The Tribal Digital Village:
Sovereignty, Technology and Collaboration
in Indian Southern California

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Background

On February 14, 2001, Hewlett-Packard Philanthropy awarded the Southern California Tribal Chairman's Association (SCTCA) $5 million over 3 years to build a "Digital Village", a collaborative project to bring computer technology and services to serve a vision for the future developed within this community made up of 18 Indian nations. This project forms the research site for my current book project. The HP grant ended in March 2004, and I collected permissions and interviewed tribal leadership, participants from the Tribal Digital Village staff, tribal representatives and other participants, and Hewlett Packard representatives from October 2003 through July 2004.

The Setting

The San Diego region reservations have a population of approximately 7,675, residing in isolated and scattered communities stretching from the California-Mexico border into Riverside County—an area encompassing 150 miles and requiring 4.5 hours to drive. The current patchwork of reservation lands springs from a history of forced removals, resettlements, and the consequent impoverishment that has come with the loss of lands and lifeways. These historical processes fractured family lineages that once moved widely over the region while functioning as coherent distributed Kumeyaay, Luiseño, Cupeño, and Cahuilla communities.

This legacy has marked the reservations with a number of indices defining an "underserved" population. About 59% of the population has a high school diploma. Most reservations experience an average of 50% unemployment rate, and 75% of Indian students qualify for free or reduced-cost school lunch programs. Recent federal reports have shown that rural Americans and tribal areas will lag behind others in gaining access to advanced telecommunications services if deployment is left to market forces alone — a finding that means San Diego tribal communities are doubly disadvantaged. Further, although many individual programs function to address portions of these problems, the fragmentary nature of the community results in a non-uniform delivery of services among the various tribal reservations.

The Tribal Digital Vision

Each of the 18 Native American reservations in San Diego County has its own history of the forced removal of its people, resettlements, and the impoverishment that has come with conscious policies of marginalization. Current policies of self-government take shape on semi-rural reservations with limited economic and human resources, not withstanding the success that some tribes have had with gaming businesses.

Central to the appeal of the vision to Hewlett-Packard and tribal members was the recognition of the historical connection between the current patchwork of reservation lands, and the larger goals of the Tribal Digital Village. Just as these historical processes fractured family lineages that once moved widely over the region while functioning as coherent distributed Kumeyaay, Luiseño, Cupeño, and Cahuilla communities, the Tribal Digital Village application proposed to use computer technologies to create a distributed digital community that mirrors and amplifies the community and kinship networks that have historically sustained these tribal communities.

The successful application to Hewlett-Packard possessed 4 interlocking ideas based on this situation:

1) build a high-speed, broadband network connecting the San Diego reservations to each other and to the Internet;

2) use the network to overcome the distance separating tribal communities from one another and to provide tribally directed access to the resources and opportunities available in the urban areas of the San Diego region;

3) build training for effective use of technology into the community to ensure tribal community control and future sustainability;

4) produce a model applicable to a number of other regions in the United States with comparable distributed tribal communities.

Project issues

A number of factors make the Tribal Digital Village project a compelling site for study. Although a number of communities have begun large-scale internet connectivity projects, none have the combination of:

1) a focus on American Indian communities;

2) the significant private sector investment in a collaborative and geographically distributed community "vision" without a written project plan in advance (an "upside-down" grant);

3) the comprehensive scale of the project, focusing not only on connectivity but on enhancing tribal programs in education, cultural preservation and revitalization, economic development, and tribal governmental operations, through the use of appropriate computer technology;

4) the challenge of tribal collaboration of 18 sovereign Indian nations under an umbrella group, the Southern Californian Tribal Chairman's Association, whose board is made of the 18 tribal chairmen/women);

5) the problems posed in using community-directed techniques to build technology into tribal communities that have experienced historical trauma in part due to the deployment of technology by non-Indians;

6) Hewlett-Packard's interest in learning from the Tribal Digital Village how to develop projects and programs that will work commercially other underserved areas in the United States and in the Third World;

7) a focus on building into the project sustainability after the grant period.

A set of issues addressed is summarized in the following chapter outline.

Introduction

The Tribal Digital Village involved significant partnerships though the Southern California Tribal Chairman's Association (SCTCA), a consortium initially created to pursue Federal government grants and agency contracts that the small size of the individual tribes made difficult to secure. In February 2001, Hewlett Packard Philanthropy announced the award of a $5 million "Digital Village" grant to the SCTCA, in partnership with Indian education, health, and cultural programs, local school districts, community colleges, and the University of California at San Diego. The grant funded a vision of a digitally connected tribal landscape that would in some ways mirror the existing but fragmented relationships that still exist over the region, and in other ways might work to reconnect historical forms of interaction and cooperation since disrupted.

By March 2004, the Tribal Digital Village consisted of a wireless internet network covering over 200 miles of point to point connections in an area of about 75 by 150 miles. The network included 15 sites for radio towers that made up the backbone and relays to reservation sites, connections to almost 50 tribal buildings housing over 900 computers, and regular service to over 1500 users on the reservations. From a data rate of 3 megabytes per second, the backbone team prepared to upgrade the wireless network to 45 mbs, faster than many wired systems. Tribal members had learned to build, troubleshoot, and maintain the network, and had built the towers on Indian reservation land. Each reservation housed a resource center, a well-equipped computer

laboratory integrated with the educational, cultural, and community programs offered by the tribe. Regular training programs provided basic computer and internet skills, professional level network certification, after school educational programs to compliment school curriculum, online education including courses in regional Indian languages, as well as training with digital tools for cultural education, renewal, and preservation.

At the end of the Tribal Digital Village grant, the SCTCA created a new for-profit entity, Southern California Tribal Technologies (SCTT), in order to institutionalize plans for the future sustainability of the network. A digital print shop opened in Vista CA, featuring HPs digital large format and variable data printer technologies, a business wholly owned by the tribes in collaboration. Combined with Hi Rez Digital Solutions, the future plans for Tribal Digital Village to market excess bandwith as a wireless internet service provider to non-Indian homes and businesses near the reservations provide a revenue stream that will help sustain the wireless backbone. In October 2005, a professional audio and video production laboratory opened at the Tribal Digital Village headquarters at Pala. It enables tribal members to produce their own content for use over the web and in their own communities. The invitation invites tribal members to "record music, archive Tribal stories, create lessons to teach Birdsongs, shoot movies … we built the facilities, you create the content".[1]   In broad areas of education, economic development, cultural integrity, and tribal government and community affairs, the Tribal Digital Village represented a dramatic, sustained, and ongoing digital infusion into the structures delineating San Diego county's Indian country.

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[1] Tribal Digital Village e-mail invitation, "Announcement of Studio Opening. Please Attend", 10/3/2005.

Outline:

1. Discussion of research questions:

• Viewing the Tribal Digital Village Project as a window into the construction of tribal sovereignty in Southern California.

• Brief description and historical background to explain the genesis of reservations and how Southern California bands related to the land and each other historically.

• How do the Indian communities in San Diego county tribes incorporate digital technology within a tribally-directed program?

• What are the changes that the tribal perspective brings to the technology, as well as those that the technology introduces to the tribal communities?

• How do the tribal communities understand and manage technology's role within the context and processes of globalization and in negotiation with the concepts of "development" and "modernity"?

2. Discussion of TDV and the questions above in the context of southern California and general Native American history, post-colonial studies and recent work addressing indigenous epistemological positions.

3. Brief narrative of the collaboration in response to the Hewlett Packard Digital Village grant competition leading up to the $5 million award.

Chapter 1: Place – Building the Tribal Digital Village

Chapter 1 provides an overview of the goals, design, organization, and achievements of the project starting from the general perspective of the Hewlett Packard philanthropy executives running the Digital Village Program, the HP liaison to the Tribal Digital Village, and other non-tribal partners. Creating a partnership between tribal and non-tribal partners comprised a major part of the project as it evolved from its inception in early 2001 to its shape and scope in 2004 at the end of the direct involvement of Hewlett Packard through its Digital Village grant. Within this historical narrative, major analytical themes emerge. Concepts that resonated with tribal members' views of their historical understanding of tribal-ethnic identity and experiences of interacting with non-Indian people and institutions provided powerful shared meta-goals that transcended significant differences in tribal, family, and individual interests in the project: using the internet as a means to mirror and amplify the historical networks of kinship, trade, and ritual interconnection among the linguistic, band, village, and extended family distinctions that exist in the region; the

need for broad-based education and capacity building to make new technologies relevant and useful to tribal community members; and the principle of bringing knowledge to the tribes that then permanently resided within using a "train the trainer approach.   The process of publicly "visioning" the project, and then shaping governance and implementation groups to deliver upon these community-directed goals, forms the narrative structure of this chapter.

History of Tribal Digital Village
Project structure and direction
Building a wireless backbone
Education and Culture
Economic Development and Tribal Operations
Challenges
Accomplishments
Transition from HP Corporate Philanthropy project
Future possibilities

Chapter 2: Taking it Tribal – The shape of Sovereignty

This chapter will illustrate how the tribal community, at multiple and overlapping levels, took aspects of the Tribal Digital Village project and reconfigured them over the life of the project. This took place with the structure and nature of the governing and decision-making structure, the development of the main foci of the cultural, educational, and economic activities that were built on top of the wireless internet backbone. In each case, and as a whole, the tribal actors took the public and generic aspects of the project and technology, brought them within tribal control and reconfigured them to take on particular utility and ownership by the tribal community. This process reveals the way this tribal community understands and articulates sovereignty in a space that is not dominated by the constraints of the usual tribal to non-tribal government relationship.

1.   Meetings:
   a.   First Steering Committee Meetings were open to all and made up of tribal and non-tribal attendees. Most of the participants were either related to identified project partners or had an interest in some aspects of the project possibilities. After the third monthly meeting in different parts of the county, tribal members of the executive committee commented that few tribal

members felt comfortable enough to speak regularly at the steering committee meetings that the project was relying on to guide the development of TDV.

  b.   In response, the monthly planning and guidance meetings were limited to tribal representatives and the TDV staff, Executive Committee, and Tribal chairs or designees. The Steering Committee meetings remained open to all and occurred on occasional basis and for celebratory anniversary events.
2.   Programs:
  a.   Quick Start program - $10K of equipment for each tribe to establish at least dial-up connectivity and a setup of work stations, a scanner, printer, and digital camera, and digital video camera. Intended to get the tribes interested in the Tribal Digital Village project and what might be done with digital technologies.
  b.   Formal structure to run the teams to deploy the backbone connectivity and resource centers created by an executive committee at first.
  c.   Multiple, overlapping levels of approval evolved to match tribal patterns of consensus and decision-making.
3.   First Voices - language traingin and preservation
  a. Initiative forged from HP and academic contacts
  b. Visit to Vancouver with "Elders"
  c. Training trips to Victoria
4.   Web portal:
  a.   Public versions of the TDV web site. Open posting of information for all to see.
  b.   TDV web site evolved into a private system with variable content for each tribal and member based in the developing understanding of tribal interest in protecting the sovereignty and privacy of tribal activities and intellectual property. The debates over the aspects of committing language and cultural materials to digital preservation provided the catalyst for a more comprehensive understanding of what kind of protections were needed and allowed for the TDV teams to devise a technological solution.

Lines of collaboration
  1.   Meetings of tribal representatives – discussions in all areas
  2.   Changes in governance and inter tribal cooperation
  3.   Catalyst alliances (explored and realized)
     c. Kumeyaay.com
     d. Young Native Scholars
     e. CCCSAT Native American Educational Network
     f. Tierra del Sol Library Association

Shaping Technology to fit the Rez
  1.   Development of audio ethnography training & kits.
  2.   Example of Web portal development.
     a.   Enables levels of collaborative efforts, repurposing and reconceptualizing technology designed for corporate or government use.
     b.   Manages complex network of associations and responsibilities

> c.   Potential solution employing digital technology to solve the problem of needing to enable to tribal members to use appropriately the digital tools to propogate, protect, and protect cultural property rights.
>
> 3.   Choice of the digital printing business out of all of the economic development research and discussion. In the process, tribal members and outside participants reproduced and then rejected the history of non-tribal ideas and aspirations for tribal economic development.

Chapter 3: Placelessness – Tribal Digital Village and Global Indigeniety

The discussion that follows is meant to provide some idea of the central concept of the chapter.

Native American communities recognized by the United States as tribal entities are not in a post-colonial situation, either in terms of their constitutional and legal relationship or their lived experiences. As "domestic dependent nations", the realities of tribal communities includes vestiges of a colonial relationship, a history of internal colonization as a part of successive US government "Indian policies", and some stage of the always becoming but never realized post-colonial future.

Tribal San Diego is located far to the east of its urban counterpart, in rural and generally inhospitable terrain. For example, the major wildfires in San Diego County in 2003 and 2007 burned substantial portions of ten of the reservations during each event.

In 2002, the Tribal Digital Village represented the largest wireless internet system in the world, stretching from the Mexican border to Pala reservation. At the beginning of the project, it was built out as an experimental outreach extension of the High Performance Wireless Research and Education Network (HPWREN), an NSF-funded wireless internet system created as a collaboration between research scientists at UCSD's Scripps Institute of Oceanography, and San Diego Supercomputer Center. Extending the wireless technology utilized by HPWREN became the first wireless internet backbone of the Tribal Digital Village. At the end of the project, TDV became a separate network, with its headquarters and server farm in office on the Pala tribe's reservation lands, and provides wireless connectivity to almost all of the reservations in Sna Dieog County. All the towers for the wireless radios reside on tribal land, and they were designed, built and are maintained by tribal technicians. The entire network is run by the tribes and now simply a part of the tribal infrastructure. This wireless network in quite robust, providing 45 megabit speed along major nodes. This

"enterprise-level" wireless internet service is now offered as a part of the TDV collaboration to all tribes in the region.

All sorts of digital technologies have been built into the programs and services provided by the tribes using this network. The process of building the Tribal Digital Village brought about community discussion and decisions about the use of technology to work with indigenous languages, songs, and other cultural materials being captured using digital technologies.

A number of worries discussed by tribes becoming part of TDV. Have to deal with the baggage of past interactions:

• outside "researcher" coming into the community – old salvage anthropology mode of Interaction. Taste left by that lingers due to relatively recent date - 1950s.

• government to tribal relations – always a problem.

• general isolation of the reservations – issue that makes most palpable the not-yet post-colonial feelings within the reservation.

• can of worms that the technology itself opened up – issues of digital rights, of opening up a relatively closed culture system to more scrutiny.

All of these issues became part of the discussion within the community served by the Tribal Digital Village, and they all took place within the context of new gaming regime. May 2001 was deadline for all tribes who wanted to open up new casinos under the first tribal-state compacts had to have their doors open.

An interview with Juana Majel Dixon [JMD] (Pauma Band of Luiseño Indians, Director of Environmental Programs, adjunct faculty, American Indian Studies, Palomar College, and TDV tribal representative), begins with how a small tribe within this context can envision a contemporary model for educating the kids of Pauma reservation (north county in Pauma Valley, off of the 76 highway):

We knew that our children were beginning to get exposure in the school systems with Apple early on as you know they donated computers all over like crazy. And when that happened it had an impact on the learning styles of our children. I think because our children have a connection between language and a connection between cognitive features and the ability to retrieve information, use it, internalize it, go through it, sort it out, decide to extrapolate what they want and then use it, there's a very strong cultural context in which that was being done.

And I began to see the value of keeping our people tribal, culturally, maintaining a certain cultural integrity by bringing the computer industry, if you will, the computer techie stuff to our

villages as opposed to having them leave the reservation to go and acquire this because their children weren't returning home. It was just that simple.

The view that Majel Dixon presents here is really from a perspective that we do not normally see. View is very local and then it locates the narrative about educating youth within the reservation as opposed to the off-reservation. For 130 years there has been a system of taking Indian children off of the reservation for education. Initially Indian children were enticed or forced into boarding schools, and more recently to district schools relatively close to the reservations, but still outside. Schools are generally off the reservation and they offer a different educational system. This is one on many factors that increases the forced that pull tribal members off of the reservation.

The sovereign land of the reservation also involved in this view. In non-reservation, "normal" places, one gets utilities, telephones, and now internet service. This does not happen on the reservations. Generally, these services available ubiquitously off of the reservation stop at the reservation border. Utilities often travel along highways, but only if the road goes through the reservation does the tribal community get service. Otherwise, the utility stops at the boundary of the reservation. A large number of economic, legal, jurisdictional, and regulatory issues keep normal corporations, utilities and services out of the reservation.

JMD:
Pauma is unique in that it has, clearly all infrastructure stops at our border. And it's by individual basis once an individual goes before the tribe to request a simple thing like electricity. And the companies know to enter an agreement with the tribe with that individual. So it's a very regulated process we have and as a result of having that regulated we began to see that we still have rotary dial here. To have a LAN line is phenomenal. To have our computers to have that ability. Well also then I think it set us up for the perfect opportunity to not have all that messiness of lines and cables and become a wireless hub.

R: And the cost of laying wire is actually very high.

J: Oh absolutely. And then what kinds of regulatory agreements would we have to have entered into. What possible loss of sovereign protection over those portions of land that these industries would want in exchange for giving us this technology. Tribal Digital Village, as difficult as it may be to learn to be modern, to be high tech and understand from a techie position placelessness. Now from a sacred position you could understand that. It's a concept tribes know very very well and very very deep. And it's rather humorous actually for me to see technology finally arrive to the chaotic sense of placelessness.

R: That's a good point, actually.

J: It is. It's a very good point. It wasn't a foreign concept to more traditional people than most un-Indian people didn't realize.   There just wasn't a language or a vocabulary in which to describe it. There really still isn't but it's becoming. It's a process.

So now we come from this very local and specific understanding about how technology is going to help children to all of a sudden seeing the possibility of wireless connectivity as something that in fact accord with the way in which tribal people think about time and space. Vision that the tribal representatives together came up with to represent the Tribal Digital Village. The vision shows a way of connecting the map of fragmented reservation territories back together for people that already still have a sense of connection to each other, even though they are on different reservations, through marriage, through kinship, through wakes, through the bird singing, through the ways that the people circulate over the space of San Diego to the Mojave, Baja California, and all the way up to Riverside County and the Orange County coast and points north. That attenuated connection was something that could be reconnected and strengthened, as well as remade in a new kind of network by digital technology. Locates what the tribe can connect to as this placeless thing - nature of wireless communication and remake tribal network together.

Concept of *transmotion* articulated in by Gerald Vizenor in *Fugitive Poses*:

Native sovereignty is sovenance, the immanence of visions, and transmotion in artistic creations. Sovereignty, moreover, is practical, reciprocal, and theoretical, but there is no such word in the *anishinabe* language, however, the native sense of motion and use of the land in the northern woodlands does not embrace inheritance, or tenure or territory. The criteria of transmotion are in the stories of trickster creation, the birch bark documents of the *midewiwin*, the song pictures, breaded patterns, winter counts, painted hides, ledger art, and other creases of motion in virtual cartography.[2]

Virtual cartography – connects the real lived problems that the reservations face when using technology in the education of young people with the larger world and the dangers that it might pose.

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[2] Gerald Robert Vizenor. *Fugitive Poses : Native American Indian Scenes of Absence and Presence*. The Abraham Lincoln Lecture Series. Lincoln, Neb.: University of Nebraska Press, 1998, 178.

Later in the interview this idea came back as a way of locating Indians within the ethnic composition and the racial histories embedded in the social formation of the San Diego region. She began to discuss racial animosities that flare up in the local schools that the kids from the Pauma reservation attend. Juana refers to a kind of racial triangulation where white students work to set Hispanic/Latino students against Native American students using symbols, such as Cinco de Mayo.

JMD:
All hell broke loose. I could ask the question of why we think that this is occurring and I say all the other things that I said to you. But what occurred to me in my thinking at that time when I was asked what would be best for the children, from the principal at that time. I didn't have the heart to tell him but I realize now it's really true too is that we're not segregated from America. We live in sovereign societies that are separate from America. And not understanding that has created a problem because the curriculum isn't willing to educate greater America about this separateness, and our political relationship it gets remanded to a race relationship which is wrong. I began to see how do I give our children the tools and maintain a cultural context without all the "isms," that if I could help our own little village survive the digital divide process and create a wireless hub …

… that if we became in a state of placelessness we would have a greater sacred space.

J: Apart. Knowing that we would have access but we're enveloped in a protective shield of your tribe.

R: Placelessness allows you to choose how to participate in some ways.

J: Right. And at the same time still be a mentor and teacher to the children helping to interpret and see and view the outside world.

Juana Majel Dixon connects the actual racial tension within the school — which to her is a manifestation of the complicated relationship by which non-native America does not understand the concept of tribal sovereignty, tribal separateness, and the necessity of tribal ways of maintaining traditions — to a sacred space, in some sense either/ both an actual physical place or/and a location within which the tribes conceive of themselves. Connects to the not yet post-colonial condition of the tribes. To Majel-Dixon, the possibility that this technological system could allow is to enact a placelessness, a kind of Vizenorian area of transmotion that lets the tribe connect, both in space and in time, to the different resources that it needs to project both its

sovereignty and its cultural integrity, both for future generations, and for its present economic and other concerns.

One answer into the way in which the Tribal Digital Vilalge project connects the post-colonial condition and the not yet post-colonial condition of tribal southern California, to the issues at the heart of an indigenous epistemological perspective. The concept of placelessness, or transmotion, already existed as a source of indigeneity that bridges time and place, but the Tribal Digital Village provides another way of utilizing it within a global, national, regional, and local context.

Conclusion: A Historian in the Tribal Digital Village: 'Don't Let This Happen to You!'

This chapter discusses my involvement as an academic and historian working in the Tribal Digital Village, a remarkable achievement of the 18 tribes in San Diego county who, over a 3-year period, built a wireless network that connects each reservation and provides a platform for integrating digital technologies into important facets of tribal life. Taking seriously the recent published work about the decolonization of the roles of today's researchers in partnership with Indigenous peoples, led by Linda Tuwai Smith, Devon Mihesuah, and Angela Cavender Wilson,[3] I describe and comment on the paradox involved in contributing, as a historian and an academic, to a tribally-directed project predicated on the active participation of tribal members working to create an expression of meaningful sovereignty over tribal education, economic development, and cultural resources.

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[3] See Linda Tuhiwai Smith. *Decolonizing Methodologies : Research and Indigenous Peoples*. London, New York, Dunedin: New York: Zed Books; University of Otago Press; distributed in the USA exclusively by St Martin's Press, 1999; Devon A. Mihesuah. *Natives and Academics: Researching and Writing About American Indians*. Lincoln: University of Nebraska Press, 1998.; and Devon A. Mihesuah, and Angela Cavender Wilson. *Indigenizing the Academy: Transforming Scholarship and Empowering Communities*. Lincoln: University of Nebraska Press, 2004.