes up a lot in the UC2B discussions is this concept of Big Broadband. Big Broadband is the goal is 100 megabyte connectivity and a lot of people say what do I need that for and really today there is not that much that you really need 100 megabytes for you know you can wait 3.6 seconds to download a song, you can wait half a second to start watching a movie but there are things where even up to a gigabyte it won't feel fluid unless you got that kind of connectivity and that's one of those things that we anticipate ten years from now becoming commonplace and you are going to have a laptop that doesn't have a hard drive in it. You are going to instead have hard drives spread around the globe and when you copy your movie from one hard drive to another what is actually happening is it's coming out this computer in Omaha and ending up in this computer in California and you want that to happen without waiting around. People are terrible at waiting, humans are, that's the [rub] time is really our resource because we can't extend it yet. Yet. So this I hope this will give you a little bit of background, not just for today, but in general how to look at these social solutions you gotta make sure they match up with what the technical things are saying. So for example if someone comes to you and they say we need 100 megabytes to do effective video because you know the download of video on 10 megabytes it takes 30 minutes and nobody is going to wait 36 minutes to watch a movie. But really what we are actually talking about is streaming when we are talking about watching movies for the most part. So do we really care that it takes 36 minutes, no what we really care is that it takes half a second on a 10 megabyte connection. So 10 megabytes is good enough for most movies.

It's that kind of thing where you gotta go back and forth with you shouldn't believe it when people come up here and tell you certain things you should believe. You should go back to the basic and question them. There are a couple more words to make sure you are clear on. Upstream bandwidth, that is talking about how fast you can send something to someone else whereas downstream is how fast they can send it to you. Normally with most services they know that most people are wanting to download things so they designed the service so the downstream speed is faster than the upstream speed. Normally that is a trade off if you can't have both fast. In some technologies there are ways to do it

that don't have that limitation, but they are going to be more expensive so that is another trade off that you gotta go through. Another one this word bandwidth. Really what that means is that the packet size and bits times the number of packets per second and what you get there is bits per second.

So in the big picture this part actually works pretty well. There is a lot of money in each of these pots and so when they need something they can pretty much buy it. Where you start having a problem is in this half of the picture which is known as the last mile. So there is lots and lots of approaches to the last mile. There is the cable approach, there is the DSL approach, what we have chosen is the wireless approach. I will give a brief analogy so you can think about wireless and how it works and I think in the future you will understand when somebody talks about a problem with wireless. You will be able to go back to this and get a feel for how that impacts.

Wireless communication is just like talking in a room. You can talk fast, you can talk slow, and that is basically saying how many bits per second or how many packets per second you're doing. It's harder to hear if you are farther away. If there are more people talking at the same time, if there is more background noise, or you are talking faster. It's also harder to hear if you are talking quieter. I should add that in. But another thing that is the same in wireless and in people is sometimes you will be better off instead of everyone being in one room trying to talk at the same time, instead you break up into little groups and then each of the people in the groups can talk and there is some guy in the group who is in in charge of recording what everyone says and then sending that up to the next layer. It's sort of like representational government versus direct democracy.

So when you are designing a wireless network you got to figure out who is talking to who and that is known as the wireless typology. You might choose a different thing based on the physical characteristics of what you are doing. For example, if your goal is to light up this room then you will make different decisions than if your goal is to light up this town, and if you are trying to light up this town versus trying to light up Aspen Colorado or some place with mountains then you will make different decisions based on that as well. You will also make different decisions based on what the characteristics of the radios you are going to use are. I think you have probably experienced the fact that FM radio doesn't go as far as AM radio. That continues up the scale on the frequencies that we generally use are much much higher than AM/FM radio and they just propagate differently and those propagations differences can be good. For example, it's great that the frequency we normally use 2.4 gigahertz doesn't go that far. Because that means I can have an access point here in this room and I can have an access point in the room over there and they're not competing. So there are differences in wireless propagation and you just have to take them into account it's not specifically saying that one thing is bad or good. You just have to make sure you are choosing an appropriate technology and frequency for the thing you are trying to do.

In terms of the wireless typology there are three basic ways you can do it. One is a star, one is a mesh, and one is what we modestly call Volo. The Volo design is a generalization of one you are very familiar with a cellular design which comes from the cellular industry. I don't actually have a great slide on that which is why I called it Volo. The star typology is where you have one transmitter and you have lots of customers and they're all talking to that one transmitter that system is really great because it's cheap, you just put up one transmitter you don't have to rent lots of towers, if you are putting up a tower you only have to put up one tower, it's very simple, you don't have to have a lot of knowledge to do something like that. You basically buy something to put on top of your tower and so long as you buy something from somebody who is technically competent then you are good to go. But, the main problem is it's just like everybody in this room trying to talk. Once you get beyond about 20 people all trying to talk to the tower you are not going to have enough bandwidth. You are not going to be able to do the kinds of things that we today expect to be able to do over the internet. You might be able to do email, you might even be able to do web pages reasonably well. But things like streaming video, things like voice over IP, they just don't work when you have that many people trying to talk at the same time.

So a lot of community networks and a lot of radical network thinkers are really big on this concept called mesh networking. A mesh network is basically where you have a network where each of the customers communicate to each other but some of the customers don't have internet connections and they don't even communicate directly with somebody that has an internet connection. So for this customer to get to the internet they have to go through either this customer, or that customer. Mesh has a lot of cool things about it. One, it is organic; you don't to have a big corporate infrastructure or a big governmental infrastructure to make it happen. You can set up a thing on your house and a neighbor can set up a thing on their house and their neighbor can set up a thing on their house and BANG you're golden. There's very little extra hardware that you have to buy you heard that I didn't say that anyone had to buy a tower in that system. You also don't have to buy a central transmitter. You can all share that internet connection that your friend has and it might be illegal based on the terms of service of your provider, but what they don't know won't hurt them. So you can do that to the extent that they don't catch. The other nice thing about it is you're interacting with your neighbors. That has got some good sociological implications. It means you actually have to talk to your neighbors. If your internet is not working then you can call them up and say 'what's up is your internet working, what's going on'. You have to know their name and it's a very very radical alien to me. But it's also unfortunately got a lot of drawbacks and those are the drawbacks that people really don't talk about when they are talking about mesh. It's sad because Mesh is a fantastic and really cool technology if what you are trying to do is set up this organic network with zero overhead, but it's really inefficient. I'm going through my neighbor. My neighbor is not even going to even spend extra money to put up a special transmitter.

They're just going to hope that it works. It's unpredictable if your neighbor decides that he does not want to share his connection anymore TOUGH. You don't have anything to say about it, you don't have a contract with anyone. So you're now getting bitten by the other side of the community friendly aspect of mesh networking. Last of all its short range, since you are not buying specialized equipment, since you are not installing towers above the tree line and stuff like that. You really can only communicate maybe a block at the most, usually less than a block, for reasonable performance. So while mesh has been touted, for example, in this town [example CUWin] their goal was to set up a big mesh network that covered all of Champaign/Urbana it's probably not an appropriate technology if we are going to depend on it as a kind of mission critical core feature of our lives. But it might have, or it certainly has been used well in developing countries for example where there is no infrastructure. So all you have is people who can share networks. Another thing to mention is the internet is a mesh, the internet at large; it's a really big mesh that has a lot of money flowing through it. So if something stops working they patch up the mesh to make it work again.

The last one at work is the Volo typology. We back in 2001 we were looking at all of these things. Venders sold a star system, vendors sold a mesh system, but nobody sold a system where you can have both lots of people and fast communication. So we developed our own and basically it's similar to the cellular model. But in the cellular model, you have these towers and a cell phone talks to a tower, and then the tower has a landline that connects it to the Internet. In our system you may talk to a tower, that tower may talk to another tower, it all depends on how many people you are trying to aggregate when you need to put in a landline you use appropriate technology for the problem you are trying to solve for the amount of bandwidth you are trying to provide. So this is sort of a general picture of what we like to talk about it as umbrellas of coverage. So we have one umbrella that covers from downtown Champaign to 12 miles out. That is not a superfast umbrella, but it's really big so that is a trade off that we made. We made a big umbrella that is not super fast. But then we have another umbrella for example, there is one umbrella that covers downtown Urbana. All it covers is downtown Urbana. You can't hear it if you are two blocks outside of downtown Urbana, but it provides much better performance to the people in downtown Urbana. So we are able to target our investment specifically at the areas where we have people who are interested in subscribing to our service. The advantages of that it is sort of described as a hierarchical cellular design. It's great because low overhead to start out with, but it can grow. The only disadvantage is you have to have a fair number of towers as there's more and more people. Right now we have somewhere less than a thousand customers. If we had ten thousand customers we would have to have ten times as many towers and that starts to become a challenge if you are in an urban environment like this. Not everyone wants a tower in their yard or in their neighborhood.

So I think what I would like to do now is pause for a minute. That was the technical half of the presentation. So can I get some feedback whether that helped you understand the technical issues and if you have any other questions about the technical aspects of it. Let's do a show of hands. Do you feel you understand the technical issues better than when you started today. Okay good. Do you feel that there are things that you have trouble still understanding that you can think of right now?

[At this point someone in the audience did ask a question, but the microphone did not pick up on the question]

These days we wouldn't even consider it fast enough to do anything. It's only one and half megabytes but those one and half megabytes are guaranteed to arrive exactly on time every second of every day of the whole year. A lot of T1 lines depend will guarantee that you don't see more than five minutes of down time in the entire years. That is a pretty robust service but you end up paying for that. For that one point five megabits you end up paying let's say four to five hundred dollars a month. Compare that with a cable connection which is probably costing 40 to 50 dollars a month and it's six times as fast and one tenth the cost.

All right so now let's move on to the more specifically germane the digital divide and the federal stimulus stuff that we are working on right now. So the federal stimulus package you've heard about it's a total of 7.2 billion dollars that's supposed to be distributed over the next three years. They're targeting currently at least unserved and underserved areas of the country. There are lots of thing that help your applications things like being unserved and underserved. Having a lot of community support that is what letters and that kind of thing and the applications for that were due in August and they postponed the announcements until December. So we're both UC2B and Volo themselves are anxiously awaiting that. The rural digital divide is a little bit different than the digital divide. In the rural areas you end up coming afoul of some basic economic equations. One is the infrastructure costs money. If you are going to deploy fiber optic cables or towers or anything of that sort you are going to spend money to do that. The other thing that costs a lot of money is people's time. So if you are going to have a technician who's doing some repair you are going to be paying that technician, you are going to be paying for the fact that they have the truck with all the tools in it at that time. So then in addition rural areas have fewer people per area. So you have fewer people per infrastructure dollar and you have more time and more money wasted in logistics of covering those people. So whereas if you have ten people on a city block those ten people could share the costs of fiber optic cable that runs down that road. If you instead have ten people on a country mile then those ten people are sharing roughly ten times the expense so there infrastructure cost is going to be ten times as much. In addition if something breaks the drive time is longer. So you have money that is just wasted in this guy driving out to fix your internet connection. It's pretty tough to find a way to provide both good and cheap

internet access in rural areas and so service providers normally make up this costs. They either have high rates, almost all of them have upfront charges, or they just don't cover the area. Most service providers don't cover rural areas at all.

The sad thing is when you call in and asks about that sometimes they will even lie to you. They will tell you that they cover your area or that they are planning to cover your area and they're just doing that so you don't go with somebody else and it's really pretty unpleasant the way they do that. The net result is that rural areas less money so they get less infrastructure and they have a higher barrier to entry both from a service provider how hard it is to cover a rural area and the flip side of it how far it is for someone living in a rural area to get a decent internet connection. I'll do another quick comparison. There is a small town at the corner of the county called Broadlands. They have a high school. That high school pays a thousand dollars a month for their single T1 internet connection. That is 1.5 megabits which they share between all of their students and all of their teachers. Compare that with downtown Urbana the Urbana High School which they just did a fairly major capital expenditure, but now they have a gigabit speed connectivity to the Illinois century network and they never have to pay again. All because it is a short enough distance to where they can run their own fiber and just get it done.

So the notice of funds availability came about and we read through it. We hadn't really looked at how we would solve the rural digital divide before we just looked at how we would be able to survive for the most part. But the [funding opportunity] allowed us to step back and ask what would we do if we wanted to come up with a grand plan for how to solve this if we had the kind of money that was available to big companies and to the governments. What would we do? What we would do is we would take the backbone of the infrastructure in CU and we would make them available out in the county by setting up a network of towers where each of those towers has a high speed link like 300 megabits to a gigabit to Champaign and then that infrastructure is something that costs a lot of money upfront but it then is pretty inexpensive because there are only 17 locations you have to maintain. The goal with that is to encourage local providers to use this tower to provide to their town and that gets rid of the logistics nightmare of supporting people who are far away. In a town like White Heath where you have maybe a thousand maybe Fifteen hundred people living there. There are several people living in that town undoubtedly who have the technical skills necessary to support people in White Heath. It's not a full time job but it's maybe a couple of hours a week or maybe a half time job or something like that. So they would not be able to start a company normally because they couldn't afford the infrastructure costs and they wouldn't be able to run a company normally because it's not a full time job. But if we can set the system up so the infrastructure cost is low and they don't have to have a full time job they are just supporting their local people, their neighbors that they actually know, then we think we can make it possible for you to have both locally supported and pretty fast Internet access

in rural areas. So we are calling the Champaign County broadband backbone and the cost of that is 1 million dollars for that component of it. [Jokes about passing around the hat]

The problem with that is you put up 17 towers and what if nobody comes. So we also told the federal government, well if you give us another half million dollars we will hook up 1200 people and that will be enough people so that nobody has to pay an upfront cost again. In the Champaign county backbone our goal was to eliminate the barrier to entry of all service providers, all rural service providers, in this proposal the goal is to limit the barrier of entry to individuals so they don't have to pay three to five hundred dollars to get hooked up. In addition the technology we are using in this system is quite a bit faster than most wireless services . . . which you may have heard a little bit about but it's the newest generation of wireless technology and it's able to go up to about 300 megabits in ideal conditions and that boils down to after you take into account that conditions are rarely ideal...and that is pretty much what we asked for funding for. If you compared that to the UC2B it's a lot less money, its fewer households but its bigger square miles and our dollars per household are very good and our speeds are about the same or better. It's not fiber so you are not going to be [something that] can be put into the ground and be twenty five years without maintenance. That's pretty much it. That is what I prepared and I guess I would like to open the floor to talk about rural digital divide and other aspects of this stuff.

Q: I have a question. Mahomet, I don't know if it falls into the 12 mile parameter of Downtown Champaign but its pretty close. Mahomet is a midsized town and I wonder if you could say a few words about how internet works out there.

A: Sure Mahomet is covered a cable broadband provider, Mediacom, as their primary landline based provider. The cost of Mediacom service is a little bit higher than Comcast here in town and the speed of the service is a little bit lower, the service and support is a little bit worse. In general it's sort of one tier down from service here in town. But it's available and lots of people have it and it pretty much works. The outskirts of Mahomet though for the most part there is one provider available. It's a company called TSG and they are one of these, I hope nobody works for them, they are one of these small providers that don't have the resources to do it right. They don't a big enough market to deploy the infrastructure that they need to keep up with technology. They have a star typology and they have hundreds of people on that star and the result is pretty sad. The first proposal would enable TSG to provide better service and if we get that funding we will ask them to please use our resources and provide better service. But again because there is a wire line provider in Mahomet proper we are not really tackling that problem. I

certainly think it could be possible for there to be better service for Mediacom or some other company to provide better service, but the market size just isn't enough to justify to providers competing. So I don't expect it to dramatically improve.

Q: [basically asked what would be done if the UC2B funding happened or didn't happen]

A: Our proposal does not depend on UC2B we are independent of UC2B. You can think of UC2B as a plan for Champaign Urbana proper and ours is a plan for the areas outside of Champaign/Urbana proper. So while I think it would be super cool if UC2B happens if it doesn't it doesn't impact our ability to do our project. If it happens it will make it a couple of thousand dollars cheaper to do our stuff. Because we won't have to buy or pay for certain backbone connections. You asked whether it's a possibility that UC2B won't happen. Yeah there is, there is a real possibility I don't think that anyone would put down money on one way or the other. My personal guess that regardless of what happens we opened a topic, we have conversations, and that is providing big broadband in a socially responsible way in Champaign/Urbana and that is a topic that did not have the numbers of zero after it that it has now until two year ago or a year ago.

Abdul interjects: Actually when you said that people wouldn't put money either way. I think there is about 7 millions dollars on the table.

Peter: What I meant was that if they had to pony up that money whether we would win or not I don't know if they would do that. [If we don't get the grant] then people won't lose the 7 million bucks and if we had gone to the city councils and said just give us your 500 thousand your million dollars now and, if we don't win, we will keep it. We will do something good you can trust us I don't think.

Abdul: The objective is to have a national system where everyone is connected so every time there are pockets of people who are disconnected then that slows everybody down. In other words you can't have a business model or you can't have a health care delivery system or you can't have an educational system if some high schools are connected, but other high schools are not connected. So that is why E Rate is important that is where this is a national program so the rural and the urban have to work together if we are going to have a national system. Or, like you said, there are high schools where people don't have connectivity it's like high schools without an AP program. When students come to school here they are not on an equal level. I mean if some people have taken AP Calculus and others haven't so we are trying to develop a national system and part of the anarchy is that you got all these different companies, all these different business models and there is dark fiber in rural America. Meaning they have laid the cable there but their business model doesn't make it accessible to anybody yet. So I was talking to a pig farmer in Piatt County about this like I was bringing something from star wars and he said "What? There is

cable right down the road. But it's dark cable. No one is using it. What is the state of dark cable in Champaign County?

Peter: So the dark fiber that is in Champaign county is used to connect the towns together basically. It's been run by a telecom AT&T, McCloud, Comcast; even Sprint has some going through here. Basically to connect Champaign/Urbana to somewhere else. So there business model simply does not allow them to dig next to this pig farmer and break off a little trickle to him. I can understand that because the infrastructure to do that if what you are normally providing is this carrier grade super expensive connectivity you can't mess with that. If you open that cable you have created a point of failure and you've spent 80,000 to 150,000 dollars just to open up that cable and what are you going to get from it. Twenty to forty bucks a month.

Abdul: Is it like the highway system? You can't get on and off of it anytime you want. There are places you have to go another twenty miles before you can get off.

Peter: You can definitely make that analogy

Abdul: If it's a question of scale then there is a question of utility call it what you like

Peter: Then there is the question of what the value proposition is. For these companies, the value proposition is dollars and with roads it's not. The roads are run by the government and their value proposition is providing transportation connectivity to all of the nation. It's not about specifically if we make an intersection here will we the state make more money. It's about if we make this intersection here will that foster a better state where better state is not simply defined by how much money we make.

Abdul: So implicit in this argument does that mean a public option is in our interests.

Peter: I have for a long time felt that the only reasonable end game for internet connectivity is the rhodes model where it's paid for a combination of locally and state and federal money goes into that. Where the political bodies are responsible for providing that stuff. A public utility. Unfortunately there are companies who are big enough. At least as big as local governments and often as big as many state governments that say they can do it just as well, and they are right. They can do it just as well. They just won't do it quite the same and they maybe won't do it as well they will choose not to do it as well.

Question: To take that same analogy, if there was an intersection every 8th of a mile on I74 the traffic would go much slower. Is the same thing going to happen if you take that cable and you run it to every farmer?

Peter: It will unless you design the system for that kind of thing. So for example: Sprint can't all of a sudden change their mind and say well now we see that it might be better to have an intersection every eighth of a mile in our fiber. Let's change and we will do it

that way from now on. They can't do that because they already have a system designed with the idea that they are going from one big town to another big town and they have a really big pipe between those places. It would impact their system negatively to do that. As I said there is two ways that could impact it. One it would slow it down and it would also make it less reliable. So speed and reliability are both parts of the value of the connection.

Question: Is there any point in looking at Satellite connection in all of this.

Peter: I personally feel that it is a dead end. Satellite is great if it's a one way communication and if it's not considered to be mission critical. If you have a particularly heavy storm there is no way to guarantee that satellite will always get through. So I think that instead of Cable TV Satellite TV is a perfectly reasonable thing to do. Satellite Internet fundamentally you have the fact that the satellites are a couple of hundred miles away and, in fact, many of the satellites are thousands of miles away. So there is time between when you send that information to the satellite and when it comes back. In addition, I talked about the star model. If you have a satellite that is trying to serve a state a region of the US. That is millions and millions of people all trying to communicate with that one satellite and they put a lot of money into that one satellite so that it works a lot better than some Joe putting up a tower. But it's never going to be nearly as much capacity or as much performance.

[Question on the demographics of rural communities and training that would be involved in bringing high speed Internet]

In our proposal we don't have that component. My approach is sort of what we are really worrying about is the kids. The kids train themselves to a large extent if the system is available and if we make sure it's available in the schools they and their friends will figure it out. In twenty years the kids will replace the parents then we will be good to go. So that is not a great answer if you care about then sometime between now and twenty years from now which a lot of people do....we simply don't have the resources to take on that goal and frankly a lot of people are technically savvy. A lot of people in rural areas are technically savvy. Even farmers surprisingly often are very connected. They get their weather up to the minute, they find out about stock prices or commodity prices on a daily basis. They have advanced models for what will happen if the rain doesn't come if the rain does come. Whether they should sale whether they should buy. That kind of stuff. So there is a lot of technical savvy in the rural demographic.

Abdul: Because they are dealing with equipment they have to service their own stuff. Then people who live in the service sector of the urban economy are deskilled we don't have to do anything.

Peter: Now people who live in small towns, rural towns, are I think, a different demographic than farmers. I don't know for sure if they are as technically savvy, but again for the most part I'm primarily focused on the lower generation and I do feel that they get up fast enough that for the most part if we put the infrastructure in and make sure the schools are connected. They will want it at home, they will get it at home, and they will for the most part know how to use it.

[Question on the basic geography of the rural communities. What would it cost for a school or small town to start their own wireless?]

Okay so let's take that example of Broadlands. Broadlands has maybe a thousand people in it maybe five hundred. So to put up a tower is going to cost them about ten thousand dollars. To put the appropriate equipment on the tower is going to cost another ten thousand dollars. Then to get a wireless connection from there to Champaign is going to cost them thirty to forty thousand dollars. You have to add on to that they will need a place in Champaign to put the other end of that and in Champaign they have to pay for connectivity to the internet and that would be several thousand dollars a month. So in addition you have to add on they need someone to support that network and support the tower. They probably need to pay someone for the land, although someone may donate.... [Basically it would take a community wide effort to go a different direction than a T-1 connection]...it's not just something they can do. It's something they would have to put together. It's a business that they would have to build even if it's a not for profit business.

Abdul: A very unique example is Lafayette LA which turns out to be a very conservative town. But it has an interesting history of municipal socialism. In the sense that they have from electricity on decided that these things were going to be public utilities that the city was going to provide for everybody and they are doing that now with the internet. Look up Lafayette LA to see one of the major alternatives to a town either taking whatever the telecoms offer or having nothing. This is very interesting because we often think of a lot of these issues as one political party or another or one political ideology or another and yet, these tools like electricity and the internet really are fundamental to the operation of a society whatever your point of view is and here is a an example of that many people who are in the broadband process now are going to Lafayette LA to study what they have done. Because it provides a counterbalance, if it doesn't replace it keeps everybody honest. Because you know that everybody has a business model that has to do with how much you are going to charge your customers and if somebody else can provide it cheaper than either you go out of business or you have to compete. So that is the dynamic of the system and in a small town a lot of times you are below the radar in terms of business models so this is a very interesting example. In Champaign/Urbana I think I am right in saying this, Urbana might be closer to the Lafayette model than Champaign, but I'm not sure about that.

Peter: The real problem with that analogy is that Lafayette did this with electricity so back in the day when they could get started inexpensively they built an electric utility and now they have all of the infrastructure involved with the electric utility to add a fiber network on top of. They don't have to buy the trucks; they don't have to man the 24 hour monitoring services. They already have that stuff deployed. In addition I would question whether Lafayette is a good example for rural. It's not a rural community it's somewhat smaller than Champaign, but not much it is maybe the size of Champaign.

Abdul: Is there a comparable county model in the country.

Peter: In Vermont in the northeast there are a few counties or states that have run broadband networks and the mountain area network in North Carolina that is a connectivity model. Unfortunately a lot of those and what they are replacing is so bad that they didn't set the bar very high and so when a Comcast comes into an area that they serve Comcast eats them alive because they didn't put the kind of infrastructure in that would provide really competitive speeds. They just put in what would be an improvement. [Peter mentions other rural models as well] but there is not a clear way to get rural people access to the same kind of facilities that are in urban areas.

[Discussion continues]

Appendix J

November 12, 2009

Bill Dejarnette - Information Services Manager for the City of Urbana

Policy and City Government

Abdul: Okay I would like to start this morning. Good morning we are continuing our digital divide lecture series. As you know the basic framework is the digital divide. What is it and what can we do about it. Actually there is another question which is so what? In other words, what is the significance of all of this? We have had several presentations dealing with the public sector. The private sector, civil society, and many of the issues are the same. In the context of this of course we are all facing the flu pandemic [and Abdul asks audience members to be careful in coughing and to use common sense]. We are toward the end of the lecture series and we are looking now at two state agencies. Two governmental agencies because in the sense these governmental agencies are in the central hub in terms of planning and implementation of a system to bring everyone online. Institutions, homes, the entire community. The last lecture will be given by the person who is Governor Quinn's main point person on broadband deployment. So that will be the way we wrap up the lecture series. Today on the local level, as important as the state, is the city. So today we are going to have a talk by a University of Illinois Alum, who is the Chief Information Officer of the City of Urbana and as is our practice he will make a presentation and we will have a full and open discussion. So without further comment I introduce Bill Dejarnette.

Bill Dejarnette:

Good Morning, Everyone hear me fine? Excellent. I'm Bill Dejarnette; I'm a certified public accountant, manager of information systems, City of Urbana. As you can tell as the head of IT, no PowerPoint, no anything, low tech, white board. Why would that be? Because well computers don't always work and the whiteboard always works. We are a somewhat unique entity. We actually still like software. So for a small governmental city of 35,000 we write general ledger, payroll, parking tickets, police records, and that police records is Urbana's/Champaigns, and the University of Illinois police records all run through the system and the software that we write and maintain. Obviously internet connectivity is critical to us because of the things we support for everyone.

Our first real foray into placing fiber into the ground was in the fall of 2003 and that got us thinking about how to do this. Set the tone for the model we now use. When Champaign County acquired what used to be Brookens School out on Washington and moved a tremendous amount of their assets to that location they needed connectivity to the downtown courthouse. The analysis they perform and they looked at it a number of

times and it was a phenomenal amount of money to get that done. So it got shelved, and shelved, and shelved. We happened to be doing a large street light project so that meant we had a boring team in town. We had bits in place we had an understanding of the cost of conduit. We sat down and said 'Wow, is there some way we can piggyback this together'. Now what we did not do is run the fiber through the streetlight conduit. Because they had a team in town we had a price in place based on a bid we were able to leverage that, do an adjustment, and add this on. So we, all of a sudden, ran fiber from the courthouse to the city building, from the city building to our public works, our public works to Brookens. We had it down we had it in the ground. We had fiber lit up before the attorneys in the county and the attorneys in the city sat down to draw up paperwork for the agreement. Now we took advantage of a window of opportunity if we had waited for everything to flow we wouldn't have gotten it done. So that meant we built a team and we had trust. We trusted that they were going to pay their share. We trusted that because we had this mutual need we would be able to develop this good working relationship. Because we are sharing assets and sharing resources. Now all of a sudden a lot of the little bitty in fighting that may or may not happen between cities and counties that has to all go away because this has to work. All right.

Now there is one other piece that made this work very well. My two locations sit between their two locations. So I was pretty sure we were going to get along just fine. But nonetheless that kind of set the tone that there are ways to do this we just have to look outside the box a bit. Total cost back then 36 strands of fiber, patch panels, everything two inch conduit, hand holds which are the boxes in the ground, the whole nine yards we got done for around twelve dollars and seventy eight cents a foot. Now the estimate back then beforehand was twenty five dollars a foot. The estimates out there right now are thirty dollars a foot to run fiber approximately. This also, by hooking to the county picked up some interesting freebies for us. We picked up the sheriff's office, and we picked up METCAD. METCAD is the dispatch center for police and fire for Champaign County. So fiber to that was a huge benefit because that meant fiber to us meant fiber to everyone else. Winter 2008 we did some small downtown work picked up the library, township facilities, and because we had this good working relationship with the county it didn't have to come out of my building, it came out of the county courthouse to get to the library which saved us bunch money. But once again, trust and relationships.

At this point the city of Urbana, the county, the library all recognized the need to get to ICN. ICN is the Illinois Century Network is the state of Illinois giant broadband pathway that takes care of schools, libraries, governmental units, and they provide high bandwidth to the libraries for basically nothing. Huge bandwidth everyone wants to get there. But there is no way to get there, everyone was talking T1's to get to ICN we were, which meant that we don't let anybody run video, same thing the Urbana high school went through, you can only support so much bandwidth. Got to get to ICN. Well there wasn't a

lot of ways to get to ICN. So we said, you know what, we need to get involved, somehow the U of I has to help us. That went nowhere for a number of years and then all of a sudden the U of I said that's no problem, just get to us you are golden. So we immediately ran fiber to a corner of Lincoln and Nevada, there was a manhole there, since I'm going that way I said to the school districts. Hey Leal is on the way and what the heck if Leal is on the way why don't we pick up the high school the junior high, we'll pick up the pool because the park district has got the pool in effect. With the park district already we provide data processing services for the park district on contract. So we will pick up that on its way to us. They said gee that's great how much is it, because they heard twenty five thirty dollars a foot. Matter of fact there are a couple of big models out there. There was a model a city did that said thirty dollars a foot. When I got my bids and we will talk about the bid process and what I was able to do to drive the prices down and I drove it down. We will talk about that in a minute. They [the schools] said we're in. So at that point in time we are starting to pick up facilities. Now they're excited. All right.

Fiber to the schools is also fiber not just from school to school it's fiber to ICN so now you can push bandwidth to all of the schools that they never had before. This was in 2008 a year ago last winter we were pulling fiber, so a year ago last winter we were pulling fiber, we were doing all of this just before the big broadband thing came out of nowhere. So we were already connecting schools, we were already running fiber, we were already putting conduit into the ground. So that got us going so let's talk about what we did and how we pushed it and we will work through this. So the keys to the project's success is, in the old model and I'm going to draw some correlations, own fiber, by own fiber, what I said to the school district was yeah we are running a bunch of strands but we are going to give you your own strands. So what that meant was is they could literally build their own network, exactly the way they wanted it to run it, with their hardware, and that kept it simple so they could sell these concepts to their board and say 'yeah, security is not an issue for us we are on our own fibers' we don't need fancy splitters we don't need to sent multiple colors, gee your on the blue spectrum, we are sending ours on the red spectrum. All that stuff goes away. Now they are buying inexpensive routers on their own strands made great sense. So now we just shared the primary facilities, we shared the conduit, we shared the handholds, we shared the number 10 copper tracer wire, so that when Julie is trying to figure out where [the wires are] for somebody not to cut it all that is done. We shared all of that. Of 36 strands I gave those 8 so that was simple. They could wrap their head around it we could wrap our head around it. We didn't have to worry about a lot of issues about 'Oh, somehow we stepped on their traffic' all that goes away.

Then we solved the gestalt theory, we will go with the simple version of the gestalt theory. This is the simplified version. The whole is the greater than the sum of its parts. So how do we do that? We leverage technological expertise amongst the users. I would pick up the county; they got some sharp IT guys. We picked up the school district, we

picked up my staff. Now we have got a better brain making better group decisions. We didn't tell the school how to do business. We told them we are going to give you things, we are going to give you the access to potentially offsite backup techniques, we are going to give you some other people to call if you got questions and issues. We leveraged a better team without having to buy a better team. Commonality of equipment so that as a group we maintain fewer spares, spare parts, switchers, routers, everybody doesn't need extras, we just need a couple of extras for the whole group. Technology to support failover including we provided them including we provided them the ability to use the city county high speed wireless bridged ISDN because we have wireless bridged ISDN. When it rains it gets a little iffy. But nonetheless fiber gets cut for the school district they are going back out the other way coming through our wireless and they are still getting ICN. They got that for nothing, just being part of the group. The ability to be part of a future ring structure everybody knows what I am talking about the ring structure for fiber. Same issue instead of the wireless backup boom, boom, boom, if anything is in a circle I cut this one then traffic goes back the other way. So I can eat a major cut and nobody has lost the service. Well you get that by leveraging a lot of players building a ring.

The other piece of this that we are working towards is the chance to work with other partners to leverage voice over IP, disaster recovery, backup technology that may be too expensive or complex for one player to do. Two or three or four all of a sudden these things make sense. We have a facility on the fire path that is computer training labs. That means these facilities can be used during a building specific or community wide disaster if the data is available through secured back up sites to virtual servers. Well they get that from being part of a group. Because some of these are expensive technologies but they are not [as expensive] when spread over three, four, or five organizations. So we sell part of that saying where the whole is greater than the sum of its parts. We can make you part of a better thing. Now get this done and this is why owen said I am high energy. The project needs a champion. It's a fundamental activity, call it sponsorship, call it whatever you want, and on small projects the sponsor may function as project manager. But you've got to actively foster the support or it will slip behind other projects that are perceived as more important. If you want your thing to be important then you got to make sure that everyone understands that it is important. You have to articulate the strategic goals. Just because it's important to you doesn't mean it's important to anybody else. You have got to sell it, make the case, make the key decisions timely, that is the thing everybody struggles with. Some of these decisions are really iffy and I'll tell you about a really great one right now that is stomping on my timeliness. Anticipate roadblocks, create alternatives, make sure that all involved keep their eye on the prize.

I will talk about this in relation to the school district. This minimizes the bumps and keeps the inevitable problems in perspective and the reason why I say that is. I told the school district that, and because we already had proof in the pudding, because we already

had a county one that worked very very well. I said 'trust me' it's going to be like the guy who says I'm going to fix your kitchen and he goes away for two weeks and comes back, but eventually you have got the greatest kitchen you've ever had. Well that is the same thing for this. If we have to talk about this every day and have large groups and large meetings and go on. We will not get this done. So you are going to have to trust me that it's going to be annoying periodically, you are not going to like what you hear me say, it's gonna do this or that, we are going to cut two water lines on the way to wherever. What is the prize...ICN. What's the prize....connectivity to all of your schools. What's the prize for us....ICN and a more wired community. Cause I also have Urbana Public Television at my site....UPTV. Fiber to UPTV all of a sudden means these facilities can now push classes and everything literally to a TV Station and have a worldwide market. Fiber does that for me. In this case not only do I rah rah the project I function as general contractor.

This is really critical because by functioning as general contractor I reduce the overall costs through - I split the project into components. This is why people end up with that thirty to thirty five dollar a foot thing. They want it simple for THEM. They want a turnkey thing. I want fiber from here to here and I want it to run. Great. Do you know how many vendors can provide you with the boring to put two inch conduit into the ground, or then pull the fiber, or then fuse the fiber, and do all of that? Not very many. What I do now and this is what I meant with ICN, I bid conduit boring because I will get half a dozen vendors who say 'yeah I got a boring rig' I can run conduit. Now all of a sudden my conduit is getting in the ground for five dollars and fifty cents a foot. Because I have competition and I'm also providing work for smaller organizations because I'm not forcing them to make allegiance to a another technology that they don't understand. Because otherwise if I say it's got to be a completed project then I have to either go no I don't bid or god I got to find some people who can do some of this fibery stuff. Well I don't really understand it so we are going to have to up our prices by another twenty percent because I don't get it and I don't know them and I don't trust them. So I broke it apart and then I went out and said I need fiber pulled. I didn't say I needed it fused, I did not say I need technology, for you to do all of the hookups and stuff. I said I need for you to be able to pull a piece of cable without breaking it. Can you do that, can you spool me another fifty or sixty feet in every handhold. I got a number of vendors coming through the door. So now I'm getting handhold bids of a thousand which seven years ago cost me two thousand. I'm getting conduit in the ground for five fifty a foot when seven years ago costs seven dollars a foot, I'm getting fiber thirty six strand into the ground for under a dollar a foot so now I'm under ten dollars - not thirty that everybody else is wants to pay. I'm literally done at ten dollars and I let the organizations decide who they want to do the final connectivity, who are they comfortable with. That doesn't go to the lowest bidder that goes to who they want to deal with, because that's the piece that really has got to work.

So all of sudden our members have control over the pieces that matter to them, I've spread the bidding to a much wider area, and my costs, because I'm willing to be general contractor, my costs have now dropped by a factor of two thirds. Which is why I met with ICN, Illinois Century Network who said 'how come you guys are doing this for under ten dollars a foot and nobody else can do this for under thirty dollars a foot', and I laid this out for them. Same reason that Bloomington Normal has got a project in before the feds. They are using my technique and the project that Champaign-Urbana is looking at in the multi-million dollar range they are going to do all of Bloomington-Normal for six million dollars using that technique. Split the components, be general contractor, control your destiny, but also allow more people to play. Because training boring crews, let's say we want to support the community and we want to get more people involved, I don't have to train a crew that can do everything. I got to get a boring rig and get three guys that can bore. Great, all of a sudden that piece if available and that is trainable, and it's trainable fast. There's ways to do these things and we have been very pleased, and the work has been outstanding. Yeah, it's really nice to be able to hold one person accountable, but if it doesn't work you have got to fix it. I don't care where it's at that's my problem that's my cost but considering I'm saving the taxpayers sixty percent it's well worth it and it's appropriate to do it. The beauty is it also created competition and it brought vendors to play who were never bidding on any of these projects at all. A good point Volo has won my fiber pull. They never envisioned doing things like that before. But it was now something they could wrap their head around and now we have another player in town who does fiber. Now leverage these prices. I get great prices so the school districts project we got done to the high school, we got to me, we got to Leal. But I had this great price I said well you know contract bid specifications can say I can extend it within these parameters within this bid specification. So the vendor is already in town. He has a captured audience. [I go to them and say] so how would you like to do a little bit more. Well sure so price it and we then went ahead and picked up Wiley and Prairie [schools] on the same contract at the same price. Wiley came out of the high school/junior high complex and Prairie came out of Brookens because I have a relationship with the county. For the county it's good because it's extending their part of a ring that may eventually join up, so they will gladly help. Because their eye on the prize is a bigger ring. So we are able to leverage that great price.

Now work closely with your providers. We worked very closely with ICN because they are ultimately who we are going to talk and connect to. So we made sure they completely understood before we did it and, as we developed it, what our expectations were. So they could say 'well we can't do that anyway or whatever you do...dah, dah, dah' all of that worked very well. They worked well with us and turned it on and on we go. ICN, keeping them involved because they touch all up and down the state, they are able to talk to other places in town that are getting to them and they can say 'hey Urbana has already got this, why don't you just join into that. So, all of a sudden, they are helping us to extend our

ring because they like the relationship that they have got and it's been successful. So each time we grow we are stronger. Conclusions for that part. It's not rocket science it's a sprinkler system. Look at those maps it's just like putting a septic system in a yard, or a sprinkler system, you've just got to cover the area. If you don't cover it you got dead spots. It's a sprinkler system don't make it hard. So when I say it's a sprinkler system that also goes back to simple.

Understand the project goals. If you understand the goals you can correctly evaluate the alternatives. Now here is the piece that is hard when you are general contracting. Follow the money, question the expense, ask what the cheaper alternatives are, and what the trade offs are. People will tend to bid you what you ask for. Don't be an expert in an area where you are not an expert. Because when you give a bid out you are basically saying I know exactly what I want. Don't do that. Find a way to garner more knowledge so you are getting the right things back. Nothing hurts worse than having a vendor go 'well you know we could have done this and I would have saved you another'...why didn't you tell...'because that is not what you asked for in the bid'. That's a killer so help them help you. Never assume a great idea stands alone. Just because the value of the project is obvious to you doesn't mean it doesn't need constant support and supervision. Otherwise, like I said before other things want to take over and take time because we are not sure that there is an infinite amount of money and we know there is not an infinite amount of time. All successful projects ride on the toe of one boot. Make sure the person wearing the boot cares about the project, has a strong leg, and the boot has a point. Hey these are things that you learn and one of those things you learn is you have to maintain people's attention when you need their attention. The balance is letting things drop below the radar when it's counterproductive to keep everybody excited and fired up. You can't keep everybody on point all the time. [Makes a reference to the school district that is unclear] We got to the point where he believes it's going to be what it is because he has seen it now. So when I say yeah I'm going to have your administration building hooked up. We are picking up Yankee Ridge and Loman in this run, and that conduit is all in the ground right now. It will happen when it happens. I wish it could happen faster, it would have happened faster without broadband and broadband [the proposal] has killed my time frame. Not saying that it's a bad thing, but it creates complexities.

Let's jump to some talking points. From an IT perspective simple, reliable, robust, maintainable. Simple, easy to understand, easy to fix, to replace, and to train staff. If you can't make it simple you probably don't understand. A good example of this is how many times have we said to somebody, "well it's simple' that just means they we understand but [the other person] doesn't understand. At the operational level most of us in her can't build a TV, I mean the Hirsch kits are gone, but the operation is simple at least at the level we need it to function and where we grew up at. I found that when my older son who graduated top of his class in electrical engineering here shows up and looks at my

TV he is looking at aspects that I don't even care about all right. That pink looks pretty fine to me, but the pieces I need look pretty simple to me. It works, I turn it on, I hit the channels, I get to see what I want to watch, and that's really good enough. His issues are beyond what I care about. Reliable: We define reliable that usually means uptime. Uptime is king, you turn it on it better work. I better work the way today that it worked yesterday. If it's reliable and discipline makes systems reliable. When we talk about discipline that is organizational discipline. How we do things throughout an organization allows us to create consistency which creates the appearance of reliability. We have an expectation that if a person sitting at this desk doing this job - two things if they sat at another desk to do that job it happens the exact same way and/or they talk to one of their peers about doing a job they do it the same way. Otherwise I get no cross training, I get no benefits, and I completely lose my reliability. Robust: Build for the future but don't buy what you don't need. Computational costs always decrease so it's a tough benefit. We have all gone through this when we have gone to replace a laptop. Well there is always going to be a better one in three months. I can guarantee every time you go to the Toshiba website the model you bought is gone and they have a new model. We can't even fill the bids on Toshiba laptops because the models we bid on don't even exist by the time the bid goes through. But you can't not buy one you gotta have what you gotta have when you have to have it. So it's a tough trade off but buying something that is going to be fabulous for something that you are not even doing. I suggest you rethink that for two reasons. By the time you get there you may not be doing it that way anyway. Maintainable: Maintainable is the golden child born of simplicity and reliability. If you keep it simple, make it reliable, you can maintain it. If instead you marry complexity to dubiousness you birth an unruly child that eats all of your time and destroys your credibility. Nonetheless simple is king, even the most complex things is simple to somebody. The key is the right people doing the right job. Don't make people who don't know what they are doing do the things they don't know how to do. We try to do this all the time. We have assigned tasks and there is a principle called the Peter Principle has everyone heard of the Peter Principle? Basically the concept is I continue to move someone up the organizational chain to the point of incompetence. Because they are successful [in one area] I move them up and give them more responsibility and more authority and I will continue to move them until they are a complete and total failure and then I will leave them there. Because you can't move anybody back...no one wants to go back. So we continue to push people up until they are a complete and total failure...that is the Peter Principle. I'm old I know lots of old stuff.

Build redundancy, multiple disciplines; wireless networks get better every single day. We use wireless right now to enhance our fiber network. What has big broadband brought for Urbana? We are already closing in on an intergovernmental infrastructure, city council, schools, and interestingly enough I have some fiber and some conduit and we were looking at Fiber to the home before the big project came up. So I have some extra fiber

laying around that I'm not using right now that I may end up using. Total community outreach, broadband to the home, was a natural extension, but it brings interesting challenges to the table. You are now trying to run essentially a utility with the need for 24/7 reliability and the staffing to match. In sport lingo that means you either build a team or buy a team. If I build a team that means I have to have all staff in house, have to be able to deal with everything and most places that have had any version of success already have had an electrical utility in place. That meant they had boring crews, they had trucks, they had guys, they already had the methodology to hit every house, they had the building systems in place so it was a nice easy switch. Or I buy a team and that means I spend x amount of dollars hiring outside contractors to take care of all of the work. Comcast has gone to part of that because they are trying to centralize all of their build a team part, so you call an 800 number and you ship stuff back and forth to them. The local guys that climb the poles are subcontractors. So they are trying to get the best of both worlds.

Last but not least Digital Divide. For me it comes down to knowledge and by knowledge what I mean is I don't know I need something until I know I need it. I don't miss what I don't have and what I don't' know. What we used to call keeping up with the Jones. The concept of keeping up with the Jones is somewhat similar in that if I don't know these things are out there why do I need large broadband into the home. This where the schools and you guys come into place. Because while people in my age group are driven to use it because I want to exchange emails and pictures with my grandchildren. Students, hopefully, and I mean little ones hopefully have grown up in it and their expectations of what they will do will build on their prior successes. Education is a good example it's hard for anyone to jump up two educational levels. In other words if my grandparents got through junior high I will probably get through college because my parents got through high school...all right. Same thing everyone jumps up a couple of levels and it takes time to grind through levels. The more information I give these kids the bigger their base is, and the broader their expectation is, and the easier for them to say I know exactly what I need. I was out and did that home to home three days for the surveys that were done for broadband, and what I saw was every single person had a cell phone. I don't care whether they were rich, whether they made zero money, everyone had a cell phone. Why, because they were able to leverage phone to that next level. A lot of people because of security. Cell phone bought you a lot of comfort. I'm no longer going to be stuck somewhere at bad times and not be able to contact somebody. And connection to people that I care about. Everybody has to have one; no matter if they don't have any money at all they find the money for a cell phone period. Well they grew up in the phone era. I mean AT&T marketed phones so well that when they wanted to go to digital. Does anybody remember the princess phone. Princess phone fabulous you just hit buttons and it was awesome. They wanted to go there for the new switching equipment, but you know what. They charged a premium for it. You have to pay to go digital and it was double cool for them.

Extra cash flow and it got to the digital solution they wanted to get to. But everybody grew up with phones so the next extension of phones is easy.

Well not everyone has grown up with computers so that extension of what all it can do for them is not as obvious. So knowledge here will give them this broad base to have a high expectation of what computers can do for them. I expect them to do a tremendous amount. My boys have had computers literally day one and they are 29 and 25 and one graduated top of his class in from the computer electrical engineering program at the U of I. The other one is getting his doctorate in mathematics here. I'm telling you having that time in front of those computers made all of the difference. I don't care whether they were playing games, a lot of games, oh god a lot of games. Or they were doing analysis, or they were doing research, but nonetheless that exposure built their understanding of what this can do for them. For them it does everything there is nothing they can't do or find out there, because they've grown up with it. Years ago when AltaVista was a research tool my oldest son was the first hit for Dejarnette, the only hit in AltaVista and that is because he was told it was supposed to be a cyber camp to do some things and it was for little kids, and it wasn't. They were pretty much high school and college kids, but it didn't matter because him and his little buddy took to it. They were years ahead of these guys in high school and college because he was never not around a computer. My laptop was a transportable because it was this big the monitor was in the lid and it was that big and it was made by a company that doesn't exist [anymore] and it was amber which was really cool.

So exposure and knowledge will get us there. Assuming that people will want something that they don't understand [is something] I don't believe will get us there as fast as pushing from this side some education across the top side that will pull up, but my second side is not as large with older people pulling this way. It should be the younger people pushing saying I need more bandwidth. I need more access; I need to see all of the videos I can possibly see. Because we still learn the same way. We like to see things written, we like to see pictures, we need sound. The more of those things and the computer does that better than anything else right now and as soon as we hook up [some more things into] chairs and get some electric shock, some smell, and all of these other components then I think there is no reason to leave that chair. We get everything you want, but it's tough and it will be tough to educate people who don't care. They have to want to; they need a life changing issue. Why do guys lose weight, they went to the doctor and the doctor says you don't lose weight you will die. Why do they quit smoking well if you don't quit smoking you are going to die? Some of those people, after the first heart attack, change. But they didn't change because their wife nagged them because she did that for 20 years and it had no effect. He changed because he couldn't get up.

So that is what we are looking for here is a life changing event. For these kids it's going to be why can I do this at school, why can I do this at the library, why can I do this at so

and so's house, and I can't. I can't tell you how many computer upgrades come because the neighbors kids will run a game that this kids can't. I need a new video card, I need this, I need this, I need whatever it is that I need. But I need what I need. Great I'm all for it because I do know know where they are at. I may not know what they are doing but I do know where they are at when they are on the computer. Questions, I guess one last thing is finite money. Until Obama got elected finite money meant that there is only a certain amount of money. But now that they are printing money the feds are able to trickle down some money which is good for us. Because at the local level we still have finite money, you have finite money. So how do I, at a local level, the same way how do you decide on the best bang for the buck. Because remember public types of services [i.e. police, fire] right if they don't get money when women and children die. Public works they don't get money we have no roads. The softer things like IT gee we don't get money then you don't get a flat screen. But how do I say I should run fiber, because here is my payback...or how do I say no because what I really need to do is provide money so money gets funneled into lunch programs. Same thing for the school district where does my money go. You have got to help direct that because we work for you. We work for the populace. We work for the people who live in the community. You have to help make those decisions on how you want your money spent and where you want it to go.

Now there is always a trust piece to that. One time I heard an elderly lady wanting to argue the coefficient of slope on a sidewalk with the city engineer because she thought they didn't' drain quite right. I'm saying let that one go, but if you as a group say we think there is vision out here that will do more for our children, and I think as an organization and as people look to the future. Don't worry about you. We are about the next generation behind you. Because anything you get in place is getting things in place for them to have built this bigger base of it for longer, and they will build who we are and what we are on that base. We can always entertain ourselves, but the decisions we make will impact them. If we are wasteful they will pay for it. If we are creative and innovative they reap the benefits of it. But those are your decisions and it never hurts to help the people that you elect make those decisions. They are going to make the best decisions they can. Nobody is out there making bad decisions for fun, but they are based on their belief sets, their mind sets, how they were born, how they were raised, how they were treated. Who educated them? You are the whole you need to direct them. Questions, Thoughts, Issues, or Concerns.

Abdul: Could you start off by explaining organizationally - you are part of the city government. But the school system, the library system, they are related but they are separated entities.

Bill Dejarnette: They are separate taxing bodies and the library is hooked closer to the city than the schools district it. Interestingly enough in Urbana the park district is its own governmental entity. In other places it's not it's folded into the city. But that is the nature of Illinois. Illinois has the most governmental bodies of any state in the union. Everyone has their own thing. But we share a couple of things. We share the same tax base; we share the same constituents so a lot of our actions and directions run in parallel because we got the same group of people with the same basic needs behind us. So they tend to all push us in the same way. But the library is somewhat tighter and our [city] council is the council that runs that, but it's a very hand off environment. They do their own thing the way they do it and I guess that's why it's called the Urbana FREE library because it's free of all of the restraints from the city. Organizationally interestingly enough, we are an IT department that is technically in the finance department. A lot of cities are still like that, some have gone through the emancipation process and now they are their own department and I can tell you a side story in a second. But that stemmed from the fact that most cities most IT stuff came originally out of general ledger/payroll. So IT was hooked in because that was all they ever took care of. Making sure that systems were up and that general ledger got done. Payroll got done and people got their checks. Then it started to expand out from there. Because more department wanted to do things, you started hooking terminals up and now you have got an IT department.

My IT staff is pretty small considering we are a developmental shop. Threes myself and one network admin. I have two full time tech staff; I have a programmer who programs the city of Urbana's functions like payroll, general ledger, and all these things. I have another programmer who programs all of the police records and stuff. We run a tight ship and we also provide IT support for the Urbana Park district with that staff, Cunningham Township with that staff, and also Ileitis, which is the Illinois emergency alarm system. Which handles most of the grant distribution. They are housed in the old nursing home. So we find ways to generate revenue and revenue streams, which has been very helpful for us. Because when I go off and do my own little thing on fiber I've been able to do that and keep it within my budget. Now obviously I'm moving things around over time. But nonetheless we are able to control that and we look at those dollars very clearly as to know this is not a five year capital project, this is not a ten year capital project, this is NOW. And that then allows us to do it NOW. So a big difference when you are looking at 8 dollars a foot instead of thirty dollars a foot your budget constraints are completely different. When you are looking at marrying into another organization, and dragging your joint costs down to four dollars a foot, that starts to get into a lot of peoples budgets and make sense. We are a fairly small staff, but this is where we are at. One of the keys for us with our network is from a PC side. We group up in an IBM shop originally [makes references to models of machines] but the reliability was unimaginable. It's up it's always up 24/7 for years. So we said why we would build a PC network that doesn't emulate that. We already established the bar with this other stuff. With this old synchronous

communication green screen environment. I'm sorry everybody expects it to be up, so it's up and our PC network had better function the same way. So these concepts are how we want to live. We really expected always to be there. That has helped us tremendously. Because in keeping it simple our staffing needs are fairly simple.

Audience Question: You said you went out on the UC2B Survey. Did you go into areas of Urbana that you are familiar with, or did you go out into Champaign?

Bill Dejarnette: I did both. I went wherever they sent me and then on Saturday I got involved in hitting on what we decided was key target areas. That we needed to confirm our numbers in so I was all over Champaign and I was all over Urbana. I got to see a nice mix of things. I was in when they ran a lot of the numbers so I saw a lot of the data that was coming in.

Audience Question: Going into areas in Urbana do you think it opened your eyes and informed you in your day to day job in participating in the survey?

Bill Dejarnette: Well that is a good point. I think the key is we have to make assumptions in order to live. We all make certain assumptions, this is how it's going to be I don't go to certain places after 2AM and we make assumptions that may not always be right but they are good ones to live by. So when you go out in the neighborhoods its critical to, for lack of a better term, to take a step back and make sure that what you are seeing makes sense. Are the answers you get consistent with what you thought they may be? Really look at these things and ask these questions then when you start to see these patterns go why are these like this and all of a sudden you are able to start putting these things together and saying okay why does everybody have a cell phone? Well we know why they do. Why do more people have computers than we imagined would have computers in [these neighborhoods]. Well we know why they have them. Because Urbana says there is no redlining when we put in Cable TV. Everyone knows what redlining is. Redlining is saying that just because this area is low profitability probably to you based on what you think...TOO BAD because you have to provide services into that area. So we get great penetration with cable TV all over Urbana. So pretty easy for Comcast to then piggyback cable and broadband to those houses. So all of a sudden we found a tremendous number of places with Internet access. Everywhere, you couldn't go through a block and it didn't matter socioeconomically there where houses there that had broadband. Period.

Question from Abdul: Now is that a function of a question that the city council made to protect...

Bill Dejarnette: Absolutely that was years and years ago. That was a governmental decision that said you want a monopoly, well this is what a monopoly means to us.

Everybody has access, now everybody may not buy it. But if they want it they can have it. It wasn't Comcast back then [when the decision was made to block redlining].

Abdul: So there are two kinds of cities that you can live in. One kind of city where the government makes that kind of egalitarian decision and there are others environments where this disparity would be allowed to exist.

Bill Dejarnette: Well AT&T's new environment. That build out will be much slower they are based on the state rules and the state has come up with a set of franchise rules [where] there is an expectation of build out. But it's long. So if I'm going to pay for that and this goes back to all of these other things. Somebody has to pay for things. Well if I can set some rules out here that say eventually you have got to serve everybody am I not better off allowing them to build in areas that will let them generate the revenues so they can then build into these other areas. The money has to come from somewhere. [Refers to companies starting in areas that will bring profit first before extending it] What we saw with Comcast is that knowledge will drive that need anyway. There will be a greater percentage of families who will say we want that. Is it available we want that? We have got our broadband project out there talking about Fiber to the Home but don't for any point think that Comcast or AT&T are not fighting this one two levels. One of which will be disinformation potentially and the second will be technology. Their technology is not going to stand still. I mean Comcast already had jumped up and said we are going to provide 10 megabits to your home. Now not every home is getting that, but they said the possibility exists that you might and people are going with that. It's hard to make changes.

So the city did a great thing and said we would not redline, but what it did was impact the heck out of those surveys. What started out as 16000 houses which would help us qualify it dropped like a stone to houses that actually met the criteria once we got out into the field and going door to door. Now on that and we talk about technology we have areas of town with high density my contention would be broadband to every single piece of property there given the high turnover rate, given the nature of the neighborhood, and everything else is not a good economic methodology. Wireless high end and high quality wireless blanketed into those areas is a much better technology because I can control all of that at the head end. I can add service, take away service, and I can bring in new people and take care of all of that and that is some guy sitting in a chair. Same thing with Comcast, same thing with AT & T's DSL. Your DSL now comes in on the same pair [of wires] that runs your phone. AT&T and Comcast will continue to invest in technology that will make our project have to fight to be as competitive.

Appendix K

November 19, 2009

Abdul: Welcome again to the digital divide lecture series. This is a point in the series where we are coming to a conclusion and, as we all know, the digital divide lecture series has been about the digital divide. What is it and what can we do about it. Today we are going to talking from the perspective of the state and just to remind you. The United States has a federal system and therefore the states are very important in terms of the allocation, and aggregation of resources, implementing plans for infrastructure and generally seeing to the life of the community. So when we are talking about broadband and high speed Internet we are talking about a great deal of coordination at the state level. Last week we heard a talk about the city level so these governmental units all have a role to play and all have access to resources in various ways. Today our presentation is especially important because the person who is speaking is not only from this university, and is not only a young man as you can see, but is a model for each of you. Because it demonstrates that all of you are headed towards very important positions in the library, in information services, and in public policy. In other words every city government, every state government, has to increase its hiring of people who are information specialists. So it's especially important for you to network with our speaker today. Because he, in fact, is I hope your tomorrow. So networking is important here.

Introduction by Classmate: Today it's my pleasure to welcome back to campus a recent alumnus of the University of Illinois, Ryan Croke. Ryan completed his undergraduate work in Political Science and Communications in 2005 and took a minor in information and technology studies here at the graduate school of library and information science. He stayed on at the university to earn a masters degree in communications. During his undergraduate years Ryan developed an interest in communications as a topic of public policy and particularly in increasing access to information and communication technologies for people with disabilities. While working on this thesis Ryan learned of an opportunity in the office of then Lt. Governor Pat Quinn for a new staff member with an interest in broadband deployment and the digital divide. Ryan began working for Lt. Governor Quinn in September 2006 as a policy analyst. Ryan finished his master's degree in December of 2007 and about a year after upon Governor Quinn's accession to the office of governor was asked to become a public policy advisor to the new governor. Earlier this month Ryan was promoted to deputy chief of staff. Throughout Ryan's work [dealing with areas of public policy] Ryan has maintained his focus on technology issues and he joins us today to deliver the last in our series of lectures on the digital divide. So please welcome back to the University of Illinois Ryan Croke.

Ryan Croke: Thanks a lot for maybe the warmest, the kindest, and the most generous welcome that I've ever had. So I really appreciate it and I always like coming back to

Champaign/Urbana and especially right here the graduate school of library and information science. When I was an undergrad I took some courses here, pursued a minor, and I was an outsider. I was this political science guy interested in communication policy and I always found that the students were kind, very open to sharing ideas with me, including me in discussions that took place during and after class. I just think maybe it's the field that kind of fosters a feel of genuine collaboration and so anyways I'm really grateful for the opportunity to come back and share some ideas with you. Get your thoughts about what we are here to think about and keep in touch after it's all said and done. As professor Aklalimat explained I've been working, as Joseph kindly provided an overview of, I've been working for Pat Quinn for a little over three years now. From the beginning my mission was to understand the technology landscape in Illinois. Not just with respect to broadband deployment. But with respect to access to the tools of the 21st century. So while I do have a very specific focus and have spent a lot of time, for example, working as a staffer on the Illinois Broadband Deployment Council, my interests are much broader and consistent with many of yours in that we have a responsibility to not just think about infrastructure at the state level. But to think about how infrastructure can be used to improve quality of life for people in every part of the state. Whether they live in a rural area, whether they live in a low income community, whether they are part of a vulnerable population. My own interests in technology and in particular telecommunications technology goes back to the fact that both of my parents were born deaf and my life and our families lives where really transformed when we began to use video conference technology to talk to one another. Because when I was a freshman at the U of I if I wanted to send my mom a message it was by email, or by letter, or by calling an operator who had to type everything I said to my mom through a tele typewriter. Then that interpreter would read to me everything that my mother typed. So as you can imagine this is kind of an awkward and unwieldy way to community. So then we got video and then our world is upside down for the better. Just a small and, by today's standards, a very crude technology.

So that is kind of what got me interested in public policy and communication and information studies. They intersected in my life in a really interesting way. So when I got around to going to grad school and thinking, what am I going to do in this program of communication? Well I thought write about what you know about or at least what you are interested in. So I began to explore the question of what is it that prevents more people in the country, in the state, in my own community from experiencing and enjoying the kind of life improving communication options that my family can now enjoy and I got to learn about the digital divide and broadband deployment and, out of the blue, my friend who was a grad student in the geography department sent me this job posting from the department of urban planning that got posted from the Lt. Governor's office. So anyways that is just a little extended background for you just to give you a sense as to why this young guy is here to talk about what the state is doing. There are a lot of people who

work for the state, a lot of people who work for the governor; I have kind of a narrow niche inside of our office which has been terrific in many ways. But I think it's mostly a result of trying to find out what I really like doing and then going after it and a lot of good timing. So what we want to do is just to quickly run through from a state level what some of the challenges are, what we have tried to do to overcome some of those challenges related to digital divide, infrastructure and related questions. What remains and what has yet to be done.

So we start with a map. This map is produced by the Illinois Commerce Commission. Every state has a public utilities commission responsible for regulating public utilities, gas, electric, telephone service for consumers throughout the state. So our public utilities commission is called the Illinois Commerce Commission and each year they are required to publish an annual report on telecommunications competition in Illinois. So in the last several years they have put out a map that attempts to use the best available data. That is a question that I know you probably talked about already to plot where in the state within zip codes where services, broadband services as defined by the federal communications commission are not available. So this map give you some sense and, as you can see, there are some colored areas on the map that reflect parts and pocket of the state with less high speed internet service than others. Again this is one tiny fragment of a larger puzzle, but just as a reference point. So this is a challenge for us. There are still parts of the states where, even within entire zip codes there is not a single provider of telephone based DSL Internet service, cable based broadband service, or any other reported high speed internet service, and that's a problem. This again only reflects what is available to residential consumers like you and me in our apartments and our homes and it doesn't tell you about what's available to schools, and hospitals, and libraries, and other institutions, that need much more robust bandwidth than you know we need in our homes. Just as a quick set of facts, broadband deployment, the adoption of broadband service is significant and has been growing rapidly for many years including in Illinois. So while we could say high speed connections in Illinois have grown almost by 700 percent in a five year period, dead zones persist as we saw here. You go to certain schools and you find that students have much better access to technology and resources than students in other schools and, of course, at home.

Some of our problems are here, schools, home, and then just general infrastructure challenges where you go to a remote part of the state and maybe you can get a satellite for Internet service but it's costly. It's not reliable and there are lots of parts of the state where you may only have a cable company that is offering you a high speed internet service or only have a telephone company that makes it available. So in many places there is very little competition aside from all of those places where it's not available at all. So the state over the last five or six years, before I was even a twinkle in the governors eye, tried to tackle this problem in a lot of different ways. So the commerce commission

at one point had a fund that they used to provide seed money to high speed network providers to build infrastructure in parts of the state that were less well served than others. So this map just shows you some of the projects the commerce commission funded. They had at one point a fifteen million dollar fund that was the product of a huge telephone company merger. I think that when SBC and Ameritech merged the commerce commission has to review those big mergers. One of the conditions for changing the competitive scene in Illinois was for those big companies to put up a sum of funding into an account for the commerce commission to be used for purposed that the commerce commission deemed to be in the public interests. So this is one of the ways in which the commerce commission attempted to do that. Some of these projects have been successful others have been less successful, but both were aimed at improving the technology that the telecommunications infrastructure in these part of the state. Our country has a great history of providing, some might argue a not so great history, of providing subsidies to companies to build infrastructure. Because it's been determined that building infrastructure basic utilities is public good.

Another thing we have done and this was more specifically in the office of the Lt. Governor was to fund community wireless projects. So Lt Governor Quinn thought it was a good idea and as did many communities throughout the state to seed wireless networks. Small wireless hotspots areas in typically, historically, downtown business districts in several communities throughout the state. I thing thirteen total grants have been awarded; this is an advertisement for one particular location that received a very modest grant. They were all twenty thousand dollars or less so here is one from [delvo] Main Street where you can go to the coffee shop and get online, thanks in small part to the office of Lt Governor Quinn. Next to tackle the challenge of public computing center availability and access to tools. Tools that you can hold in your hand and learn from. State Representative Constance A "Connie" Howard, from the city of Chicago, had been a really terrific champion for the growth of public computer centers in Illinois. She is to be really commended for this because it's no accident that today in the American Recovery and Reinvestment Act, the stimulus package and we will get to that a little bit down the line here, there's two hundred million dollars at least available to do exactly what she had the idea to do along with certain other members of the legislature, supported by then Lt. Governor Pat Quinn, to put technology in the hands of people in communities, in public locations, with training available. This is something that Illinois is a leader in this area. We have more public computing centers that are state funded than any other state. It's thanks in large part to the idea of just a few people who said, before we had a stimulus act or a recovery act or a president with a great vision for technology and society, to do this kind of thing. Another example of Illinois kind of being a pacesetter or being a little bit ahead of the curve is here in Macoupin and Montgomery counties, we are here in Champaign County right now, Springfield is in Sangamon County.

Just south of Sangamon County is Macoupin and Montgomery County, these are mostly rural places where in most areas of those counties if you have access to one high speed internet service provider you are in pretty good shape. In a lot of parts of those counties you have no options or maybe you have a satellite internet connection. That's always the kind of plan B for people who are in really rural areas. At any rate the Vince Demuzzio broadband pilot was an idea that kind of came together because of Lt. Governor Quinn, some officials in Macoupin and Montgomery Counties, at the county level. Vince Demuzzio was state senator he passed away I think seven or eight years ago. His wife is now the state senator who represents the district, and Vince and Pat Quinn went back a long way. Vince Demuzzio was a strong voice for downstate and rural Illinois. So the Lt. Governor's office worked to secure a small sum from the state budget. It was a million dollars. It's a relatively small amount in the grand scheme of state budget. This project is as it turns out is a model for what the recovery act, the federal stimulus, which is pouring most of its technology related, broadband related money into infrastructure. Basically what the state did was to say you are two rural parts of our state, they need better broadband infrastructure, we the state of Illinois in partnership with these counties, local officials, our state IT department. We will offer to the broadband infrastructure backbone network service providers of the world to come to Illinois and provide service to these two rural counties. We will give you seed funding to come to a place where you might otherwise not want to serve and sure enough we had six bidders, most of them not from Illinois, who said yeah we are interested in those two counties if you are willing to provide some financial incentive we will be willing to consider coming to rural Illinois. The state awarded a contract, now in partnership with the state IT department, a company called Norlight telecommunications is partnering with Motorola for the equipment, they manufacture all sorts of broadband infrastructure related, mostly wireless equipment, and any local internet service provided called Royal communications which is based right here and they will make robust internet service available for people in those two counties. Not just people in their homes, but hospitals and libraries and business, and places that anchor the communities. Again, this is all pre-recovery act.

The Illinois Rural Health Net is another project, this is federally funded and the idea here is for the state, using a federal grant, provided by the federal communications commission to construct a telemedicine network which connects all of these little dots which represent Illinois healthcare facilities in the state to one another and to places outside of Illinois. The Illinois Rural Healthnet represents a consortium of twelve different colleges and universities that includes over 90 hospitals and health care facilities in the state. They are going to make it possible for somebody in Salem to connect with somebody in Chicago when, for example, a doctor needs to send a CT scan quickly and get someone to review it. Those kinds of things will be possible thanks to a lot of planning at the state level and help from the federal government.

Again, on the subject of technology there are tools that you can put in your hands the Lt Governor has been a big champion for improving school and classroom technology for young kids. So you don't have to wait until high school, or college, before people in our state start becoming proficient with technology. Finally, after Pat Quinn became governor we were able to pass the Illinois Children's low cost laptop act, which calls on the state board of education to administer a one to one laptop computing program that will make it possible for individual schools to apply to the state for funding to provide computers like these, a netbook, a computer that doesn't cost two thousand dollars can teach a small kid a lot about computing and help them to become literate in a world that is dependent on technology. Just one quick point on this we went back and always, when there is a bill or idea that you want to turn into law, you have to wrestle with a lot of different interest. So in this case, there were some interests who thought 'well you know these low cost laptops, I don't know if they are really capable of preparing kids for the 21st century', just so you know the whole rationale for low cost was so that our state and a lot of other states have, in the past put a lot of money, and we have limited resources, into computers programs where we end up spending far more than most consumers would tolerate personally. Who spends two thousand dollars on a laptop anymore? Nobody except if you are making a large purchase and nobody is looking at the details very closely. We said no more of this stuff, we only have let's say one million or one hundred thousand dollars for laptops in schools. Let's get as many laptops in the hands of as many kids as we can. So we put the emphasis on low cost and the argument centered on why we need to do that. [Refers to expensive programs like Dreamweaver etc] So my argument to them is well I grew up not that long ago, and our first computer in our house was pretty crude. It didn't have a quarter of the processor speed or the storage that this little net book has and I became fairly proficient at the basics. I know how to copy and paste and type and browse the web and that is really what you want everyone at least to get to that level. So I had to keep reinforcing that. Hey you guys were here ten years ago they were terrible and we still were able to learn the basics.

In a democracy we try to make the web infrastructure of the state better and we have a long way to go. A really long way to go, but we are putting a lot of information online today than we used to in Illinois. In some ways we are really following the lead of the president on this. You know with respect to making data open to scrutiny we are really trying to keep up with the White House on this. Just a couple of examples, the state transparency and accountability portal allow you to look up contract information, salary information, of any state employee. So as a state employee you can never be squeamish about what your salary is. Because it's public information it always was now it's just a lot easier to get your hands on. [Asked if it includes the university] I don't think it includes the university, it might, but I don't think it does. My first assignment in the office of the governor was to learn about the boards and commissions operations of the governor's office. So I kind of had to put my interests in other technologies and stuff on hold for a

bit in February and learn all about the boards and commissions responsibility of the office of the governor in Illinois. As I learned governors in Illinois are responsible for making appointments to over three hundred different state boards, and councils, and commissions and task forces. In the last administration, and I guess in all administrations before the last, if you wanted to learn about a board or a commission or a task force you had to know somebody or in a few cases the boards had their own websites. But this is over three hundred boards mostly locked away in filing cabinets on the second floor of the state capital. So today you can go to appointments.illinois.gov, you can see a list of every board the governor is responsible for, who is serving on it, how long they have been serving, what the requirements for serving on the board or, what the compensation if any for serving on the board is, and just so you know there is only about twenty boards that are paid in any way. Of those I think there are six full time paid boards. Most of those are not very lucrative but they're a lot of people who want to serve. I think within the first month of putting this site online we had like over 1500 individuals saying sign me up I think there is something great out there that I would like to be a part of. So this is terrific, you can apply to serve up to four boards on that list.

This is a part of making state government a model of what can be done, how we can use good broadband infrastructure, how we can use good technology infrastructure. Make information that the public is entitled to easy to access, but we got a long way to go. I fully acknowledge that and welcome your ideas on it because it's something we have to do everyday. There are mountains of information and, to your professor's point. This is exactly why your expertise is so important. Your perspective as informatics specialists, as librarians, as people who have an appreciation for organizing large amounts of information it's so important. It's more important now than it has ever been just for state government. Let alone libraries and every other enterprise in our society. Just the role of this school will continue to grow in importance as the years go by and there are more efforts like these. So he is right.

In recovery.illinois.gov it was a site where members of the public, before the details of the American Recovery and Reinvestment Act, where we said to the people of Illinois and the people anywhere that if they had any ideas for a stimulus to send those ideas here. So we have also, I'm zipping around here a bit and if you have a question just speak up, the broadband deployment council is one of the 300 plus boards and commissions councils and taskforces that we talked about. It was the one that sort of helped me get my foot in the door in state government. In July of 2008 the council published a list of recommendations aimed at overcoming some of the challenges that we talked about when I got started. They made recommendations towards policy and infrastructure and made demands for service. So I tried to give you a sense of whats been accomplished, whats been recommended, and now I would like to turn to based on the recommendations here

what we've done and try to do in a chronological way, but I will jump out of order a little bit and, again, interrupt me if it doesn't all connect.

So one of the big recommendations of the council and some of the subgroups that made suggestions for state policy was to plan infrastructure in a smart way. Don't just use the Department of Transpiration to pave roads and repave roads and then when they start to decay, just pave them again and that is the Department of Transportation. Do things in a smart way so that when you tear up public infrastructure don't just lay concrete, put down fiber optic pipes, so as part of the capital bill that passed in July, and a capital bill is like a public works program, it's a way to improve public buildings and infrastructure. So one part of that was [including] all sorts of rules for this public works program and one of them was. That when the Department of Transportation opens trenches or bores alongside any state owned road, highway, bridge, train track, whatever it is, they are required to lay down fiber optic duct or conduit or pipe. The reason for his is one of the barriers to network deployment is that the cost of trenching is overwhelming to a lot of organizations who would like to make 21st century world class networks available in all of the parts of the state. So in Illinois it's now the law of the land when we take on a public infrastructure project we ought to plan to lay duct where it doesn't already exist. We don't put it there if it's already there.

[Even though the pipes are empty] the law doesn't preclude the state from including fiber optic cable within those pipes. Because that is more costly but what we want to do is make the infrastructure available to people who want to manage the digital infrastructure. Where it makes sense for the state to include fiber optic cable within those pipes they can do it. The state has the authority to do it. If it's the department of transportation, or the state police, or the toll highway authority, they can do it, but they are not required to do it. They are required to put down the pipes where it doesn't already exist.

So that was one idea that kind of pre-dates the recovery act we were able to include in our capital bill. Now fast forward to 2009 we haven't really talked about this yet. It has fundamentally altered what we have thought would be possible in 2009, 2010, and in the coming years. The American Recovery and Reinvestment Act include significant investment in technology. So I want to give you kind of a high level snapshot of how the funding breaks down. The US Dept of Commerce and the US Dept of Agriculture have money to work on improving broadband networks in the country and providing support for related efforts. So the related efforts include public computing centers, mapping and planning, sustainable adoption efforts, and infrastructure. Now these terms might not make too much sense, but that's ok. What's really important to know is the bulk of this roughly seven and a half billion dollars is for infrastructure. I mean that's without the foundation why bother with everything else that is what this says to mean. Maybe it says something different to you. When you are talking about seven and a half billion dollars, four percent of that is still pretty significant, three percent of that is very significant.

Three percent is for public computing centers [which is] a two hundred million dollar investment minimum. So the funding this 7.5 billion dollars is broken in two rounds. The first round of funding and I know you guys have heard from Peter Folk, from Volo Broadband in town, and you know about the UC2B project. So they're and lots of people in Champaign/Urbana are in the thick of the first round of waiting for answers about what projects are going to receive federal funding.

First round most of the funding is for infrastructure, although most of it comes from the USDA. I think the USDA has the authority to spend about 2.4 billion of their 2.5 billion dollar allocation, and the NTIA, which has most of the money. They [NTIA] have 4.7 closer to 5 billion for these projects. Five billion dollars which boggles the mind. There is a program that we will talk a little bit about called the universal service fund. It's existed for a long time and it far exceeds what we are looking at here. So most of it is for infastructure, again some of it is for sustainable adoption, public computing centers, and broadband mapping and planning. This is the nationwide effort to provide a comprehensive map of where broadband is available, how fast it is, how many providers there are, and so forth, and to do it in a way that's publicly available and all that good stuff. So round one is roughly 4 billion. We should start learning in early to mid December who will win and who will lose. There were over 2000 applicants for just the NTIA funds, the US Department of Commerce funds and the demand for this money I think outpaces by sevenfold the amount that is available. So I think it's exactly that. There is four billion dollars available in round one and you had 2200 applications for it. Those 2200 applications represent over 28 billion dollars in requests. Maybe 24 [billion] in that ballpark. Next round [of funding] as you can see is infrastructure is going to be where it's at. Three and a half billion most of it from the US Department of Commerce and again funding for these other areas, significantly I think for people with an interest in libraries, is the public computer center segment here. In round one there is only 50 million dollars available for public computing centers. In round two there is 200 million dollars available to public computing centers at least. The Illinois State Library Association I believe is trying to put together a comprehensive proposal that would represent all of the libraries in the state in some fashion. So to the extent that you are interested in public computing I think there will be some really great opportunities in round two to get involved.

We expect that round two kinds of applications and the application window will open up in the middle of January/February at the latest, and there will be a new set of rules for the second round. I think the rules will only be tweaked but we can talk about that. So in Illinois we try to provide a lot of support for our applicants for all of these programs. The most significant was the fact that we provided matching funds to projects. So the UC2B project for example ended up being one of 16 projects throughout the state where the state made a commitment. The state committed to 16 projects and you have to put together a huge mountain of information to get to the federal government when you ask

them for money in these cases. So what we did was say in Illinois, we want to make our applicants successful, we want to make Illinois successful, good outcomes for the state when it comes to this program. I think unlike any other state Illinois committed to exceptional projects where if they could show us their project budget, they could show us some sense that the project was sustainable, and enough details for our state review program to do a fair and comprehensive review then we would invest in that project. The funding for recovery act applicants came from the public works bill. The public works program that passed in July. So we committed to 16 projects there was a pool of 50 million dollars to support Illinois applicants in this way.

The state committed to 16 projects and UC2B is one of them and those 16 projects represent 41 million dollars of state commitments. Those commitments are contingent on federal awards being made so if one of those 16 loses in round one, and many of them will, it's just a fact of life since there are more applicants than funding at the federal level. Then that money goes back into the pot for round two where Illinois applicants can again, come to the state and say hey we have a great idea the state should invest in us. Then that sends a message to the federal government that the state is behind us and that we got our act together. I should say that one of the criteria on which these projects are being scored is local match funding, so if you are asking for 10 million dollars from the federal government for a broadband infrastructure project you're supposed to come up with at least twenty percent of the total project budget. Which is a huge deal if you can come up with the local match. You spend one dollar you get five back to do your project. The second big area that we have supported applicants in has been in grant writing. So if you are wrestling with the requirements of the federal grant there is a network of university affiliated grant writing experts willing to help applicants and organizations prepare what they are trying to do?

Here we have the public computing projects that were committed to by the state. There are nine of them, and a few in Chicago. If those are funded then we bring 19.5 million dollars in computer center investment into the state. Here are the infrastructure projects that we are both committed to and that are highly recommended by the office of the governor. Another area in this whole milieu that we had to wrestle with was providing recommendations to applicants. So we had the state commitment process, we had the grant support writing available, and then the final thing that the government asked every state to do was give them a list of highly recommended projects. So this map shows you the highly recommended infrastructure projects in the state. These infrastructure projects, if funded, would represent 536 million dollars in infrastructure investment in Illinois. This was an enormous challenge for state government. Because what happened is the NTIA, the US Department of Commerce, more than half of the federal funds that were available for broadband through the recovery act they came to every state and said send us a list of projects that you recommend, but gave very little guidance to the states about

how we should review them, what kind of information they wanted along with the recommendations. [There was] very little direction and very little guidance. So what we did was to put together a panel representing eight different state agencies. Everything from public safety to education, healthcare and family services, the department of transportation, we had all of these people from different perspectives weighing in on requests for federal funding for broadband projects. They scored them using the same criteria that the feds are using to score the projects. I think we produced a really great list of 33 projects out of over 140 that we sent to the Feds and said we really would like these to be supported. We are proud of that list.

A little over one year ago I talked in that room just across the way and I think it was November 12th of last year. We had this slide the future of Illinois Digital Divide policy. I'm going out on a limb a little bit here because I wasn't right about all of my predictions; I said what was the future of Illinois. This was before the recovery act and I said three ideas. One was the high speed internet services and technology act. This has been less significant than I thought it would be. The children's low cost laptop act - check - we got that passed it's a law in Illinois now and the state board of education will administer it. The Illinois Telecom Act which governs telephone service primarily in the state has been much less of a factor than I thought it might be one year ago, again, because my central preoccupation when it comes to digital divide policy in the state has been on maximizing Illinois's success in this recovery race, this recovery act competition for federal funding. So that is what I said last year. Right now we still have a lot of unresolved challenges to overcome. One of them is pole attachment problems. One of the barriers to network deployment in Illinois and every state is the ability of network operators to attach wireless network equipment, not even necessarily wireless network equipment; it could be fiber optic cable, to utility poles. So we attempted to streamline the process in Illinois for attaching equipment and broadband related appendages to utility poles. We ran into very stiff opposition from owners of utility poles. Surprise Surprise. That is one challenge. Another is railroad crossings. Several network operators in the state have complained that it's difficult to bore underneath a railroad in Illinois without going through a whole lot of paperwork, and delays, and costs to get railroad right of way owners to say we are going to help you do this, network deployment is really important. So that is another unresolved challenge in our states and a lot of states.

Question: Who owns the poles and who owns the rights of way?

The poles are owned by municipalities in some cases, but mostly they are owned by utility companies, so these are your gas and electric companies like Ameren and ComEd and also your telephone and cable companies who provide telephone and cable service like AT & T and Comcast. They own the poles and the right of way on the railroads are owned mostly by railroad companies like Burlington North [et. al] it's a motley crew. But I will say this, the railroad industry, the railroad association in Illinois, has been willing to

work with the governor's office in good faith to try to resolve this challenge. To prove to the federal government that Illinois is progressive when it comes to expediting the development of broadband networks. So we are working on a memorandum of understanding rather than resorting to imposing a law with all sorts of heavy handed requirements on those industries. I think we are going to overcome this challenge and make it clear to the railroad industry, the utility pole owners, and the broadband network operators of the state that we can all work together to build infrastructure that is in everybody's interests. That has been our argument all along.

This was my prediction last year about national digital divide policy. Universal service, fund reform, spectrum policy, and broadband measurement. I would say I was good on two of three. I still think spectrum policy is very important and there are still a number of proposals on the minds of broadband advocates, and enthusiasts, and entrepreneurs in the country. Universal service and fund reform has become a hot topic. Again broadband measurement is being federally funded to the tune of 350 million dollars thorough the recovery act. This broadband data act provides guidelines for measurement and my last prediction was new administration, new hope. I have to say I nailed it there because you know here we are seven and half billion dollars later I did not see that coming. I remember walking in the state capitol on the day the American Recovery and Reinvestment act was proposed and we found that there was over seven billion dollars for broadband deployment and seeing some of the industry lobbyists, the incumbent cable and telephone company lobbyists and saying "Hey how do you like that seven and a half billion dollars" and I was just really excited about it. You know we were coming through on a big promise of the campaign. You know we are going to take 21st century infrastructure seriously and, sure enough they put their money where their mouth was and you don't always see that. So I was hugely enthusiastic about that it turns out that the like of AT&T and Verizon were less enthusiastic because they haven't applied for any of this federal funding and I say that not to be crude or mean-spirited to AT&T or Verizon or any other big company. My dad works for AT & T and has for 20 years. They helped me get through college. But they have interests and jumping into the recovery act stimulus fray is a huge risk potentially for them. So it will be interesting to see how the incumbent providers of broadband services will act in round two. Maybe they are just kind of waiting and seeing what everyone else is doing before jumping into the fray. Anyway those are my predictions from last year.

Going forward again on the universal service fund. The universal service administrative company oversees the multibillion dollar fund that I said dwarfs what is available in the recovery act for technology. They run through the universal service fund something that provides subsidies to rural areas, low income consumers for basic telephone service, schools and libraries through a program called E-Rate. They also help to fund service to

health facilities in certain parts of the country. But the bulk of the spending of this administrative company, that is basically a contractor that manages a huge federal fund, the bulk of their spending is for remote areas or I should say high cost areas and I put them up here very prominently because they run the universal service fund and the universal service fund as I mentioned here has been under assault for some time, is in need of modernization, it's been focused primarily on old school telephone service, and so we have to modernize the universal service fund which is bigger than any of the recovery act funds this will be a big topic in the coming 12 months. The universal service fund which is administered by USAC [Universal Service Administration Company] I predict will be reformed in the next year or two at the most and they are going to be taking input from all corners. So if you are interested in that kind of thing watch and provide your input. Then I'm providing a plug down here for the coalition of organizations for accessible technology which is a coalition organized around making sure that media and other communications technologies that are publicly funded are accessible to people with disabilities and they will have a strong voice in the debate over universal service fund reform and rightfully so. So that's it keep in touch there is my contact information. I welcome your questions or thoughts.

[During the Q & A session Ryan addressed how the conduit that is run by IDOT can allow third party companies to run fiber through the conduit. Additionally there are proposals in the US Congress that would deploy conduit on federal road structures. He also told the audience that anyone, in the audience, who is interested in participating in the broadband counsel, is welcome to send him their email address in order to be added to the list. It's a public meeting and the governor likes to encourage participation and collaboration from all places and all ideas. It's a different way of governing than what a lot of people in Illinois are accustomed to. Network of people at the state level who are interested in technology and policy. Groups within that umbrella of people in the broadband mapping program.]

Appendix L

Digital Justice Coalition – August 31, 2006

Location: Champaign Public Library

Field Notes taken by Martha L. Wilkinson

Applications were submitted to get stimulus funding for a broadband project to be extended into underserved and underrepresented areas in the Champaign/Urbana community. Concerns were expressed that the 'voices' of the community being most impacted by the initiative were not included in the grant writing that was done in the effort.

Information about this initiative can be found at http://cuopenaccess.org/ and I received 'cliff notes' of the grant proposals last night at the meeting. This involves a Public Computing Center and Sustainable Broadband Adoption Application Overview and a Infrastructure Application Overview.

Concerns addressed at the meeting:

IMC (Independent Media Center) participants felt shut out of the application process

Lack of transparency/access to relevant documents

How does the grant proposal benefit everyone?

Currently there are three legs in this initiative – the University of Illinois, Champaign, and Urbana. Danielle Chynoweth suggested that we need a "fourth leg" comprised of community members who are part of local community and social justice efforts.

How to go about building this fourth leg? I suggested contacting Aaron and Carol Ammons from CU Citizens for Peace and Justice. Carol is also the elected representative for her district on the Champaign County Board. Another individual suggested contacting the city council representative who was elected to serve the "north end" of Champaign.

If the grant gets approved and there are jobs brought into the area – Danielle pointed out that she didn't want to see all of the jobs go to college students from Naperville when there are community members who would benefit personally and professionally from being employed. Dr. Abdul Alkalimat stated that, as the grant is proposed, at least two thirds of employees will be drawn from the Champaign/Urbana area and surrounding communities.

Dr. Abdul Alkalimat, U of I Professor, is involved with local efforts and has an extensive background in the research and activism regarding the digital divide and how technology has historically impacted African Americans and other marginalized citizens in the United States. Dr. Alkalimat emailed me one of the resources he put together from work he did in Ohio.

Recently volunteers did door to door canvassing in the community and gathered survey data. Dr. Alkalimat said that there will be a lecture series (open to the public) at the University of Illinois and the results of the survey will be shared.

Closing the digital divide in Champaign Urbana

If the funding is approved then Fiber to the Home (FTTH) will be run to approximately 4,650 households and 218 businesses. Then the fiber will be run throughout the community so that hospitals, schools, police, and fire stations will be connected. It is proposed that a "Mad Lab" run from the Graduate School of Library and Information Sciences from the University of Illinois and other labs to service the community will be available. Once everything is interconnected the vision is that we will see tangible benefits in terms of job and computer training happening in underserved areas.

Another way to describe this would be in the form of a reverse business model. For instance, when I worked for the cable company and cable modems first became available I had to wait a few months to get service because I did not live in a profitable neighborhood. However, in this model the poor areas get the technology and then it will expand to include the parts of the community who are more affluent and who can pay for some of the installation costs associated with this.

At this point it is in the application phase and it may be some time before the community finds out if we have made it to the second phase of the process. From a communication perspective it will be interesting to explore and examine how one community is seeking to bridge the divides that exist in terms of technology and some of the cultural divides than can exist between a university and a community.

Appendix M

ILLINIPUNDIT.COM SINCE JANUARY 2005

Big Broadband Grant For CU

Posted March 2nd, 2010 at 03:03 PM by IlliniPundit

Potentially huge ramifications for CU (http://www.news-gazette.com/news/technology/2010-03-02/big-broadband-proposal-gets-225-million-grant.html) :

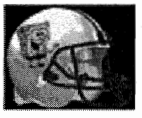
> *The clock begins ticking Tuesday for local governments to decide whether they are willing to accept a $22.5 million grant to fund the Big Broadband proposal after officials received word this afternoon that the project will be funded by the federal government.*
>
> *The announcement ends months of anticipation and gives public bodies 30 days to decide if they are willing to accept the grant.*
>
> *The Champaign City Council is scheduled to meet March 16 with a Maryland consultant who audited the high-speed Internet proposal. Champaign Mayor Jerry Schweighart in February said that there is a possibility the council may deny the grant.*

Discuss.

Comment viewing options

Flat list - expanded | Date - oldest first | 300 comments per page | Save settings

Select your preferred way to display the comments and click "Save settings" to activate your changes.



On March 2nd, 2010 at 03:14 PM, redstatewannabe said:

If the goals of the other accepted proposals are similar to CU's, this is a huge waste of $160,000,000 in federal dollars. It is also a big waste of local dollars - writing grant proposals, hiring consultants, trips to DC to lobby.

On March 2nd, 2010 at 03:21 PM, Anonymous (not verified) said:

City Council said that they were not taking any federal grants for anti drinking, so they cant accept this one either. Sorry, cant have it both ways Tom. This means

the Trolly is dead too.

On March 2nd, 2010 at 03:26 PM, Anonymous said:

what is the local match on this?

On March 2nd, 2010 at 04:14 PM, Anonymous (not verified) said:

Kinda odd that a big road in the middle of a cornfield north of town is not supposed to be the subject of "tit of tat" discussion according to the Chamber of Commerce, but a project with so many obvious benefits for everyone from the poorest family to businesses in our community is the subject of such ideological flim-flam and posturing in the Champaign City Council. I really hope that they do what's best for our town and not what's going to score well with a few cranky old guys down at the bar at the VFW.

On March 2nd, 2010 at 05:07 PM, Anonymous (not verified) said:

Name one benefit that this program has for those who have access to the internet and a computer.

On March 2nd, 2010 at 05:17 PM, pattsi said:

It is still not clear to me how this will help those with low incomes since there is no funding to help them purchase a computer, connect to the internet, and pay the monthly charge; let alone any up keep and up dating that a computer needs over time. For this amount of cost, one ought to be able to be far more creative to help the lower income citizen get connected to the internet. And just where are the matching funds to be found without increasing taxes by the communities and where will the university find this type of money?

Pattsi Petrie

On March 2nd, 2010 at 05:29 PM, JohnBoy said:

I thought we had a budget crisis....this seems to be an enormous amount of money to be spent when times are supposedly, " tough". It appears there's a lot more bucks floating around than one would originally thoght. What exactly is the local government's financial share if this grant is accepted?

On March 2nd, 2010 at 06:36 PM, Poor Richard said:

I think this project will probably duplicate to a large extent facilities that are already in place and owned by ATT etc. In the short term it may decrease costs for some public entities that now use ATT or another carrier. Eventually funds will be required for maintenance and technical upgrades. The mechanism for long

term support needs to be addressed on the front end. In my opinion, this is not the type of project that should have received this funding. Congratulations to whomever wrote up the application - they sold a boondoggle.

On March 2nd, 2010 at 08:07 PM, Anonymous (not verified) said:

Mr. Hulten, as a city council member would you vote to accept or reject the grant money? A simple question, no explanation needed, no "I have to consider all the options" bs from most politicians, simply, yes or no?

On March 2nd, 2010 at 08:58 PM, Anonymous (not verified) said:

Oh, yes, let's take the "free" money from Uncle Sam! Everyone's doing it, let's get our share! And you wonder why the feds are broke.

Big E

On March 2nd, 2010 at 11:59 PM, Anonymous (not verified) said:

Interesting. Propose a multi-million dollar road to nowhere and it hardly gets a flinch out of anyone west of Wright St. Propose infrastructure for the 21st century and it's like the October Revolution is about to break out all over again.

Both cost roughly the same. One is a a cookie-cutter example of yet another box of buggy whips and it's no big deal. The other is pretty near the bleeding edge of the Silicon Revolution, so advanced that the criticism posted here falls so far behind the curve it merely show how dueless the critics happen to be.

I'm just hoping that the Chamber of Commerce left the rubes here and took the smart folks to DC this week. When they're back, maybe they can explain how the benefits of UC2B leverage the small local investment 100x what the strip of concrete across the railroad tracks north of town that they also want does.

On March 3rd, 2010 at 12:28 PM, redstatewannabe said:

the difference, anon, is that gov'ts (typically) provide roads, while we have numerous private entities already providing internet access

On March 3rd, 2010 at 02:50 PM, Anonymous (not verified) said:

The issue I have with the "tradition" argument about UC2B is that the government, having acted as a protection racket for the well-heeled private buggy-whip purveyors of the internet for so long, should step up and establish a different model. Americans have NOT been well served by the market approach to internet service. The Koreans, Japanese, Europeans...I could go on, but all of them have far faster service at far lower prices.

The protection racket that passes for the "free market" here hasn't delivered for American consumers. In particular, companies like AT&T have cherry-picked high-profit areas for "improved" service that doesn't approach what others have come to expect for standard, universally available broadband service. This also isn't entirely about consumers. It's also held back entrepreneurs who could take advantage of better, faster access to consumers through open access on fast systems to bring us all new services.

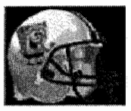
And our community would be better served. Why just the other day, we were discussing how to make our community better by drawing us together, making us more inclusive, providing more opportunities for youth...I guess that really is all talk, at least from some quarters.

But some people still like AOL...no one would keep you from getting it, you'd just get it faster, cheaper, better over the long run.

On March 3rd, 2010 at 03:04 PM, Anonymous (not verified) said:

Why just the other day, we were discussing how to make our community better by drawing us together, making us more inclusive, providing more opportunities for youth...I guess that really is all talk, at least from some quarters.

Boy, there's some wonderful bring us all together language.



On March 3rd, 2010 at 03:06 PM, redstatewannabe said:

there is a difference between protecting the buggy-whip industry (which I don't approve of) and starting up your own tax-subsidized buggy-whip manufacturer across town.

it is not a "tradition" argument, it is gov't undermining private investment

On March 3rd, 2010 at 03:10 PM, Anonymous (not verified) said:

Americans have NOT been well served by the market approach to internet service.

This is such a load of garbage. Telecommunications in the United States is not a free market, it is wildly overregulated and overtaxed by all levels of government.

Take for example Comcast, who is given a local cable monopoly by the very same folks who claim the free market doesn't work.

If this kind of nonsense power grabbing were not allowed to happen there would be a heck of a lot more telecommunications competition in the US, cost would be driven way down, and we'd be on faster networks. Bew hew, the cities might have to give up the ridiculous public access channels.

This is exactly why this rediculous proposal should be rejected.

If the cities were actually serious about expanding telecom access to underserved neighborhoods they would shut down the CU Cable and Telecom commission, disallow local cable monopolies, and get rid of the various taxes and fees the municipalities attach to everyones bills.

On March 3rd, 2010 at 05:29 PM, JohnBoy said:

If broadband is such a great thing...why doesnt a private entity, just simply build it? Why do we need to add even more massive debt ?

On March 3rd, 2010 at 06:30 PM, Arvid said:

If broadband is such a great thing...why doesnt a private entity, just simply build it? Why do we need to add even more massive debt ?

Because private entites have proven that unless they can make a hefty pile of cash, they're not interested. Why must everything be turned over to the private sector and be about profit, profit, profit?

Bars are not serving minors. - "B is for Business" on 2009-12-28 @ 7:29am

On March 3rd, 2010 at 08:30 PM, Anonymous (not verified) said:

Arvid:

The reason to trust private investment over government investment is that the marketplace sorts out the good ideas from the bad.

Bad ideas in private business result in (a) the loss of PRIVATE capital, and (b) fairly quick adjustments.

Bad ideas in government result in (1) a loss of public money (taken, not given), and (2) creation of structures which continue on ad nauseaum.

=Big E

On March 3rd, 2010 at 09:05 PM, Anonymous (not verified) said:

The reason to trust private investment over government investment is that the marketplace sorts out the good ideas from the bad

Yeah, just look at Enron, or the collapse of wall street. The marketplace sorted those out really well and it was (is) such a quick adjustment we're all making!

On March 4th, 2010 at 08:57 AM, mjerryfuerst said:

Since the "private sector" of internet access providers has nurtured and manipulated the regulatory mechanisms in a manner which has caused broadband access and SPEED in the U.S. to significantly lag behind that of other nations, this and similar projects become necessary.

Michael Fuerst

On March 3rd, 2010 at 11:13 PM, akibare said:

US internet gets laughed at abroad, yeah. Friends of mine are upset at "only" having 92Mb down and 23 Mb up (mainly bitching about the 23 up), because they paid for (normally) and expect (and usually get) 100 down and 100 up. Fiber to the house, of course.

Meanwhile I'm here on Comcast, I get around 9 down and 3 up. People say, why your internet so slow, well, I explain I live in the US, so then it's oh yeah, okay we understand now...

They laugh at US cellphones too. You can't get TV streaming on there? Sucks man.

On March 4th, 2010 at 12:24 AM, Anonymous (not verified) said:

The reaction to UC2B is telling.

People drink the kool-aid.

They think they are the spur.

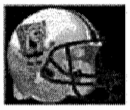
When they are really just the lazy horse.

This is so badly needed, but if they can just drag it to the bathtub and drown themselves, they can pretend it was never needed.

It's just one more example of private "enterprise" attempting to sell rationing for innovation -- then shoving government in front to be the flakcatcher for them that don't know any better to blame.

Yeah, I have little faith in gov't myself, but why let someone else reap the benefit of relative advantage? I guess that scores brownie points with some unseen and irrelevant leftover scorekeeper from the Reagan era, but this is the 21st century

and someone else will be more than happy to make hay while Champaign County is wandering around trying to find its butt with both hands if we can't get our act together.



On March 4th, 2010 at 01:03 PM, redstatewannabe said:

Yeah, just look at Enron, or the collapse of wall street. The marketplace sorted those out really well and it was (is) such a quick adjustment we're all making

Enron was sorted out - it doesn't exist anymore. It failed and is gone. The shareholders lost all their investment.

On March 4th, 2010 at 12:30 PM, John Bambenek said:

akibare-

Tell your European friends that we built their country, their infrastructure, and basically fund their defense. The next time one of their local bullies gets all uppity, don't come calling us. We'll save the money and spend it on our cell phone networks instead.

/snark

--

j

Part-Time Pundit (http://www.parttimepundit.com)

On March 4th, 2010 at 02:34 PM, akibare said:

Europe?

Though yeah, come to think of it they have better internet also.

On March 5th, 2010 at 06:50 AM, Ernest Terga said:

Europe redeveloping after WW2 and the 3rd world now developing is

able to use the latest technologies.

The US of A, sinking in a morass of crony capitalism and crippling protectionist regulation is relegated to the outdated technologies powered by numerous favours doled out to the corrupted American political class.

Most of the amerikan sheep are much too dull to even notice, and they believe their own lies.

Even as the US continues to lag further and further behind the developing world in technology and adaptation of technology,

they kid themselves that they are at the cutting edge. It's true that they are at a cutting edge actually. that edge that is about to be cut off.

Be fruitful and multiply, so to speak.

On March 5th, 2010 at 03:14 PM, JohnBoy said:

Why do you keep focusing on Europe? Last trip , I noticed a good lack of deodorant....

On March 6th, 2010 at 06:34 AM, Anonymous (not verified) said:

JohnBoy: That kind of niave comment about "lack of deodorant" seems a real sign that you never had a "last trip" to Europe.

On March 6th, 2010 at 08:14 AM, Anonymous (not verified) said:

Japan should bomb us and then rebuild our telephone lines. Then we'd have really fast internet too.

On March 6th, 2010 at 08:27 AM, JohnBoy said:

Actually I was suprised that even professional people were not groomed.

On March 6th, 2010 at 09:16 AM, Narc said:

Is anyone else reminded of Ann Coulter's remarks about how Muslims smell bad?

On March 11th, 2010 at 07:02 PM, Peter Folk (not verified) said:

This is one of the few good discussions I've seen of this issue. I wanted to add a few facts to the mix:

1) US broadband is not as bad as is commonly reported: http://www.slideshare.net/ceobroadband/broadband-quality-study-2009-press-presentation-final shows based on actual speed test data (not advertised speeds)

that the US is in the top third of industrialized nations, is "comfortably enjoying today's applications," and is improving rapidly (15% penetration growth 2008-2009, 24% improvement in "Broadband Quality Score"). If trends continue, we will exceed the BQS of 50 in 2012, on schedule to continue to "comfortably enjoy" new applications as they develop. No, we are not Japan, but we aren't "falling behind" either.

2) The market *is* addressing this issue--Comcast and AT&T are both pushing more fiber closer to homes (closer to most than UC2B will be with the current plan), and rolling out new, faster services. AT&T's Uverse service, rolled out last year, is fiber-to-the-premise in some areas. Comcast's DOCSIS-3-based xfinity is being rolled out this year and next, and will offer speeds up to 100mbps. Neither of these have significantly changed the cost of connectivity, and they have increased speeds significantly.

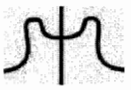
3) The adoption rate required by UC2B to NOT lose taxpayer' money is 54% of the target area. That's an enormously tall order for a service that is charging about as much as existing services, that has no marketing budget, that doesn't have a well-known brand, that offers fewer services, and that is entering an already-mature market.

4) UC2B's plan for 2011-2012 is to offer 5-40mbps. Comcast's plan is to offer 12-100mbps. UC2B does not deserve to call itself "super fast." (And that doesn't take into account the fact that bandwidth models predict that the service will have 50% or less of the bandwidth it needs at peak times, so it will seem even slower.)

5) The non-UI experts that have looked at the plan believe that it is majorly overbuilt, to the tune of $15M of waste--mostly backbone miles that don't do anyone any good, now or in the future. A side effect of that is that the network is centralized at the U of I so the cities will never be able to run it independently of the U of I, and will always pay for U of I overhead.

6) The UI experts involved do not have experience with successful consumer broadband providers (tho they have run failed providers =). They do have years of experience with networks, but those networks are telecom (inter-city networks used for voice traffic, which uses very different technologies to this kind of network) and campus (where local traffic is much more important than internet bandwidth).

I am not anti-UC2B in principle, but I have strong misgivings about this plan being a good use of public funds, or being good for CU as anything other than a boondogle.



On March 11th, 2010 at 09:51 PM, Ernest Terga said:

Interesting to me it is that Folk-lore that one should take comfort that the USA is in the "top-third" and further interpret this information as "not falling behind". Only the lead dog has a changing view.

Peter Folk's statement #4 should be the most damning one for this broadband project.

Actually this project isnt so much about getting better broadband service as it is about getting nutriture from the nanny-state's regressing teats. The nanny-staters want to some how prove that the nanny-state still works by displaying a milk mustache, and their justification is that if they dont take the money it will go somewhere else.

Remember this -- the nanny-state's candy bars always have fishhooks in them -- and were it not for the interference with the marketplace by her regulators, the USA would already have world-class internet.

It is unusual for a university to be successful with any commercial project.

On March 12th, 2010 at 09:24 AM, Anonymous (not verified) said:

It may help to know that Peter Folk has an iron in the fire as owner of Volo, a local provider of wireless internet service.

Interestingly, there has been quite a lot of hype about wireless internet service being the alternative to wired service. Several alternatives. induding Peter's, one associated with the city of Champaign, and the CU Wireless group, have rolled out in the last decade. None has quite lived up to the universality that was anticipated, so that does speak to some caution about the same for UC2B I suppose.

On the other hand, in an AM580 Focus interview this week with a couple of the people working on the UC2B project, a couple of interesting points were made about UC2B. First, it will be an open system. Providers of various services, like Volo and even Uverse, etc, will have open access to it, so investment in it will leverage their own investments, while making these investments more unversally available and cohesive.

Second and specific to wireless infrastructure, one of the issues with wireless has been that the throughput of traffic on such networks tends to overwhelm the wireless nodes if all traffic is kept on the wireless netwrok itself. Having a wired, err fibered, backbone like UC2B to carry the bulk of traffic to localized wireless nodes will facilitate increased wireless capacity between the nodes and the users. This aspect of UC2B would seem to me to be a be a real business opportunity for

Volo.

I suspect that it would pay for those criticizing UC2B to take a bit of a longer look at things and try to not be so shortsighted in their criticisms. UC2B isn't perfect, but it is a tremendous opportunity for our community. Failing to see that is anti-business and anti-growth, a curious position to take for many users and readers of IP.

On March 12th, 2010 at 09:05 PM, Anonymous (not verified) said:

As much as I would like to see this project move forward (OK, I'm a geek), I'm afraid the time is just not right in these hard economic times where local government workers may soon be facing layoffs. It's not only the match, but it's the ongoing maintenance and support that will be required. Our community simply can't afford this project right now.

Broadband for all will continue to be a focus in our country and there will certainly be similar grants in the future. I would prefer to see Urbana and Champaign hold onto that money for now for a rainy day... at least until the local economy turns around. If things don't improve with the State of Illinois budget to a point where they can pay the U of I what it is owed - then we're going to see a whole lot of unemployed citizens here locally (maybe by mid summer). There will be lots of folks who will need all of our help to survive, including help from the cities of Urbana and Champaign. I'd hate to see these folks going to bed hungry just so someone who doesn't even have a computer 'could' have access to not-so-high speed internet service.

Seems to me like the time just isn't right.

Todd

On March 13th, 2010 at 09:04 AM, Anonymous (not verified) said:

Seems to me like the time just isn't right.

That's a self-fulfilling prophesy. Fear of job loss? Don't put any money into the community. Leads to...guess what? More job loss. The downward spiral continues...

In the meantime, you might want to read this, which I realize is somewhat heretical here: http://host.madison.com/ct/news/opinion/column/article_50a6e6ae-41f8-5881-a6cb-cc79af71c3dc.html (http://host.madison.com/ct/news/opinion/column/article_50a6e6ae-41f8-5881-a6cb-cc79af71c3dc.html)

On March 13th, 2010 at 09:27 AM, mjerryfuerst said:

The FCC is getting into the act:

http://www.nytimes.com/2010/03/13/business/media/13fcc.html?th&emc=th

Michael Fuerst

On March 13th, 2010 at 04:52 PM, Anonymous (not verified) said:

"Don't put any money into the community."

Heck, why not just put lots of money into all the communities? I mean, if we're going to think like kindergardeners here, why keep it at a small scale?

On March 14th, 2010 at 12:15 AM, Anonymous (not verified) said:

I mean, if we're going to think like kindergardeners here, why keep it at a small scale?

Yeah, now if we were really going to play in the big leagues, we'd think more like defense contractors or a bank too big to fail.

I don't see anything too immoral, unfair, or unjustified in getting something back out of what we send to DC or in expecting some investment right here in our community. On the other hand, some people like to split hairs or insist on seeing differences in how many angels dance on the head of a pin.

Me, I think something that's a good investment in the future of our community and that could even be something that could give it a competitive advanatge down the road might be worth supporting.

On March 14th, 2010 at 09:06 AM, pattsi said:

Everyone might want to read Fred Giertz's guest editorial in today's N-G relating to communities irrational decision making relating to bringing Federal dollars back to their respective communities juxtapositioned against exactly what the project will do for the community. Since such editorials are not on the web site, one will have to read it in the newspaper.

Pattsi Petrie

On March 14th, 2010 at 02:24 PM, mjerryfuerst said:

Pattsi: Although not on the web site, Fre Giertz's column is not the

property of the NG, so it could be scanned and posted here.

Michael Fuerst

On March 14th, 2010 at 04:45 PM, Narc said:

And so the News-Gazette's attempt to make itself irrelevant continues apace...

On March 14th, 2010 at 05:11 PM, Anonymous (not verified) said:

Prof. Giertz's column, like much of the criticism of UC2B, is remarkable mostly for its selective application of principle masquerading as a distraction for his choice of priorities. Where it starts by invoking Reaganism, which gave the country its biggest deficits in history -- except for WWII, until Bush II -- all in the name of supposed fiscal rectitude, is typical of the genre. Then Giertz calls the "$30-35 million" investment a "huge price tag" even though it's roughly comparable to the cost of the Olympian Road project, which has never drawn such "huge" labels from either its supporters or critics, because, well, it's really not huge.

Interestingly, Giertz has never stepped up and argued against other "frivolous" spending that seems equally suspect. Let's take what happened after September 11. A policy that focued on hunting down those directly responsible might have cost $200 billion and concluded -- most likely successfully -- in a year, without turning the Muslim world against us. Instead it was used as an excuse to initiate a "global war on terror" that is intended to keep the factories of the Cold War arms mechants humming, even though their wares are increasingly pointless to the task at hnad. Giertz has been MIA to complain in that fruitlessly frivolous exercise.

Then again Giertz hasn't said anything about Olympian Road either. And as with the News-Gazette's selective coverage, readers should ask, who profits? Well, the News-Gazette has property up thataway, as do several well-known local developers. But the taxpayers should rest easy, because THEY deserve to have their interests pretty much unquestionably subsidized by the rest of us to the "huge" tune of $30 million of so of "other people's money" that Giertz can't work himself into a lather over like he can over UC2B.

This brings us back to one of the other characters who claims to have found principle here, when it's really a disguise for some fairly pedestrian politics, Mayor Jerry. When the Mayor was police chief, he never saw a grant from Washington that he didn't like or wanted to turn down. And until the recent tempest in a teacup stirred up in a very, very tepid attempt to give himself cover to oppose UC2B, CPD has taken in hundreds of thousands of dollars in federal grants, matched by lots of local money, to buy all kinds of goodies, up to and including

their "tank" -- which seems like a whole lot of "frivolity" to me as a taxpayer.

So let's cut to the chase, one that reveals that there really isn't any principle involved in Schwieghart or Giertz's arguments, but a matter of priorities. They are both just fine with using public money to fund things they support politically. When things they oppose for reasons that often have little substance, they claim to find their principles. Oddly enough, they are OK with using public money to subsidize wealthy developers with virtually no strings attached.

Please, don't ask any questions about that, though, because they do NOT want to get into any "tit for tat" over such sacred ground.

Rest assured that if C-U turns down this money, it will simply go elsewhere. The opposition to it is grandstanding, not understanding what our community needs. We've got plenty of highways. I suspect to gain a competitive advantage, we'd be better off with more fiberways. Some people want to keep us investing in the past to benefit those who are profiting in the present. I suggest we'd be better off investing in the future, to help those with new ideas build a better community from the projects we can barely imagine in the present.

On March 14th, 2010 at 07:22 PM, Keith_Hays said:

When the Mayor was police chief, he never saw a grant from Washington that he didn't like or wanted to turn down.

Jerry Schweighart was never "police chief".

Three Score and Ten Plus One

Keith Hays

On March 15th, 2010 at 08:59 AM, Anonymous (not verified) said:

Have any of the pro broadband grant people considered the budget deficits of our local schools and other government agencies?

With our schools now laying off staff and talking about closing elementary schools, how are our schools going to have the money for the capital improvements spending on equipment and salaries for staff to truly take advantage of this kind of network? Clearly the answer is that they will not.

On March 15th, 2010 at 10:25 AM, Anonymous (not verified) said:

Here's what will happen. They'll build the network, basically sending a signal to Comcast, ATT, etc, that they had better not try to compete with free money from the Feds. Then a few years from now, once the free money is gone and the network needs maintenance, they'll raise taxes, let it deteriorate, or both. If the

Urbana city government can't maintain its outdoor pool, how will it maintain a complex fiber network?

So in 5 years, we'll be left with a very expensive and not-so-great government fiber network, and fewer private (aka sustainable) options.

All in all, a net negative. Bad for the federal tax payers whose money was confiscated for this project, bad for employees/share holders of companies who will be harmed, and bad ultimately for anyone in the community looking for Japanese quality internet access.

On March 15th, 2010 at 12:04 PM, Son of a barrelmaker said:

If the Urbana city government can't maintain its outdoor pool,

Where is this city owned outdoor pool of which you speak?

On March 15th, 2010 at 06:18 PM, Peter Folk (not verified) said:

@Ernest Terga: **Interesting to me it is that Folk-lore that one should take comfort that the USA is in the "top-third" and further interpret this information as "not falling behind". Only the lead dog has a changing view.**

I don't get the metaphor, but in case my point was not clear, the US is in fact not falling behind; we're keeping pace with the pack--moving up slowly, actually. I'm not against improving more, faster, or leading the pack, but I am against alarmist misinformation as justification for emergency spending =)

@Anonymous:
Re: wireless vs fiber

Over the years we (Volo) have learned when wireless works and when it doesn't. When Bill Dejarnette discussed a hybrid fiber/wireless infrastructure on AM580, it was based on conversations I've had with him. The fact is that ubiquitous wireless is possible, with performance similar to current cable internet, if you use the right hardware and have a robust (often fiber-based) backbone, but doing it right is neither easy nor cheap (millions of dollars, tho 1/10th the $ of a full fiber deployment).

Also, I'd note that Volo never intended to have ubiquitous wifi in the same way CU Wireless or the downtown project did. Our system was never a mesh network (because it's always been clear to me that meshes don't have enough bandwidth for real work), and it has served (still serves) well in the areas we target. Trees are the main reason we don't do much in the older areas of Champaign and Urbana, and cable+Uverse is the reason we branched out into fiber 18 months

ago.

Re: UC2B as an open network

Providers like Volo hope that UC2B will be open in fact, and it might serve us well. But it's not a foregone conclusion that using UC2B as a wholesale provider is a good business model, as current plans for financial success require UC2B to cherry pick the best customers near the fiber path, and charge service providers $20/mo. That makes it impossible for me to imagine UC2B-based service that costs less than $50/mo. Even that will be hard to justify unless the homeowner pays the $2500 cost to get from the backbone to their door. Mr Dawson also concluded that this model wasn't likely to work out well.

Re: I suspect that it would pay for those criticizing UC2B to take a bit of a longer look at things and try to not be so shortsighted in their criticisms. UC2B isn't perfect, but it is a tremendous opportunity for our community.

As I have said before, I am in favor of a well-conceived plan for a community-owned backbone. I wrote the BAC's mission and vision statements. There is no reason that project should be inseparably intertwined with the U of I, or cost more than $5M for the backbone, or have any question about sustainability, or provide less than eye-opening performance advances. The current UC2B plan is not such a plan. If the cities can accept the money but force an RFP process to develop a non-UI-centric, fiscally reasonable plan that significantly improves connectivity options, then I'm all for it. If they can't then they should not accept the money, because they will not be able to deliver the sustainable broadband system they are promising to create with the money.

On March 15th, 2010 at 10:15 PM, Anonymous (not verified) said:

Peter,

Thanks for sharing your point of view on things. While I probably don't agree with all of them, I think they are far more constructive than much of the shallow criticism that has sufficed for some in dismissing UC2B.

The places where you do seem to have problems with the proposal are ones where engagement between government, local institutions, users, and business could create new solutions. I think many people believe that whatever is proposed in getting the grant sets things in stone. I don't believe that to be the case.

While it's true that like with most effective grant processes, there are targets and

goals that need to be establsihed and met, the beauty of a collaborative project like this is that it will be flexible and adaptive. No one really knows what it will look like in 10 years. The point is to put tools in the hands of local stakeholders to let them shape the future internet in our community, rather than to let ot be imposed by a few outsiders with no interest other than financial return.

I just hope that when it is discussed at Champign's city council meeting, there will be enough people on the council willing to consider that it's worth giving our communuity this tremendous opportunity to shape its own future for a relatively modest investment.

On March 16th, 2010 at 06:16 AM, Anonymous (not verified) said:

I would much rather depend on the greed, or self-interest, of outsiders than the wisdom and benevolence of locals for my internet service, food, or anything else.

On March 16th, 2010 at 01:20 PM, pattsi said:

I have very limited understanding of the various ways to connect to the internet. So my question is how does the decision-making playing field about the broadband grant change with the new action that the FCC is proposing? If someone responds, please do so as "broadband for dummies." :-)

Pattsi Petrie

Post new comment

Your name:
Anonymous

E-mail:

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ILLINIPUNDIT.COM SINCE JANUARY 2005

Big Broadband Passes Champaign

Posted March 16th, 2010 at 08:41 PM by IlliniPundit

Grant acceptance passes seven to one, with Mayor Schweighart being the line vote against. CM Mike LaDue gave a great talk outlining his concerns with the business plan before explaining his vote to accept.

Comment viewing options

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Select your preferred way to display the comments and click "Save settings" to activate your changes.

On March 16th, 2010 at 09:16 PM, Urbana Jake (not verified) said:

Yeah, LaDue said the Council was basically (probably) going to spend money on fiber somewhere in

the city as outlined in a little-followed central plan. So when the city taxpayers lose three-quarters of

a million dollars, it won't be a big deal. LaDue said he's just happy another town wouldn't get the chance to gamble with the

money. Plus, he said a lot of greasy of salesfolk will be needed to sell $20 per month

Internet access to the poorest among us. And besides, the consultant, via telephone (not even a Webcast

to prove how lost we are without the Grant) said the worst case is that a private sector partner would

step in to take the whole failed operation over in a few years.

That's progress.

On March 16th, 2010 at 09:50 PM, Anonymous (not verified) said:

Wow. When the City says that they are poor, remember this stupid decision.

On March 16th, 2010 at 10:08 PM, Anonymous (not verified) said:

We the voters should remember this poor decision when we vote for our council members next time.

On March 16th, 2010 at 10:14 PM, Anonymous (not verified) said:

Fools. The dive steepens. Soon, we'll reach Vne.

On March 17th, 2010 at 07:07 AM, Ezra (not verified) said:

Hmmmm. What happened to the principles of just a few weeks ago that kept the Champaign City Council from accepting $17,000 in federal grant money to increase enforcement of the laws against underage drinking in bars. It must be that the Council's principles are not, as thought, against accepting federal money, but are against doing anything that might cut down on bar owners' profits.

On March 17th, 2010 at 07:14 AM, A is for Anonymous said:

It must be that the Council's principles are not, as thought, against accepting federal money, but are against doing anything that might cut down on bar owners' profits.

Yup.

On March 17th, 2010 at 08:21 AM, JohnBoy said:

I sure hope the community can handle these thousands of new jobs that are going to magically appear when big broadband comes to be.....

On March 17th, 2010 at 08:21 AM, Keith_Hays said:

Perhaps it had something to do with Champaign County's official unemployment rate reaching 11%.

Three Score and Ten Plus One

Keith Hays

On March 17th, 2010 at 08:49 AM, A is for Anonymous said:

Perhaps it had something to do with Champaign County's official unemployment rate reaching 11%.

I thought Unofficial would have taken care of that.

On March 17th, 2010 at 09:06 AM, Anonymous (not verified) said:

Somehow, the only thing I can add to the comments above, with some irony, is that they seem to come from the "natterering nabobs of negativism."

Give it a chance. I'll bet the sky doesn't fall.

On March 17th, 2010 at 09:43 AM, Urbana Jake (not verified) said:

Looks like the cost of getting things done in the Dairyland State is a bit cheaper than in good ol' Illini country.

Roughly the same project as UC2B is going on at the University of Wisconsin.

http://www.ntia.doc.gov/broadbandgrants/factsheets/WI_MUFN_FINAL.pdf (http://www.ntia.doc.gov/broadbandgrants/factsheets/WI_MUFN_FINAL.pdf)

for less than $10 million total tax dollars! And with WIRELESS!
http://www.madcitybroadband.com/ (http://www.madcitybroadband.com/)

(FYI...Univ. of Wisconsin has 42,000 students)

On March 17th, 2010 at 09:44 AM, heathen said:

Let's don't forget Olympian Drive, U of I Research Park, and now Big Broadband....not sure we'll have enough workers available to meet the employer's needs?

On March 17th, 2010 at 09:50 AM, Anonymous (not verified) said:

There's a difference between negativism and skepticism. People have a right to be skeptical of programs like this in general, and there are good reasons to be skeptical of this proposal in particular.

On March 17th, 2010 at 10:37 AM, Champaign Dweller said:

The inconsistency was noted over at Capitol Fax--seems they also have some skepticism about this.

On March 17th, 2010 at 10:55 AM, pchappel said:

Skilled workers available? Well, with years of flat pay and now pay cuts/layoffs in the University system, there just might be enough tech workers around...

On March 17th, 2010 at 12:07 PM, Anonymous (not verified) said:

I don't understand why this is bad for Champaign. $20 million dollars gets dumped into the local economy and some poor kids get internet. Can someone provide a link or an explanation of why its bad?

On March 17th, 2010 at 01:03 PM, Champaign Dweller said:

I think the problem is that the federal government is broke. Any money they give us contributes to the federal debt. In essence, this project will be built on the US credit card with China. Assuming that isn't a problem, and assuming that the cities and the U are correct that they're broke, too, then where will they get their $4 million plus the money it costs to operate this system in the future.

I think people are saying to wait until the economics of this improve. No one is arguing about poor kids and internet.

On March 17th, 2010 at 01:14 PM, Anonymous (not verified) said:

"I think people are saying to wait until the economics of this improve. "

Unfortunately, waiting isn't an option. This grant was a one-time-only program which has a very specific time window, and a very clear message associated with it: you snooze, you lose.

On March 17th, 2010 at 02:34 PM, Anonymous (not verified) said:

I think the problem is that the federal government is broke.

Someone should have told Bush II about that little problem before he started a "global war on terror" to fatten his defense contractor buddies. It would have been a better policy to just go after bin Laden and friends. Instead, him and Cheney started a Second Cold War that we really can't afford -- and the man they really needed to catch slipped away -- only to have his image conveniently brought out to whip up the votes for more junk that isn't really needed whenever it's needed to justify spending another $100 billion.

On March 17th, 2010 at 03:01 PM, Champaign Dweller said:

And what does Bush II have to do with the broadband project? Even Obama has stopped blaming Bush. As a diversion, it's losing its effectiveness.

On March 17th, 2010 at 03:19 PM, Anonymous (not verified) said:

Actually I am. Why should I provide internet to some kid out of my tax money/

there are computers at the library both downtown and at Douglas park, there are computers in the library at school and in the IT rooms. I provide through my tax money, free breakfast, and lunch. I probably provide the WIC card too, along with no book fee's at school. Now, should I also provide this child with a cell phone when my own child doesnt have one?

On March 17th, 2010 at 03:22 PM, Anonymous (not verified) said:

I don't understand how this program gets internet to poor kids. Brings broadband there, but does it provide computers? If not, it's a lot of hot air

On March 17th, 2010 at 03:30 PM, Anonymous (not verified) said:

"I think people are saying to wait until the economics of this improve. No one is arguing about poor kids and internet."-Champaign Dweller

Well, I am willing and cold hearted enought to have that argument. I figure if people need to provide the internet as charity to the poor, negotiate to buy it wholesale from comcast and deliver it through the existing cable lines. Is that so crazy? It certainly seems like the cheaper and more cost effective approach. Part of me isn't even that simpathetic to the idea of providing it as charity anyway. Has anyone ever noticed how many mobil homes near I74 in champaign and urbana have satellite dishes? I keep a frugal budget and do not splurge on cable or satellite. I figure some people spend around $100 per month on TV in these neigborhoods (instead of grabbing the free Tv out of the air). Obviously, some percentage of the poor have very poor priorities. And I for one, feel that some people have spending problems instead of income problems.

On March 17th, 2010 at 03:59 PM, Anonymous (not verified) said:

Anon 2:30. You are cold-hearted, and your statement reeks of condescension. You want everyone to be as churlish as you it would seem. If I can't afford a grossly oversized, energy-sucking home in southwest champaign, and have a nice trailer along I-74, why shouldn't I have a little pleasure in life, and use my small amount of marginal income on a satellite dish? Your moralistic finger-wagging is of a piece with he who said charity only adds to the surplus population. Are there no prisons, no poor houses? Humbug.

On March 17th, 2010 at 04:01 PM, 1953 was good enough (not verified) said:

Here is a little secret showing why the mayor was against it: he doesn't use a

computer. At all. Don't believe me? Send him an email, see how long it takes to get a response.

He has his emails printed out and responds to them, oh, about once a week.

I was emailing with someone today in a far off place (the East Coast of the US) and 30 seconds after I emailed her, she called! Coincidence? No, of course not.

Gerry doesn't use a computer, so he sees no reason to have broadband. The Mayor of what was supposed to be center city of "The Silicon Prairie" just doesn't know anything about it.

Sweet.

On March 17th, 2010 at 04:07 PM, A is for Anonymous said:

The program is kind of like the rural electrification programs of the New Deal. The idea here is that a whole section of our community is suffering from the "digital divide" and we need to work to solve that problem. The reason it is a problem has to do with opportunity and the lack of opportunities for people who are not digitally literate at a young age. Those people are less likely to succeed in school, find gainful employment, and contribute positively to society.

Yes, broadband really is that important, imo.

And it is actually fine to run the deficits we currently have at the federal level. Obama is engaging in a sort of Keynesian/Monetarist strategy to fix the economy, to mixed success. The Keynesian doctrine advocates running deficits, cutting taxes, and increasing government spending to get the economy out of the negative. That part appears to be working pretty well.

The question of the deficit will be solved (imo) long-term by higher tax rates on the top 10% of earners. I think the rate is somewhere in the low 30%s right now, which is not sustainable. It should be closer to 40%, and hopefully Obama will have to courage to make that move. With the long term funding problems in entitlement spending at the federal level we'll need higher taxes on the wealthiest to stabilize the economy, similar to what FDR did during World War II.

Hopefully we won't have a world war to live through before the president has the courage to call for sacrifices from the richest Americans.

Just my two cents.

On March 17th, 2010 at 04:09 PM, Anonymous (not verified) said:

Ok so trying to filter through the negatives:

- some high minded principles about federal pork. (Isn't it only pork when it isn't your district?)
- said pork could be better spent negotiating in bulk with an ISP e.g. Comcast
- its going to cost money to operate ($4m???) Who is supposed to pay that?
- I'll add one: what's the chance of this being completely obsolete within 5 years?

Some positives:
- some local contractors are going to be installing this
- some local folks will be maintaining the network
- poor kids get Internet
- positive social effects?
- increased property value?
- other positives?

On March 17th, 2010 at 05:06 PM, Anonymous (not verified) said:

1953 was good enough
"Here is a little secret showing why the mayor was against it: he doesn't use a computer. At all."
Seriously . He comments on here and he is a Mac fan.

On March 18th, 2010 at 07:29 AM, 1953 was good enough (not verified) said:

The Mayor comments on here? When, I must have missed it. Do you have a posting he has made? Show it to us, please.

On March 18th, 2010 at 08:16 AM, heathen said:

If AL GORE hadn't invented the internet we wouldnt have this discussion.

On March 18th, 2010 at 09:04 AM, Champaign Dweller said:

All of this talk about broadband and internet for the poor isn't relevant if we can't afford it. Where are the cities and the U going to get the money to finish this project, much less maintain it every year? Or are we going to have to listen to some lecture by the Finance Director about revenue enhancement? Maybe the City of Champaign should have taken the money they're spending on their birthday party and year-long celebration and applied it to this project.

On March 18th, 2010 at 09:22 AM, IlliniPundit said:

"The Mayor comments on here? When, I must have missed it. Do you have a posting he has made? Show it to us,

please."

I don't remember which thread (something about Unofficial maybe?) but he's commented on here in the past two weeks.

On March 18th, 2010 at 09:32 AM, 1953 was good enough (not verified) said:

Really? The Mayor posted something? Isn't there some way to research the past comments, especially from only a couple of weeks ago?

I just don't recall the Mayor posting comments. Because he doesn't know much of anything about computers, let alone the value of broadband.

Again, his vote against wasn't because of some trepidation about the cost or becoming beholden to the Feds or even having our streets clogged from time to time with work trucks and crews doing the work, it's because he just doesn't understand computers, the Internet, or Broadband.

It's 2010, he is the Mayor of a pretty good sized city, a "twin city" of Urbana, the home of the University of Illinois, the Beckman Institute, the NSCA, and the finest computer engineering campus in the world, and he doesn't even use email.

On March 18th, 2010 at 09:55 AM, Mayor Jerry Schweighart (not verified) said:

If you knew me at all you would know that I spell my first name Jerry with a j not a g. Also i have a 19" mac with wifi in my home office which i very rarely use to send emails. Emails that i get at my office are copied and put on my desk and many of them i respond personally by phone and not by email. It's not that i cant respond by email rather i choose to respond on a more personal level. I have made this offer in the past. But, if you are interested in fact not fiction i am willing to meet with anybody on any subject and ill pay for the coffee. All you have to do is call my office (217) 403-8720. Looking foward to recieving your call

,Jerry

On March 18th, 2010 at 10:00 AM, Michael (not verified) said:

Hmmmm. What happened to the principles of just a few weeks ago that kept the Champaign City Council from accepting $17,000 in federal grant money to increase enforcement of the laws against underage drinking in bars. It must be that the Council's principles are not, as thought, against accepting federal money, but are against doing anything that might cut down on bar owners' profits.

Um, Mike LaDue brought that back and passed it on Tuesday night. Pay attention.

On March 18th, 2010 at 10:06 AM, IlliniPundit said:

"If you knew me at all you would know that i spell my first name Jerry with a j not a g. Also i have a 19" mac with wifi in my home office which i very rarely use to send emails. Emails that i get at my office are copied and put on my desk and many of them i respond personally by phone and not by email. It's not that i cant respond by email rather i choose to respond on a more personal level. I have made this offer in the past. But, if you are interested in fact not fiction i am willing to meet with anybody on any subject and ill pay for the coffee. All you have to do is call my office (217) 403-8720. Looking foward to recieving your call

,Jerry"

Well done, Mr. Mayor!

On March 18th, 2010 at 10:08 AM, Keith_Hays said:

Amen, IP!

Three Score and Ten Plus One

Keith Hays

On March 18th, 2010 at 10:57 AM, Anonymous (not verified) said:

Nicely done !

On March 18th, 2010 at 11:27 AM, A is for Anonymous said:

Does the Mayor not know that the personal pronoun "I" should always be capitalized?

Just asking. Otherwise, that was a great comment. I might contact him just for the free coffee. :)

On March 18th, 2010 at 02:44 PM, Urbana Jake (not verified) said:

Mr. Mayor, Smart move not to use email. FOIA does not apply to the content of phone calls. Well played.

On March 18th, 2010 at 02:59 PM, Anonymous (not verified) said:

Criminetly, picking on the odd misspelling on a board is just stoopid.

Jerry & I share few political views but he is no Luddite (ESP for a member of his generation).
Cheap shot. A conservative with integrity, who happens to prefer to chat, where tone and nuance are possible to discern. You go Jerry.

On March 18th, 2010 at 03:26 PM, A is for Anonymous said:

Criminetly, picking on the odd misspelling on a board is just stoopid.

Uh ... he did it every single time he used that pronoun except when it started a sentence.

Just to clarify: the personal pronoun "I" is always capitalized. There is never an instance in which a lower-case "i" is appropriate if you are using the letter as a personal pronoun.

On March 18th, 2010 at 04:09 PM, Anonymous (not verified) said:

Why would you bash Jerry's use of personal pronouns? This is a forum not a novel. By the way, nice post Mayor.

On March 18th, 2010 at 05:11 PM, Peter Folk (not verified) said:

Anon@3:09pm wrote:

Ok so trying to filter through the negatives:
- some high minded principles about federal pork. (Isn't it only pork when it isn't your district?)
- said pork could be better spent negotiating in bulk with an ISP e.g. Comcast
- its going to cost money to operate ($4m???) Who is supposed to pay that?
- I'll add one: what's the chance of this being completely obsolete within 5 years?

In responding to these, as a (very) knowledgeable skeptic, the problems are as you said (it's bad use of public money, and may cost us money when every other aspect of government is feeling a squeeze), but also:

It takes control out of the hands of the people and private sector, and puts it in the hands of the U of I. The U of I is driving this bus and so far has shown little interest in having others involved, including members of the city governments who are consulted only when the U of I needs their help pushing something through, other than paying lip service to it being a community project.

Some positives:

- some local contractors are going to be installing this

Maybe--most contractors that have won bids on work like this are not local. So this will be nice for hotels, but likely not local contractors (some of us are trying to change that...)

- some local folks will be maintaining the network

U of I folk, who already have full time jobs maintaining the U of I network

- poor kids get Internet

This is the big one, and it is **FALSE**. No one will get internet with this program that couldn't already have had it. People **think** that UC2B will be providing cheap, superfast internet access, but as planned **it will not be**. They will be offering mediocre-speed connectivity (5-40mbps, compared with Comcast's 12-100mbps during the same time period), for mediocre prices ($20-$70/mo).

UC2B is using a claimed benefit to poor people, and a claimed technical advance, to push this forward. Those claims don't pass a smell test, which is sad because with $30M, it is absolutely possible to provide **real** benefit to people who need it.

- positive social effects?

Not really; those grants were not funded.

- increased property value?

Maybe, which of course means poor people won't be able to afford their own homes anymore. (Called "gentrification", this is exactly what has happened with other similar projects.)

- other positives?

The main thing is not that the negatives are huge, it's that the positives are **astoundingly weak and unlikely**. That's why I'm OK with them accepting the money, but not OK with the plan in place right now. If they can accept the money but come up with a decent plan, then it will be fun to watch. Otherwise it will be very unpleasant.

On March 18th, 2010 at 09:08 PM, Jerry Schweighart (not verified) said:

Sorry about the small i, the shift key on the Royal typewriter I used was stuck. I used some oil and for my punishment IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

On March 19th, 2010 at 08:31 AM, IlliniPundit said:

"Sorry about the small i, the shift key on the Royal typewriter I used was stuck.
I used some oil and for my punishment IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII"

Mayor Schweighart FTW!

This may be my favorite day on the blog ever.

On March 19th, 2010 at 09:13 AM, Anonymous (not verified) said:

Peter, thanks for your reply. This now makes sense. The project is going to be good for the U of I but is basically a big subsidized competitor to local providers who will essentially be cut out of any of the work.

Something does seem a little wrong with that. You have local business owners who have taken the risk of starting a business and may be put out of business because of a giant, inefficient, but government funded competitor coming into the market.

Is that a fair characterization?

On March 19th, 2010 at 10:04 AM, A is for Anonymous said:

"Sorry about the small i, the shift key on the Royal typewriter I used was stuck.
I used some oil and for my punishment IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII"

Sure it was. Welcome to IlliniPundit, Jerry.

On March 19th, 2010 at 03:55 PM, wayward said:

Sorry about the small i, the shift key on the Royal typewriter I used was stuck. I used some oil and for my punishment IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

Well played.

On March 19th, 2010 at 06:36 PM, Anonymous (not verified) said:

Comedy is hard

Post new comment

Your name:
Anonymous