

Rural Broadband Expansion in the United States: Citizen Perception as a Social Process¹

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Abstract:

While the macroeconomic and social inclusion benefits of broadband are well understood, there is little investigation into the question of how it is that citizens come to understand and interpret broadband as a matter of wider social importance, and how they engage with processes of broadband deployment and adoption. Based on an ethnographic study of three rural areas in the United States, we found that both elites and the disadvantaged, policymakers at various levels and ordinary citizens, drew on the same set of cultural understandings to interpret what broadband expansion means to them, and at the same time steer broadband deployments in ways they saw fit. These cultural understandings enabled a conversation to be had about what broadband means amongst these actors, and enabled ordinary people to be engaged with broadband policy. We found three social and cultural principles that are longstanding artifacts of American culture that set the terms of engagement amongst the actors: beliefs about individual autonomy and agency, notions of citizenship (i.e., how people come to be included), and ideas about social class and hierarchy.

Introduction: Why Culture?

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There is now an extensive literature on the ways that information and communications technologies (ICTs) affect society, from economic growth to social inclusion. There is a widespread consensus that national investment in ICTs yields economic growth—a consensus that forms the starting point of the ongoing debate within the scholarship on how this impact can be measured, how much effect there actually is, what form it takes, and the social distribution of benefits ((De Ridder 2007; Forman and Greenstein 2009; Kolko 2010). Still others argue that broadband access ought to be expanded on social inclusion grounds. A recent SSRC report to the FCC (Dailey, Bryne et al. 2010) observed not just a direct economic penalty being paid by individuals not currently online, but a host of social exclusions as well. Basic life tasks such as banking, social services, job search and education are migrating online, are increasingly difficult to carry out without internet access. The SSRC report found that the case for broadband has already been successfully made to the public, even amongst non-adopters. That is, there were few in their study of marginalized and underserved groups who needed convincing of the value of being online (Dailey, Bryne et al 2010: 15). With few exceptions, we found too that the digitally excluded are well aware of the price they pay for their exclusion, even if this awareness was diffuse. The digital divide scholarship clearly shows that as some divides close, others open up. Gaps may be closing but they are deepening (Dijk 2005), and quality of access as well as ubiquity are now equally at issue (Berkman Center(2010) Given the widespread consensus from both social and economic perspectives that broadband has on the whole positive benefits, the debate is no longer why encourage its expansion but how.

While individual level benefits are well understood, and the case has been made from a macroeconomic perspective, the focus on identifying benefits has left a gap that is increasingly important to fill. What is currently missing from the discussion is the question of how it is that citizens come to understand and interpret broadband expansion as matters of wider social importance beyond their own individual concerns. That is, while ordinary citizens believe in a general way that broadband is necessary as a matter of economic development and social inclusion, they also have their own working models of how it is that the desired effects might be achieved and what the process of delivery might mean for them. These are not formal models that an economist might produce of how broadband achieves its economic effects, nor do they necessarily match the models of how policy mechanisms work to overcome barriers to adoption derived from various branches of the social sciences. Rather, they are the day-to-day workings of culture, a disposition and “habitus” (Bourdieu 1977) that constitute a framework for reasoning about how different social entities relate to one another.

Identifying these lay models fills an important gap in the technology policy literature. The question of how to reach underserved groups is a question that anthropology, with its particular ability to analyze societies as an interconnected web of social significance (Geertz 1973), can offer a perspective on—one that complements particularly well other disciplines focused on individual-level adoption decisions or

macroeconomic-level studies of the effects of broadband. Examples of what could be at issue in the 'how' might include the priority placed on achieving full ubiquity vs speed (Berkman Center (2010), prioritizing wireless vs fixed line broadband (or remaining technology neutral), how anchor institutions are prioritized (Tapia, Blodgett et al. 2009), expanding from anchor institutions to household adoption, the choice of institution and other actors to deliver broadband and service its users, siting wireless towers, how communities get prioritized for broadband delivery, etc.. This is a partial list, of course, and policymaking is only one determinant of how these trajectories play out. What they have in common, however, is that they are social processes that link supply-side factors such as policymaking and private sector decisionmaking with demand-side issues of adoption, so often treated as separate concerns and unconnected lists of barriers to adoption in the policy literature. Another thing that they have in common is that they encounter in some way non-expert understandings and cultural reasoning about how social entities relate to one another that we argue has been missing from technology policy discussions. Our premise is that encouraging high levels of citizen participation and indeed uptake of broadband-related programs requires both policymakers and the private sector to take into consideration the additional cultural assumptions citizens are making. This is not just an issue of what excluded groups want (which we know already: broadband), but how they want it delivered and what they want it to 'say' to them, symbolically as much as through everyday usage.

The global experience in ICT for development projects demonstrates that there are ways of reaching out to citizens that might be interpreted as appropriate or inappropriate, culturally sensitive or culturally insensitive, by the very constituents who are the intended beneficiaries. For example, the ICT for development literature is full of case studies of well intended projects for delivering access to broadband that, after initial fanfare, go underutilized ((Heeks 2002), (Kumar and Best 2006)), used by the wrong people in ways that do not accomplish stated goals of social equity (Parkinson and Lauzon 2008) or come to be seen as downright pejorative by those that they intend to benefit (Ratan and Bailur 2007). Despite extensive project evaluation efforts, the focus of evaluation has been on what people want to do with technologies at an individual level, and do not specify the cultural workings of the process of roll out (see (Stevenson 2009), or the vehicles through which individual level concerns like access to education and so forth get construed as on the same page with national agendas. We believe this has contributed to the poor track record. For example, in India a well-know telecenter project (Kuriyan, Ray et al. 2008) ended up sending mixed signals to its intended beneficiaries not because of the services it had on offer (educational and e-government services) were not in demand, but because it was run as a public-private partnership that did not articulate what this partnership meant to its end users. Without an active strategy for managing perception of the public-private partnership, the people who were supposed to benefit most (working classes and below) believed it was a telecenter for the wealthier middle class because of the private sector component, and the middle class in turn believed it was beneath them to come to the telecenter because of the public sector associations. Without the middle class paying for some of the services, the business model was not sustainable. This is not a natural inevitability of having a public-private partnership structure per se; it is the outcome of how that partnership is articulated to project beneficiaries, and how that interacts with cultural beliefs about

class, and in particular which social classes should engage with which institutional entities. As the United States moves forward with expanding access to broadband, it is worth specifying what relevant American cultural beliefs are so that it can anticipate and avoid situations like this.

Our study used the methods and understandings of culture developed within anthropology to identify the social and cultural dynamics that shape perceptions of broadband expansion in U.S. rural areas. We explicitly steered clear of any attempt to assess whether there is buy-in or perceived legitimacy of specific policies in any of the arenas outlined above. The deeper cultural frameworks we wanted to surface are broader and more longstanding than any particular piece of legislation or project; therefore tying them to any specific policy measure or program seemed wrongheaded. In addition, both the data and the theoretical scholarship suggests that to think about the relationship between citizens and broadband expansion as a case of whether there is opinion in support or against, is overly simplistic. The anthropology of adoption of new products and programs ((Mazzarella 2003; Holt 2004) suggests that the most successful are those that play on cultural inconsistencies and tensions. Such inconsistencies are pervasive in all cultures, and are an important component in driving social change (Leach 1954). Opinion measures tend to obscure the logic behind the opinion formation, which is as messy as it is contingent. Yet, however difficult, is useful to be able to identify what those inconsistencies are so that they might be addressed in some way, explicitly or implicitly. With these concerns in mind, our goal was to share with both the policy community and the private sector the what these cultural tensions and frameworks are, how they generate reasoning about technology, so that others might build further studies targeted to their own specific market and policy concerns.

Methods

In line with longstanding anthropological methods, we conducted participant observation alongside in-depth interviewing. We conducted 38 in-depth, in-person qualitative interviews lasting from one to three hours, focusing on three rural communities—two in Oregon and one in Maine. We selected interviewees to provide the broadest range of possible stakeholders in broadband policy, from small business owners, to local officials, local ISPs, to end users. We interviewed people who had a wide range of situations in relation to broadband: some who lived within town centers had access to broadband, some were on dial up, some had to create their own last mile solutions, and others who regaled us with stories about the constraints of satellite or the futility of trying to get service to their particular homes. To allow for flexibility and opportunity to listen to what people had to say, our interview questions were not fixed, but they did follow a protocol. Roughly, the protocol sought to assess what the person's experience with broadband has been, how it impacts their lives, what they

have had to do to bring broadband to their area, and how they understand the infrastructure to work at both a technical level and in terms of who delivers what piece of the puzzle.

In addition to interviews, participant observation was a key component. By participating in the relevant local daily activities and keeping a fieldwork journal, one can develop a better sense of empathy and come to understand why they see the world in the way that they do and how it is people make connections between disparate phenomenon. To that end, we spent time doing seemingly unrelated activities, such as washing rafts for a local outdoors shop, climbing over rifles to get into a pickup truck to attend a barbeque, and sitting on the front porch with a group of waitresses at a local restaurant as the sun set over the sagebrush and juniper trees, letting the conversation flow where it wants rather than where the researcher predetermines it should go. The purpose is to develop a sense of connection with the community and to provide an opportunity for issues to emerge that would not have been anticipated to be relevant in an interview context. It is through this combination of participant observation and qualitative interviewing that one can build a holistic picture of what the relevant mental models are about social organization ((Geertz 1973; Malinowski 1984 (1922)).

Finally, this piece of research was part of a much larger international project that examined what makes information technology projects aimed at underserved populations socially viable, whether driven by the public sector, the private sector, or a combination thereof. This was a comparison of 27 case studies in 12 countries around the world conducted by a four person team over two years (see www.socialviabilitymeasure.info). This comparative work showed that there were three areas of social life that were consistently affecting the social viability of projects, for better or for worse depending on how the project handled the issues. Specifically, these three areas are class, notions of citizenship, and individual agency (defined and explained below). The U.S. data presented here is no exception. Below we identify aspects of how these things work and are conceived of in rural United States as it pertains to broadband by drawing on the primary data within the US, comparisons with other case studies, and relevant scholarship.

The American Dream as Cultural Nexus

In considering patterns of technology adoption in other countries, it is difficult not to see “cultural effects” and “historical contingencies” upon discovering deviations from the familiar American case. Of course, these factors apply just as much at home as abroad, though perhaps more difficult to see given

their taken-for-granted ubiquity. Over the course of our research, much of it in circumstances in which we found ourselves to be and be seen as urban outsiders in rural places, we began to resolve a number of recurring themes clustering around understandings of geographic advantage and rivalry, of the advantages and disadvantages inherent in city vs. country living, and of faith in and dependence on exceptional individual leaders. Taken together, these themes began to cohere into something like an explanatory narrative about “Americanness”, though the sense of explanation here is more akin to that found in folk myth than academic theory. Upon further analysis, the structure that emerged from our data began to take on a familiar form, one that often goes by the name “the American Dream”.

In a narrow sense, the American Dream refers to aspirations towards comfortable middle-class life, organized around respectable cars, salaried work, and single-family, suburban home ownership. Here we use it loosely to describe a number of cultural and social understandings that inform everyday action. The American Dream is a cliché, as trite as it is banal, yet in another sense too it is very real. In diffuse ways it serves as a structure of feeling, an “ordinary affect... public feelings begin and end in broad circulation, but they’re also the stuff that seemingly intimate lives are made of” (Stewart 2007). The American Dream, however fluid in people’s interpretations, nevertheless lends texture to ordinary life; it is not a set of hard and fast rules or values which everyone agrees on. Hardly: through its very banality and taken-for-granted everydayness, it affords ample space for negotiation. “If we can agree on a ‘shared value’... that does not necessarily mean that we must agree through our actions about what such a value entails” (Herzfeld 2004:12).

One rendition of the American Dream story—a fable perhaps true for no one and yet recognizable to all Americans—might fit together in a story that goes something like this:

America is a big, open, expansive place, geographically separate from the rest of the world and unique. People from all over the world came to America to pursue their dreams. This is both problem (out of many, so spread out, how to create unity and inclusion?) and strength (space to grow, compulsion to interconnect). From this perspective, neither high-density urban life nor low-density rural life is ideal, and out of this polarization arise issues of class and power (urban elites and urban corruption on one hand, rural exclusion and rural backwardness on the other). The negotiation through these deep tensions is the construction of middle spaces (suburbs: close enough but not too close to both city and country) and middle classes (rich, but not too rich; self-reliant, but not hardscrabble). America is thus, mythically, a nation of middle-class suburbanites. This leads to a final tension: how is progress to emerge from a homogeneous, middle-class, suburban America? The American Dream approaches this through entrepreneurship, meritocratic competition, and, particularly, the figure of the Visionary Leader.

Below, we unpack what the American Dream means as it informs how people reason about broadband, showing how the tensions and contradictions within it shape how broadband is implemented and what broadband comes to signify culturally. As with the cross-country comparative work of the larger project of which this research was a part, these tensions play out in three key areas of social life: class, citizenship and agency. We have organized our findings around these.

Individual Agency: Broadband Heroes Get Things Done

By individual agency, we mean the power of individuals to shape, resist, appropriate, and consume larger systems. We also mean the power of social systems to require and train people to think and act as individuals, as opposed to acting through institutions or some other social grouping. American culture is famously individualistic. There are well-documented multiple strands of individualism amongst different communities within the United States (Kusserow 1999) but what they have in common is a focus on the individual as the primary social agent. The root of the American Dream story is about individual achievement and freedom – as both opportunity and obligation. This puts the relationship between the agency of the individual and larger structures such as government or the private sector at some odds. Even though in a straightforwardly sociological way, individuals are ineffective outside of social institutions, and social institutions are, ultimately, run by individuals, in the American cultural imagination, social structures large and small are pre-figured as a constraint on individualistic ways of living.

We can see this in the way that rural residents talked about their communities. We found residents to be well-aware of their collective disadvantage, whether through watching jobs and young people leave or watching their political preferences being overruled by distant urban elites (in their view). At the same time, residents boasted of their region's individualistic virtues, as a place where people gave each other space and support to pursue their individual businesses and projects. One theme that tied our interviews together was the sense that while far away urban places might be dominated by powerful individuals and corporations, "our" particular community had the capacity to include outsiders, self-develop, and self-organize. In turn individuals were believed to have the power to make a difference in "our" community. As one Oregon resident put it, "if you are not careful, you could end up mayor [in this town]." While in less dense places it is sociologically true that people take on more institutional roles (the fireman is also the water repair man and the town councilmember), the moral valence this takes was that this allowed residents to be an individual with some social impact, valued for their individuality.

One way these tensions between individuals and the structures they inhabit is addressed is through charismatic leaders (Weber 1947 (1922)). In both Oregon and Maine we encountered widespread talk of, and faith in, “visionary leaders”. In particular, broadband (which in their view amounted to a respectable and competitive level of Internet service) was seen as a scarce, necessary resource crucial to the region’s future, but one that would remain forever elusive if not for leaders who could both see into the future and resolve a practical path into it. Conversely, the *production* of visionary leaders, or the realization of the region’s *potential to produce* visionary leaders, was appealed to in justifying the cost, and mandating the need for broadband investment, despite its commercial unviability at the collective level. In this way, both the perceived benefits and mode of implementation were linked into a wider cultural logic about the power of the individual.

In our research we encountered people acknowledged as visionary leaders by their communities across the hierarchy of officialdom, from state governors, to superintendents of education, to municipal mayors. These were people believed to be able to both cut through red tape and to see creative solutions to problems. The most prominent was the former governor Angus King of Maine, a two-term independent who had been term-limited out of office seven years ago but whose legacy was very much apparent, not the least in the form of the Maine Learning Technology Initiative (MLTI). MLTI provides a laptop computer, educational software, and free at-school broadband access to every public school student in Maine from grade 7 on – the largest “one-to-one” computers-for-students program in the U.S. and one of the largest in the world. MLTI is as much a political achievement as a technological or educational one; it was described to us in admiring tones as having been set up fiscally and administratively in such a way to be virtually impossible to de-fund, even in times of budget shortfalls.

But beyond an example of sustainable bureaucracy construction, MLTI represents a powerful cultural achievement. King famously said (and is, more importantly, widely *said* to have said, as, for example, the current governor has incorporated this formulation into his own words), “The next Bill Gates may be in a rural Maine town right now, but would have never had a chance if the state hadn’t put a [MLTI laptop] in his hands.” The mythic figure of Bill Gates is cited here not only as the canonical example of global-scale economic, technical, and business success, heroic on the national and international scale, but also (as is explicit in longer texts of which this quote is one part) as a provider of development and riches to his home state of Washington, a loyal son to his homeland and thus *local* hero as well. King’s quote derives its power to motivate substantial technical investments in public education not only by appealing to a generalized sense fairness and meritocracy (an issue we return to in the final section), but to a very specific sense that a Maine-produced “next Bill Gates” would remain (or at least return to), enrich, and provide return-on-investment to Maine. In this way, the cultural logic creates the possibility of a kinship between the individual policy leaders who are able to bring those programs to fruition, and the recipients who might themselves become individual leaders. In turn, anything systemic about these programs is downplayed.

Aside from state and national figures and myth-making, we encountered visionary leaders and leadership in more prosaic, less celebrated, less official forms. Sometimes this would be an enterprising local engineer with often considerable technical wizardry to design, build, hack together, acquire, or find funding to deliver broadband to at least certain sectors of their community. At other times it was a clued-in municipal official who residents believe really knows the system and knows how to get things done. In a broader sense, too, many rural residents we encountered played a “visionary leader” role themselves, at personal or personal-network level. This meant that individual residents were often active agents in envisioning and providing their own last-mile solutions. One such rural resident, who with the informal help of the local ISP, set up a microwave relay tower on top of a hill, directing the signal to both his house below and his neighbor’s, described the act of setting up this tower as regrettable in the sense that he had to do this work at all, but also a source of pride that he managed to do it and had something of value to share with his community. While of course these individuals used both institutional and technical knowledge to great effect, these lay understandings of the need to ‘cut through the red tape’ and ‘just do it’ in the face of slow moving bureaucracy or a private sector hesitant to make investment, show that even though the institutional context is crucial, there is a strong cultural inclination to imagine that it is mere background to strong willed individuals.

Conversely, when it was not realistic to do things individually for oneself and others, as it mostly is in the case of broadband buildout, the tension between the cultural inclination to see things as a matter of individual agency and the reality of institutional and social power is raised. As Greenhouse documented (Greenhouse 1992), an important component of American individualism is the sense that one should not try to change others, or place claims or obligations on them. In the context of broadband, we found that nobody “expected” others provide for them. Despite the real and pressing need for broadband, rural residents at the same time had little expectation that buildout would come their way as a matter of course. This is not the same thing as cynicism: there were many public works projects in both areas that were highly valued and talked about with pride. By focusing on the individuality of charismatic leaders, rather than the systemic elements of what it is they do, it becomes culturally possible to see the arrival of broadband as something not to do with “the system”, an exception to the perceived rule of institutional failure. The focus on the charismatic leader frames buildout as a individual case brought together by an individual person, regardless of whether that individual was a neighbor, a local official, an entrepreneur, or a governor putting together the necessary institutional pieces together to make it happen. At the same time, the premium placed on “not expecting things” was sometimes used as a way to subtly but powerfully articulate that in fact, the communities under study were precisely the sorts of places that were most deserving. In the words of one municipal leader: “we know how to make do around here. So even if you invest a dollar here, I can guarantee you it will go a long way.” None of this means, of course, that U.S. broadband expansion is less bureaucratic or more; only that there are cultural incentives to underplay what is institutional or systemic about making it happen. In turn, there is every reason to construe those who do it as red-tape cutting leaders and those who benefit from broadband expansion as “deserving but not expecting.”

Citizenship: This Land is Your Land

Americans, of course, do have ways of imagining and valuing how it is they are connected despite the social premium placed on the individual as an autonomous actor. By citizenship, we mean the cultural practices and beliefs that create a sense of belonging within a national population or geographic location. For purposes of our study, we are not concerned with the legalities of who does and does not hold formal legal citizenship. Rather, we are more concerned with 'cultural citizenship' (Ong 1999), the practices and beliefs that create a sense of belonging (or alienation) within a national population or geographic location, which may or may not correspond with geopolitical borders.

Here, notions of citizenship are deeply caught up with how it is people understand and interact with the physical landscape. In our field sites, there is a palatable sense of we are *who* we are because of *where* we are. As in other parts of the U.S., physical landscape is the very material through which people imagine, and tell stories about, how they are situated relative to one another (Stewart 1996). In previous ethnographies, such as Stewart's, the image of rural land as peripheral or left out is what dominates. While people in our studies sometimes talked about themselves in these terms—using phrases like “living *out* here” as if the distance from their home to Portland were somehow much further than the distance from the state capitol to Portland at rush hour—there was also an important sense in which the rural landscape was not at all an indication of what made them peripheral, but also was an important way that they felt *connected* to others and included in the broader process of being a part of the United States. This land really is *your* land as well as theirs: an active geography of open, shapeable, democratic space. The mountains and rivers, mule deer and salmon, are literally the common ground that ties both rich and poor, urban and rural, hunter, hiker and rancher. While the rightful uses of the land are contested, the fact that all citizens have stakes and interests in it, even if those citizens do not always live directly on it, is not. In turn, it serves as a canvas on which to imagine not just how these groups are interconnected as people who could conceivably meet face to face, but how more distant strangers might conceive of larger national and international geographies, constantly negotiating and reframing what counts as a center and what counts as periphery.

One can see these notions of citizenship through everyday talk. As a few research participants in Eastern Oregon liked to say, “It’s a privilege to live in [our] county.” This saying referred to, on one hand, the unique experiences afforded by living within such a stunningly rugged landscape. We can see this most clearly in consumption patterns, which reflected the importance of and commitment to the land. When there was money spare, research participants tended to spend it on the ranch and equipment to maintain the land rather than on items individually consumed. Stewardship of the land, and who was doing what on their ranch, was an important topic of local gossip and speculation often held in long car rides in which people would point out “that’s so-and-so’s ranch...” along the way, discussing it in great detail. On the other hand, the saying simultaneously referred to the enormous cost paid for that privilege in terms of foregoing the ready availability of nearly everything—infrastructure, consumer goods, economic and educational opportunities. The sense of privilege involved no illusions that these things would be magically delivered to them. They are well aware that they chose to stay in rural areas and keep it alive.

Yet it is a privilege that rural people do not monopolize. Urban people regularly come through the areas we studied to see the landscape, fish or hunt, motorcycle through, camp or retire. While there is little desire to turn the county into a bustling metropolis, outsiders—particularly those who learn the local ways of doing things, and bring their small businesses or children with them—are generally welcomed. The specter of becoming a ghost town is very real: in some parts of one county we studied there are literal ghost towns from gold rush days. Locals continue to talk about them as ghost towns even though a few families do in fact live in them. The abandoned churches and barns remind people on a daily basis that not just decline, but outright social extinction is possible.

As we conducted our interviews, people could easily recount the ways that the lack of broadband constrained their individual lives. Yet, when one listens more carefully, it slowly became clear that the language that people were using about the benefits of broadband in fact reflected a wider concern for maintaining the connection between rural and urban environments. As one bed and breakfast owner, an in-migrant from Portland valued for her ability to provide local employment, put it: “we need broadband here so I don’t *have* to live in [expletive] Portland.” Of primary importance, and what most animated discussion, was where children raised in the area ultimately choose to live. Locals send their children to college in urban areas, but the concern is that they might not move back. A lack of broadband makes it less likely that they can create for themselves viable jobs even if they wanted to return. For those who had returned after college, this constraint indeed made life difficult for them personally, but what was more important was what it meant for the community. Returning was just as much about keeping the community strong; the prospect of not being able to do this was a real loss for younger people. In turn, rural tourism and in-migration for retirement, predicated on the privilege of experiencing the cool of the river on a hot summer’s day, the sagebrush-dotted buttes and the occasional summer storm that whips through the valley, abated the otherwise real possibility of becoming a ghost town.

The way people talked about broadband shows that rural and urban divides are not as much as an us/them, digital haves and digital have nots as one might think. Although not consciously, rural people were talking about the need to expand broadband in terms of urban expectations, and how urban people would come to understand and value the area. Local councilpeople were well aware that incomers now have certain expectations that broadband will be available as readily as water. Yet in other senses the shoe was on the other foot: local children who grew up and wished to resettle were every bit as rural as those who never left. In these ways, “urban people” and “rural people” are not static groups: at some point or another we all might be tourists, retirees, as locals who had temporarily moved out, or people who do not wish to spend their entire lives in cities. By focusing on the importance of broadband for people who move back and forth regardless of where they start or end up, all research participants were recognizing this. They were subtly pointing out that both “rural” and “urban” has just as much interest in rural broadband expansion as the other. As citizens, they understood themselves and others have equal choice in the decision to live in whichever part of the country they wanted. Whether urban or rural, the land was what was shared.

As in the case of the focus on charismatic individual leaders, there was a link between how the benefits of broadband were imagined, and how people thought it might be implemented. The cultural logic behind notions of citizenship are, on the surface, all about economic development, and yet so much more than that. While locals readily said that broadband is necessary so that small businesses might be maintained and young people might sustain a living, underneath this lies much deeper ideas about how people believe they relate to one another. It has everything to do with ideas about how one comes to be included as a member of society, which, crudely and tritely put, is about the fact that this land is your land and we need to share it somehow. Of course, this value is in every way a cultural tension and contradiction. Just beneath the surface lies issues of who ‘really’ belongs there: how long one has to have been part of the area to be considered an insider, how much increase in population is really desirable, etc.. Yet these tensions do not take away from the realness of the way that land and ‘open spaces’ creates a sense of something that is shared, and the way that rural people saw broadband as an important way of keeping those spaces open to all who may come. As in Carol Greenhouse’s study of a small town in Georgia “new residents could cross the line between newcomer and whatever the opposite was relatively easily; it was the abstract and hypothetical newcomer that was the object of local ambivalence” (Greenhouse 2006: 235).

In turn, where broadband expansion was most easily achieved, it took forms that made it acutely obvious or visible that it was not “just” for rural people. For example, in one town under study whose leaders had long lobbied various fixed line and wireless providers, broadband backhaul became available only through a homeland security grant given for the purposes of emergency preparedness shortly after

9/11. What emergency preparedness was, however, fit these notions of citizenship well. The grant was about enabling urban people to retreat to a rural area should cities come under threat. This repositioned the land, symbolically at minimum, as not something that was a backwater but of national importance that rural people had an important role in maintaining. In turn, local police and fire service (to the extent there is fire service: fire trucks do not go to ranches outside a certain radius from town) improved their ability to respond to local, more everyday emergencies, many of which were caused by stranded hikers and river rafters from out of town. In these ways, broadband buildout made it possible for this land to be your land, and at the same time made it possible for local people to not have to expect things in their own particular interests (see previous section). That it happened in this specific way is not a 'natural' outcome of economic externalities of infrastructure building, or the supposed inherent neutrality and general purposeness of infrastructure (a view long ago debunked by Graham and Marvin (2001)). Instead, it reflects American understandings of how inclusion works: a pattern we did not see in other contexts around the world.

Similarly, the prospect of broadband expansion is used as a cultural resource to renegotiate and call into question what counts as central and what counts as peripheral. That is, broadband hits on the cultural tension between center and periphery in productive ways. The anthropology literature shows quite clearly that what is center and what is periphery is not a neutral function of population density, but a culturally loaded construct that gives shape to social relations ((Ferguson 2006) (Gupta and Ferguson 1997) and is always relative to the position of the speaker (Tsing 1993). In some instances we found local leaders who used broadband buildout and the idea of landscape as something that was shared by all Americans as an occasion to subvert traditional assumptions about what the 'periphery' was. From a technology strategist involved in Maine's "Three Ring Binder" Project, a successful 25 million dollar BTOP grant to lay three fiber backbone "rings" through underserved parts of Maine:

" Existing fiber from Europe comes into New Brunswick, loops all the way around New England, only entering the US by I-87 in New York. The new fiber could put Maine at the center of the Internet: in one direction, Europe; in another, Canada; in another, America."

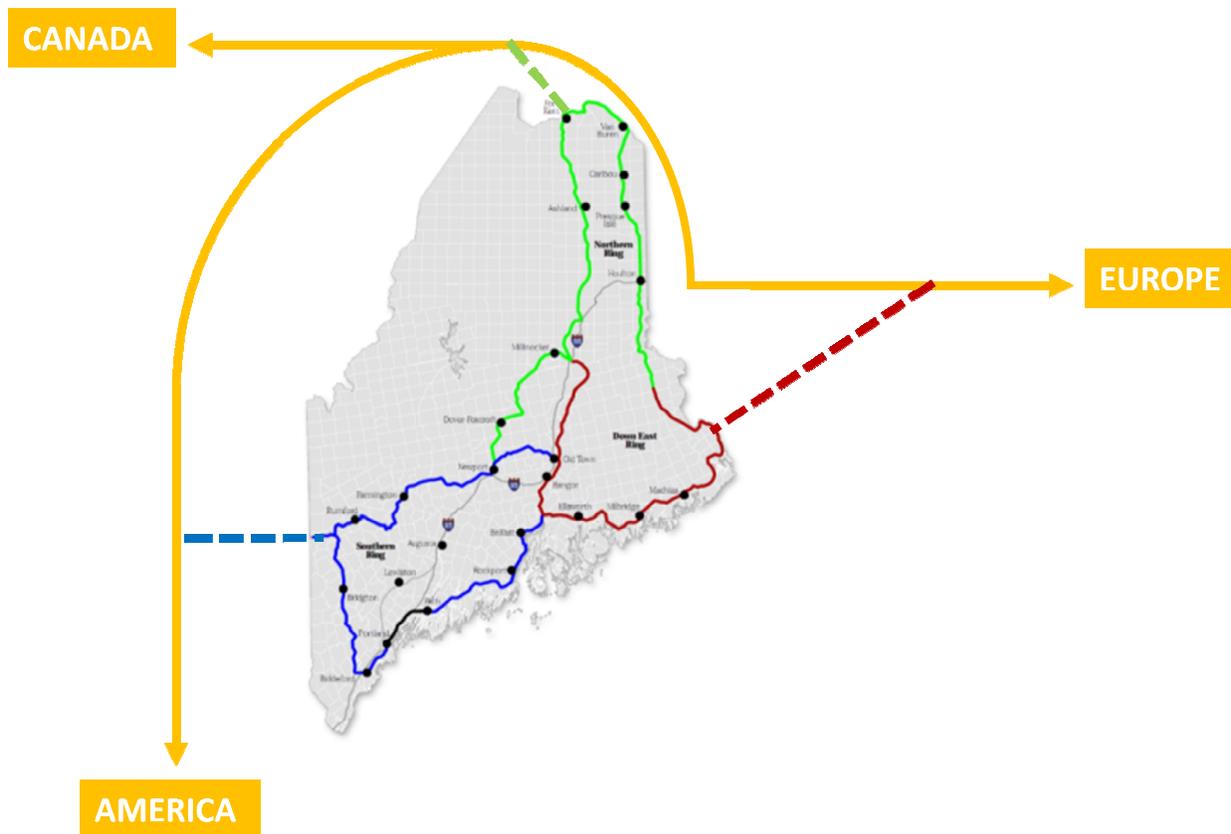


Figure 1. Maine's Three Ringed Binder Project.

Here, this technologist is not unaware that the Internet was designed to be a distributed network that has no 'center.' But in his talk he offers a series of symbols and metaphors for thinking about technology and geography. The 'centerless' technology nevertheless does have centers, whether it be backhaul nodes or server farms or Silicon Valley conference rooms where decisions are made about its design. How these are valued and by whom is up for negotiation. Such symbolism speaks not just to local residents but to these other centers too who might find they have a stake in Maine they did not know they had. The imagery of a 'binder,' further speaks to a notion of citizenship, people in both urban Portland and northern Maine figuratively being 'bound together' through fiber optics, both of whom have a shared interest in being the 'center' of a global infrastructure connecting Europe with North America. The visualization in turn makes it possible to imagine community (Anderson 1983) differently, even though there are real tensions between what rural Mainers describe as "Northern Massachusetts" (i.e., the wealthier, more densely developed southern part benefiting from investment from Massachusetts and beyond) and "real Maine". Talk of the "center of the Internet" also sets up a homology with an equally 'centerless' United States that nevertheless has contested, multiple centers. Whether New York City is the 'center' of America or the 'heartland' is, depends on the social effects the speaker is trying to achieve. By using landscape as a framing visualization, the binder hits on this

tension between unity and fragmentation to productively call into question why we talk about some places as excluded and marginal and others central.

Class: The Next Bill Gates

Although there are many ways to understand and approach class, here we here we approach it as a social phenomenon beyond income, which includes cultural understandings of hierarchy and privilege that may also include education, upbringing, one's social circle, potential for social mobility, and residence. What matters about class is what people think matters about class. In the United States people believe being "middle class" is what is "normal", a belief that sets up expectations that makes it seemingly impossible to be either very wealthy or very poor. For example, Pew Research Center (Taylor, Morin et al. 2008) reports that four of ten Americans with incomes below \$20,000 say they are middle class, as do a third of those with incomes above \$150,000. To not be able to even self-identify as middle class leaves one much more outside mainstream normativity, and much more excluded, than it does in other societies.

It is no small contradiction that this sense of middle class normativity sits alongside a widely shared belief that economic exceptionalism is both possible and desirable. In how people account for their own and other's life trajectories, success is largely equated with earning large amounts of money, both more than one's peers and one's parents (Ortner 2003). There is a belief that class structure is permeable, and ought to be permeable, placing a degree of obligation on the disadvantaged who 'should' seek to beat the odds. And yet not: one might have been, or put their children on, 'track' to succeed (Ortner 2003) through education and other middle class accoutrements, almost fatalistically securing one's fixed place in society and thwarting the taboo subject of downward mobility.

These ideas about class shape people's reasoning about broadband. One widespread concern seen in both Maine and Oregon was that people who marry someone solidly middle class would have a hard time convincing the spouse to live "out here." Again, a large part of "out here" was really about the lack of broadband. This concern again focuses on young people who had gone off to college and are facing the possibility of returning. Rural "isolation" in many instances was used as a euphemism for class: with such strong communities where people go to great lengths to help one another and remain involved in each other's lives, "isolation" in any straightforward way is hardly the real problem. Rather, in raising the figure of the unwilling urban spouse, isolation serves as code for class distinctions and exclusions.

The absence of broadband symbolized and crystallized the perception that to live “out here” is somehow marked, outside what is considered to be the norms about what a middle class lifestyle is, which might be tolerable to those used to it, but less tolerable to others. Eastern Oregonians consistently told us that life out here is “hard”; yet from an anthropological point of view life can only be seen as hard in relation to the plausibility of something less hard. In the US, a cushier, middle class lifestyle is the point of departure in media and cultural representations of what is “normal”. Broadband is one way to negotiate the tension. It makes it conceivable to live there for outsiders, and removes, even if just symbolically, one way in which rural working class people are marked as different from those more securely middle and upper class.

While the “next Bill Gates” evokes the belief and faith in individual charismatic leaders, it also reveals the relationship between beliefs about broadband and beliefs about class, and shapes the form in which broadband is delivered. The ongoing focus on education as opposed to other possible priorities is not a coincidence if we look at it in terms of American views on class. Education is still seen as the primary vehicle through which such radical social mobility might be achieved, and at the same time the vehicle through which class stasis might be maintained. The Bill Gates biography resonates precisely because it embodies the contraction between the idea that “everyone” is middle class and expectations of perpetual upward mobility. It both evokes the importance of “normal” middle class upbringing (Gates had early access to computers in schools, a privilege now normative but then spoke volumes about his socioeconomic status) and simultaneously the rejection of the elitism in the interest of even further social mobility (Gates dropped out of Harvard to start his business). Broadband, by analogy, is believed to put people ‘on track’ by enabling distance learning and enhancing education, and yet allows people to surpass it by giving them the tools to entrepreneurially ‘find one’s own way’ by learning to code, developing new media, and starting online businesses and sustaining them in scalable ways. In parallel, those same charismatic leaders bringing Internet to communities present themselves as “simple” but entrepreneurial people, as if there were no class hierarchy from which they came.

Interwoven with these concerns was a sense that without broadband Americans would lose their status as the global upper class. In two of the three fieldsites there was a preoccupation with using broadband to provide children with education in the context of competition with “the Chinese”. “The Chinese” served as figure symbolizing problematic upward mobility, a figure who was not a part of “normal” middle class-ness. While in one sense the issue was one of national competitiveness and economic development, the tone and shape of that discourse had much more immediate social effects. It sustained a sense that there is some degree of equality amongst ourselves. For example, it made it possible to talk about “our” children’s education in the collective if the “real” competition is elsewhere. Simultaneously, the frequency with which “the Chinese” were talked about as something to fear positioned American middle classness a normal state of affairs, jointly shared by even those who technically were not middle class, to the extent that the “Chinese” were believed to lack it. In these ways, broadband is not merely about education or economic development, but is a cultural resource to

imagine how class works —how its norms are both achieved and broken. By talking about broadband's importance for education and economic competitiveness, Americans are having a much deeper underlying conversation about class hierarchy.

Conclusion

As in any other place, technology adoption and technical infrastructure provision in the U.S. is shaped not just by economic and technical contingencies, but, in implicit and sometimes explicit ways, by cultural forces, tensions, and understandings as well. While some of these manifested themselves and get renegotiated through recent events and realignments such as BTOP and the publication of a National Broadband Plan, they have deep and long roots. In this paper, we have sought to draw out and make sense of the hopes, concerns, ideas, and blindnesses expressed by or apparent in the many stakeholders in rural broadband policy we interviewed and spent time with: stakeholders who, in many cases, were quite distant from public and private sector decisionmakers. Tying these together, unsurprisingly in retrospect, are particularly *American* ways of thinking about individualism, geography, and class: what we call the American Dream.

Dreams are of course, at a literal level, illusory, occurring when the eyes are closed and normal consciousness suspended. It may be tempting to dismiss some of what we were told – e.g., that new fiber could reposition Maine as the “center of the Internet”, that decent broadband could turn around long-term trends of de-industrialization and de-population in remote parts of Oregon or Maine – as illusory or wishful thinking. It is certainly the case that the dreams we encountered around the broadband future, around indeed *any* future, for rural areas were at best partial and self-limited, following their own logic and scope and narrative. We did not hear, nor did we expect to hear, consistent and exhaustive comments related policy frameworks, systematically outlining and weighing options and trade-offs as one would hear in inside-the-beltway or other rarified forums for policy debate and consensus.

Nevertheless, what we did hear was people drawing on the same repertoire of cultural resources to shape broadband expansion and make it meaningful, regardless of how they were positioned within the system or what ends they were trying to achieve. It was the consistency and pervasiveness of the American Dream, however fraught with self-contradiction, that we found most intriguing. Both elites and ordinary citizens framed implementation as a matter of individual, and sometimes heroic, leadership, regardless of whether the speaker thought it was better for national service providers, state-level entities, or ordinary citizens to be building the infrastructure. The idea of a ‘homeland’ served at once to shape the infrastructure in ways that prioritized well-placed urbanites and their needs for

emergency services, and at the same time call into question long-held assumptions about what makes a place central or peripheral. The possibility that the next Bill Gates could be anywhere, including rural Maine, focused broadband investment in schools that at once transcended hierarchy and put people on 'track' to find their way to the top of it. People who don't "expect" to receive broadband use that as a way of indicating that it is, in fact, a well deserved and socially productive investment.

Through this, the cultural dreams we encountered had and have real effects, both in how and why broadband is valued, but even moreso, in the ways it gets built out and adopted. Visionary leaders were not just rhetorical devices, self-created facades – they really did have visions, of very particular sorts, and if not complete realization at least credibly partial implementation. Mental geographies of where broadband was currently, and where it would or should go, were not just curious images in the mind but actually shaped what kinds of broadband infrastructure were exciting vs. not, made sense vs. not. Pervasive yet indirect talk of class were not just a question of the digitally literate and the digitally excluded, but reflected deeper inter-reliance and competition for resources, political, technical, economic, and cultural. What we took away from these investigations was not a set of recommendations for policy ends nor means, or a prioritization of problems of different sizes and tractability to be solved, but a way of looking at the broadband landscape as an interconnected cultural phenomenon and ongoing social negotiation with its own logics and assumptions.

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