Community, Representation of Identity, and Connectivity

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Introduction

The Internet has emerged as a communicative form that people use to create, sustain, and become part of communities. Communication is essential to fostering concrete interactions between group members, which provide the basis for the existence of community, whether in a face-to-face situation or online. The strategies for the construction and assertion of identity within websites also play a key role in establishing commonalities and connections among group members needed for communities. Information on websites, such as discourse and images, represent and shape community and identity. Together, they create points of connectivity between participants and with other communities to which they are connected. Interaction between communities exhibiting similar characteristics creates a network of interconnections, forming a larger communal structure and a broader sense of community than previously existed. Community, identity, and connectivity dynamically work together, forming an interdependent relationship to create specific and broad communicative networks.

In this thesis research project I analyze community structures—both the content residing in these structures and the connections made among multiple structures—to explore the Internet as a space in which communities are constructed, participants interact, and knowledge is transmitted. I use a specific selection of Native American websites to illustrate more concretely the processes and structures through which online communities are constructed, as well as how these communities are related to each other structurally and rhetorically. The bulk of this study's data is collected using unobtrusive observation, performed in full anonymity on the Internet, specifically by viewing and documenting various Native American community websites. I explore how Native American online

communities are constructed within Internet sites in a literal sense—by categorizing and

analyzing key structural components within the websites—as well as how these key

components contribute to the assertion of group identity and broader communal structure. I

analyze discourse, images, and links used on websites to form commonalities between

members, establish community and represent identity. I employ fuzzy logic to represent and

analyze qualitative data collected from websites, to measure levels of connectivity between

online communities. These levels are represented in a two dimensional model, illustrating

points of connectivity within my sample of websites, as well as providing a visual

representation of the intangible communicative space that is the Internet.

In the following sections I review and build upon previous scholarly works involving

concepts of community and representation of identity on the Internet to establish an

interpretive framework that functions as the basis of this study. Following my discussion of

theoretical concepts, I describe my methodology for selecting and analyzing websites. I

briefly discuss Native American contemporary cultural issues to provide a context to

understand themes within websites I encountered. After this overview, I perform content and

structural analyses of Native American website cases to explore how concepts of community

and representation of identity recursively work together in the creation of specific and broad

communicative networks. My primary research questions include: How do concepts of

community and identity representation work together to shape groups through the Internet?

Does the Internet offer a fundamentally new way of fostering connectivity between members,

constructing community, and representing identity? A secondary set of questions addresses

how connectivity might be assessed across websites. In this paper I experiment with applying

fuzzy logic to qualitative data collected from websites to measure levels of connectivity between websites as well as visualize a broader relational network structure.

Concepts of Community

Increased and diversified use of technology within our information-based society continues to form an expanding network of physical and virtual connections between users local and global. Doors have opened to communicative environments for users to peruse and interact with at their choosing. Communication between people that earlier may have been arduous or impossible is achievable by a few directed clicks of a mouse. The Internet signifies a movement away from prior unidirectional forms of mass media communication—such as radio and television—towards an interactive communicative environment presenting a context for users to form and become a part of communities. Communication plays a fundamental role in the establishment and continuance of communities, functioning as a medium by which people interact and form connections with each other.

The Internet's emergence as a communicative form that participants use to create, sustain, and become part of communities presents a unique context to explore concepts of community that have been a central concern to such fields as anthropology and folklore. These online communities are "situated in a web of interrelations" (Bauman, 1983, p. 362), represented by specific social and cultural connections and patterns. Building on theories of communication, social organization, and the study of folklore in context, I seek to examine the ways that communities form and exist within the communicative terrain of the Internet, as well as to perform a contextual analysis of the social and cultural factors that give these groups' shape, meaning, and existence.

To understand what a community is, we must first understand what brings a group of people together. In <u>Acting in Concert: Music, Community, and Political Action</u> (1988) Mark Mattern states that, "people live in a community by virtue of the things that they hold in common" (Mattern, p. 9). Mattern refers to these "things held in common" as commonalities. "Communities are defined by a set of common characteristics, and the identity of particular community is defined by the specific character of its commonalities" (Mattern, p. 9). The assertion of group identity and members' ascription to this identity establishes vital connections between members, creating a community's foundation and strengthening its infrastructure. Participants use communication as a primary medium to develop commonalities within the group. An alternate viewpoint contends that the formation and longevity of a community requires local settings in which members can engage in face-to-face interaction. This perspective suggests communities can only form locally where direct engagement is possible, relying on assumptions about the physical act of direct communication, rather than communication's function within the context of community discourse and its meaning to participants.

Communication and interaction between people create and sustain the commonalities of their community. The communication by which this is accomplished exists in various forms. Communication between online community members creates connections around common points of interest. For instance, discussion boards and guest books are popular venues for members to discuss central community issues. For a community to exist, members also must identify themselves as a part of that particular community. "If community does not require local, face-to-face, personal contact, it nevertheless is always connected to particular times and places because people's identity is formed in actual concrete interactions with

specific social and cultural environments at specific historical times" (Mattern, p. 15). The key criterion becomes the existence of concrete interactions within a particular community, while not necessarily requiring physical proximity and engagement.

Communication and points of commonality among members collectively play a key role in creating a sense of belonging among participants within a group. In the following paragraphs of this section, I review Benedict Anderson's concept of "imagined community" to provide a context by which to better understand how groups form and members feel connected, even in cases where they have never met. From this idea, I move to Fredrick Barth's discourse on social theory involving groups' social organization as well as the construction and maintenance of group-defining boundaries. Anderson and Barth's theories form the theoretical foundation from which I analyze how groups form and organize online as well as how these groups continuously reproduce social boundaries.

Benedict Anderson's (1987) book, Imagined Communities, explores how print-languages and technologies form the foundation for national consciousnesses, for a "feeling" of being part of a nation. The widespread distribution of media such as the newspaper creates a standardized flow of communication capable of reaching citizens over wide ranges of geographical terrain. Although readers may have never met, they "become" connected and unified through ideas in print. These shared sense of connections lead to the birth of imagined communities, "distinguished not by their falsity/genuineness, but by the style in which they are imagined" (Anderson, p. 7). Collective ideas emerge within the finite boundaries of these imagined communities leading to, in Anderson's study, the emergence of nationalism and subsequently the nation.

Similar to the print-based languages and technologies Anderson studied, the Internet creates a unified field of pervasive communication, information exchange, and identity construction. Information on websites, such as discourse, images, and links are key elements that aid in establishing connections between members and shaping group identity. Much of the discourse used within a website displays how participants refer to group and individual identity. Images presented within a website aid in shaping the visual perception of a community and its members. The scope of members included within a single online community can vary exceedingly. For instance, descriptors found on websites such as Amerindian, Indigenous, or tribe-based terms (Seminole, Cherokee, etc) discursively refer to Native Americans and to a diverse range of members encompassed within a website's scope. Images present on websites also vary considerably; an image of traditional Cherokee dress is present on one site, where as a map highlighting Amerindian concentrations throughout the Caribbean is found on another. The emergence of hyperlinks on tribal websites may point to other communities that are perceived to exhibit similar characteristics. Portal websites encapsulate a diverse array of tribes and indigenous groups within their scope, using an assortment of embedded links to expand a broader notion of community and extend "indefinitely stretchable nets of kinship and clientship" (Anderson, p. 7). A wide variety of tribal links appear within portal websites, however the broader supratribal qualities of these tribes are stressed over their demarcating distinctions. Although all participants may not directly interact with each other, representation of group identity and the subsequent fostered connectivity create an imagined community. I expand upon Anderson's theories to explain how the Internet is a space that further allows tribal "imagined communities" to demonstrate

their sovereignty, by exhibiting unique cultural traits as well as to extend a broader notion of community.

Although cultural traits play an important role in the members' ascription to group identity and construction of community, Frederick Barth's (1969) introduction in <u>Ethnic Groups and Boundaries</u> proposes that groups are not defined by their cultural traits, but by social organization. Social interaction and recognition among group members is essential to producing the foundations of social systems and creating ethnic distinctions. Group members ascribe to these distinctions, forming a conception of identity by continuously defining and maintaining ethnic boundaries. Members may cross boundaries by changing their practices— by becoming cultivators rather than pastoralists—however, ethnic boundaries and cultural distinctions continue to persist. Cultural objects, practices and material objects, primarily are used to demarcate groups from each other, constructing and reinforcing boundaries. As Susan Leigh Star (1988) points out, objects on the edge can have a radically different function, to blur the boundaries and ease the passage from one side to the other. An ethnic group is not reducible to its members, but its own organizational existence, meaning individual members can connect to and become a part of multiple groups. I examine the use of cultural identity on websites to continuously reproduce group-defining social boundaries and assert ethnic distinction. At the same time, I seek to understand how cultural objects are used on websites to blur boundaries between groups and shape a broader ethnic identity.

Cultural traits, member characteristics, and organizational form are continually signified in new and different ways, while members dynamically remain connected. Identity and culture are not statically bound to a particular space and time, but are "continuously changing dynamically in relation to time, space, and significance of meaning" (Christensen,

2003, p. 13). Social interaction as well as the setting it takes place in, physical or virtual, characterize and signify culture. The use of the Internet as a communicative space to reproduce cultural identity and social boundaries symbolizes the fluid nature of cultural signification and change. The Internet allows groups to extend their defining ethnic boundaries, signifying groups' and their cultural objects as well as the digital space communication occurs within.

The theoretical concepts of imagined communities and social organization are the foundation of my contextual analysis of the social and cultural factors that give online communities shape, meaning, and existence. Cultural objects and representations largely comprise website content, which foster connectivity between group members, assert group identity and reinforce ethnic distinctions and boundaries. The analysis of cultural context reveals systems of meaning and symbolic interrelation, while the examination of social context discloses the processes through which community social structure and interaction form. The cultural and social contexts comprise the content and structural analysis performed in this study.

Representation of Identity on the Internet

Much of the pioneering computer-mediated-communication (CMC) research focuses on the disembodied potentials of the Internet, where social meaning and interaction have migrated from the physical to the virtual (Christensen, 2003). This perspective views the Internet as a space devoid of physical limitations, where users may fluidly change between multiple identities, while constructing and interacting within virtual, at times grandiosely fantastical, settings. The simultaneous formation and erosion of boundaries as well as the construction and negotiation of identity occur within this abstracted context.

Sherry Turkle's (1995) Life on the Screen explores CMC's effect on users' transition from unitary to fragmented constructions of the self, which have come to "characterize postmodern life" (Turkle, p.180). The majority of Turkle's research is conducted in "Multi-User-Dungeons," or MUDs, which are anonymous text-based communicative online environments that allow users to become "authors not only of text but of themselves, constructing new selves through social interaction" (Turkle, p. 12). Turkle argues that the anonymous social platform of MUDs present a context for users to pursue unexplored aspects of the self, straining the limits of a singular identity. In this case the self becomes decentered, existing in multiple worlds, conforming to various roles, and assuming multiple identities at the same time. The users' choice to create and fluidly transition between multiple identities represent the age of postmodern life and the Internet. Internet groups are viewed as fluid and decentered, contrasting modernist suppositions of reality as being linear and logical. A key conjecture in this theoretical disjuncture is that the Internet allows users to contemplate mental life disengaged from the physical body, constituting the self as multifluous and causing previous social boundaries to be renegotiated. Traditional notions

regarding identity are characterized by diacritical authenticity, while in postmodern theory the emergence of the Internet contributes to thinking about identity as multiplicity, where participants are able to construct a self by negotiating through numerous selves.

This research and philosophical discourse represent a Western postmodern view of identity representation and the Internet, focusing on the simultaneous construction and navigation of multiple identities within the parameters of a disconnected virtual environment. The emergence of a multifluous fragmented self denotes a world devoid of social meaning and cultural significance, signifying people's movement to the Internet as a space to reproduce the social meaning of life (Christensen, 2003). These theoretical concepts delineate a distinction between coherent physical actuality and protean virtual reality, asserting a supreme difference among what goes on when participants are online compared to when offline. In contrast, studies on marginal and non-Western ethnic groups' use of the Internet stress a resemblance or connection between online and offline space.

As stated by David Hakken, Miller and Slater's (2000) The Internet: An Ethnographic Approach emphasizes continuity, constituting the Internet as "a new terrain onto which essentially prior identity and other social processes are projected" (Hakken, 2004). Miller and Slater primarily investigate the Internet's role within the diasporic Trinidadian community, exploring how personal relations are maintained, participants find themselves at home, and community image is molded within a transforming communicative environment. In postmodern cyberspace participants are abstracted from local and social relations, however Miller and Slater discover the opposite: "Trinidadians—particularly those living away— invest much energy in trying to make online life as Trinidadian as they can make it, to see the Internet as a place to perform Trini-ness" (Miller and Slater, p. 7). Trinidadians' interaction,

identification, and community formation online is concretely rooted in their preexisting ascription to offline cultural identity. The Internet harbors the ability to bring distanced entities into direct association, however "there is no reason to suppose that these encounters dis-embed people from their particular place… or construct new identities in relation to 'cyberspace' rather than projecting older spatial identities through new media and interaction" (Miller & Slater, p. 85). Essentially, cultural identity remains only as mobile as the minds of participants signifying it. One not can assume ethnic groups use or react to technology in the same way. In this case, however, their interaction within virtual contexts appears to be more about an adjustment to the modern technology, as opposed to a postmodern deconstruction of it.

Many Native American websites are constructed with strong ties to offline sociality, culture, and physicality, signifying key components used to assert group identity on the Internet. Textual information and images reflecting social and physical boundaries, abundant on many of the websites I encountered, are crucial to reproducing Native American identity and culture. These groups appear to be concerned with asserting rather than transforming group and cultural identity. Postmodern cyber theory deeply questions the nature of identity assertion and the emergence of online communities. This study looks closely to determine if the Internet offers a fundamentally new way of forming connections between members, establishing community, and shaping identity or if it remains a continuation or reproduction of previous practices.

Summary

The concept of connectivity is essential to examining the nature and meaning of websites as well as their representation of community and identity. In this context, "connectivity" is the binding affiliation between participants within particular communities, whether specific or broad in scope, as well as the degree of relational bonds between multiple websites. Objects of content embedded on websites, such as text, images, and hyperlinks, as well as their structural arrangement, collectively work together to shape group identity and to establish connections between members as well as other sites on the Internet. These connections evolve as participants find points of commonality and engage in sustained interaction, forming the foundation of the community. Members are dynamically connected by their ascription, signification, and representation of a group identity, defining the nature of the community and strengthening its infrastructure. The synergistic quality of community, identity representation, and connectivity jointly form a dynamic feedback system, equally dependent on each other in their contribution to the construction and proliferation of communities online and assertion of group identity on the Internet.

Methods

I use the case of Native American websites to understand and analyze the processes by which group identity is asserted and groups organize online. I categorize and analyze key structural components within websites, as well as how these key components contribute to the formation of and ascription to group identity. I also analyze community structures, both in terms of their content and the connectivity of linked pathways. I specifically look for similarities and differences in techniques used to reproduce cultural identity and ethnic distinctions in website content and structure.

Drawing upon my previous academic pursuits in Folklore involving ethnography of world cultures, my search narrowed to locating a representation of online groups ascribing to an ethnic identity. After conducting multiple Internet searches, the search string "indigenous online community" led to the website NativeWeb. I found links to hundreds of ethnic groups in North and South America on NativeWeb as well as an expansive Nation index of American Indian tribes. From this index, I observed a vast amount of Native American websites, ranging in scope, tribal specificity, intent, and intended audience. As I continued to research these web pages and Native American cultural history, I observed close similarities and differences in content, structural formation, audience scope, and techniques used to reproduce cultural identity and social boundaries. It appeared that the theoretical concepts of community and identity representation were able to be abundantly applied to illustrate the particular qualities and issues raised within Native American websites.

The American Indian tribal site index on the supratribal website NativeWeb functions as this study's premier orientating tool to the expansive and evolving digital world of Native American websites. Traversing through websites—by borrowing links from NativeWeb and

utilizing subsequent links provided on visited pages—emulates the very processes

participants use to navigate and discover other tribal homepages. As my observations

continued, I paid close attention to the authenticity, intent, and scope of tribal websites,

noting emerging trends in techniques used to establish community and assert group identity.

Ideally in field research, the observer selects a sample for study which is representative of the

population as a whole and which has several clearly established, know parameters. Within

the expanding and evolving confines of cyberspace, this is not yet possible. I used a snowball

sampling method to look at a wide range of Native American websites, after which I selected

a small set for more detailed analysis, which I present in this study. The set represents two of

the main dimensions on which the sites differed: those oriented toward specific Native

American tribal groups, and those targeting broader pan-Indian groups.

Website content plays an integral role in shaping the representation of groups,

community, and identity online. I cataloged and analyzed three main categories of the data

available on Native American websites: discourse, images, and hyperlinks. Discourse or

tribe-based descriptors appearing on a website may display how Native Americans refer to

themselves and group identity within the community. Images presented within a website aid

in shaping the physical perception of a community and its members as well as reproducing

cultural identity. Links residing within websites are gateways to other environments. The

appearance of links within a group's website may extend a broader notion of community and

create a larger communal structure by suggesting the virtues and commonalities present

within a linked site are connected to that of the originating group. While documenting the

websites in my selection, I sought to understand the significance of each particular piece of

content as well as how these quantities collectively work together to construct cohesive representations of Native groups.

The relational arrangement of web pages as well as their content collectively comprises a website's structural composition. Whether implicitly or explicitly, structural decisions shape the way participants perceive and navigate website content. These choices dictate the focus of visual persuasion, emphasizing specific objects of content. A website's broader structural design can have an equally profound impact on member experience by directly affecting participants' movement through and interaction with virtual terrain. Contextual distinction, tribal organizational structure, scope, as well as cultural values and mores are influential factors reflected in structural decisions. In contrast to website content, structural choices reflect less tangible—but equally important—techniques to foster social organization and interaction among members, assert group identity, and extend broader notions of commonality and communal structure. This study evaluates the significance of spatial and visual placement of content residing on individual web pages, the hierarchical relationship of these pages within overarching website composition, as well as the relationship between websites within a broader relational structure.

The Case Of Native American Websites

Background

A brief overview of Native American contemporary cultural issues is necessary to contextualize the varying perspectives behind the array of websites I encountered; however, an in-depth review of Native American cultural history and the evolution of inter-tribal relations is beyond the scope of this study. Contemporary supratribal powwows and movements such as pan-Indianism create opportunities for inter-tribal gathering, establishing a broader notion of community. However it is difficult to measure the explicit effect the Internet has had on the continuity of offline culture, due to each tribe's unique cultural complexities and the relative newness of these interactions. Moreover, it is impossible to assume that members from different tribes relate to or use the Internet similarly. Therefore creating a standard to judge information technology's explicit affect on inter-tribe relations is difficult at this point in time. Internet technology may lead to changes in ethnic cultural characteristics and social meaning, however, at the same time it may help to confirm and sustain these same distinctions.

Cultural identity plays a key role in sustaining ethnic groups by instilling "the individual sense of a common past and of a shared destiny" across members (Champagne, 1999, p. 15). Native American tribes hold key commonalities regarding their status as indigenous peoples as well as the many effects of hegemonic colonialism, such as racism, prejudice, loss of land, culture, and population. This broader definition of "Indian"— exhibiting a common past as well as an array of tribal symbols and cultural mores—construct what is referred to as pan-Indian cultural identity. The emergence of pan-Indianism creates a

broader space for interaction and organization, allowing members to subscribe to, identify with, and shift between their tribal specific and the pan-Indian community.

Indigenous groups such as Native Americans are continually rooted in the process of change and negotiation through time. The challenge for these Native groups is to reclaim and preserve identity, culture, and community as much as possible, while "maintaining cultural expression in contemporary life that will strengthen and extend the creativity of Native wisdom and culture" (Champagne, p. 9). Many Native Americans currently live within urban communities, experiencing life away from the reservation, while maintaining life-long ties to their tribal communities (Champagne, 1999). Inter-tribal powwows continue to make key contributions to preserving and defining Native identity, providing a unified space for group members of differing tribal backgrounds to gather and interact. In powwow events, participants' interactions and common experiences aid to create and sustain "a common ground of memory, experience, identity and commitment out of disparate experiences and identities" (Mattern, p. 130). Native American tribes exhibit an extensive assortment of differences in tradition, custom, geographical location, and interests. Supratribal organizations, such as the American Indian Movement, host powwows characterized by the social organization of numerous Native groups, where community affirming practices including singing, dancing, honoring, and rituals of inclusion are common. At the supratribal level, powwows create a communicative space where members of various tribes can interact and define a broader pan-Indian identity and communal structure.

Asserting and sustaining this supratribal identity fosters social cohesion, reinforcing the notion of "what it means to be tribal Indian and an American Indian" (Mattern, 1999, p. 135). These notions of tribal and pan-Indian identity are not static, but rather continually

shifting and dynamic. The Internet provides a communicative arena for these dynamic interactions to take place, allowing members to fluidly switch between websites catering to tribal specific groups and broader pan-Indian online communities. A clear distinction emerges between this instance online and participants' offline identity negotiation within intertribal powwows. As off-reservation generations continue to emerge, communicative technologies such as the Internet may increasingly be used to unite members of specific tribal communities as well as to shape and extend intertribal pan-Indianism. The Internet harbors the potential to build upon pan-Indian events like powwows, extending beyond limiting factors such as geographical location and tribal displacement.

Over the past centuries, Native American communities have encountered the "incorporation of foreign religious views, political culture, economic culture, and values" (Champagne, p. 8). These impositions have created a complex platform of change, forcing Native groups to adapt to colonial domination by selectively integrating outsider ideas, technologies, religions, politics, and legal concepts, while preserving tribal sovereignty, identity, and community. According to the US Bureau of Indian Affairs there are 562 federally recognized Native American tribes, which are acknowledged as sovereign entities within the United States (Bureau of Indian Affairs, 2006). These tribes are self-governing, typically comprised of executive, legislative, and judicial branches, as well as traditional tribal governing forces.

Native American websites began to emerge in 1994 and among other uses, "Indians have embraced the Internet and the opportunity to tell the world who we are on our own terms in a big way" (Mitten, 2003). Of the 562 federally recognized tribes, 132—roughly 25 per cent—have websites (Anderson, 2003). As Anderson points out in her article "American

Indian Tribal Web Sites: A Review And Comparison," "one difficulty in reviewing tribal

Web sites lies in determining the authenticity of a site" (Anderson, 2003). There are an array

of sites claiming to be Native American, existing solely to exploit American Indian culture

and religion for profit. Domain name suffixes, such as .com, .org, or .net, are not always

reliable indicators of authenticity or purpose. Some websites, such as British Columbia's

First Nation, adopt .org suffixes to indicate their non-profit status. Although these sites may

persuade increased credibility to their content, other authentic groups may use the

commercial (.com) suffix to partially endorse tourism, casinos, or cultural products for sale.

The Hopi Tribe website employs the "native sovereign nation" (.nsn) suffix, which was

created to designate a formal domain name for American Indian tribal governments. This

designation, established by the government in April of 2002, allows Native American tribal

websites to switch from the previous governmental (.gov) suffix, however not all tribes have

yet to make the transition (Dizard, 2002). The availability of multiple domain suffixes and

the various factors behind a group's choice, leave it up to the researcher to gauge

authenticity. Exhibition of tribal government contact information and the absence of

descriptions involving sacred religious rites are marked as two quick indicators of

genuineness (Anderson, 2003). The key criterion for determining authenticity remains that

the site and its pages are "created or sponsored by Indian people or organizations" (Mitten,

2003).

During the early days of the World Wide Web, before the advent of search engines, a

number of Native American websites simply functioned to store and promote links to other

websites. These links typically pointed to other Native sites containing information on

cultural, historical, and contemporary issues, as well as information regarding other Native

groups. Hyperlinks are represented by short strings of textual information, providing insight into the substance revealed when the link is accessed. Positioning hyperlinks within key structural points on a website may suggest similar characteristics are shared across corresponding websites. Congregator websites have since disappeared—being absorbed by larger websites or abandoned due to their immense size—however the use and structuring of hyperlinks to direct participants towards new domains remains an important feature of websites. The complex structure of connective links found within supratribal websites comprises vast amounts of links to specific Native American and Indigenous groups. These websites generally display a wide range of information about cultural, social, and governmental issues affecting Native groups nationally or globally as well as advertise large intertribal gatherings.

The goal of utilizing Native American websites in this case study is to better understand how concepts of community and identity representation influence the development and organization of these groups through the communicative medium of the Internet. I look for common themes and techniques to assert group identity as well as construct and sustain community structures. I seek to understand how offline culture is reproduced online and how it manifests within website content—discourse, images, and hyperlinks—and structure. I aim to explore if the Internet allows Native groups to assert a new dimension of socio-physical boundaries and engage any new practices or if the same boundaries are affirmed within an alternate contextual setting. I pay close attention to how Native American websites are literally built within the Internet, connective bonds between multiple sites, and the choices behind sites' collective tribal specificity or supratribal generality.

Description and Analysis

The content I encountered on many of these websites varies considerably due to numerous factors including the contextual setting, intended audience, purpose, geographic distribution of tribal members, economic factors, and tribal policies. Websites are created and maintained by a range of Indian tribes, organizations, and individuals, which in turn affect the overarching scope and intent. The major topics of Indian websites include—but are not limited to—tribes, organizations, education, media, businesses, music, and languages. I avoided websites appearing to primarily target non-Indian outsiders, which often center on profiting from stereotypic representations of Native American culture and history. On the other hand, an abundant array of authentic websites—varying in scope and specificity—targeting Native American tribal members became apparent as I continued my observations.

"Supratribal" and "tribal specific" emerged as the defining categories of Native American websites. Tribal specific websites focus on one tribe—or a small grouping of closely related tribes—in their content and structure. Locality is accentuated in a variety of dimensions on these sites. For instance, information about local events, photographs of local physicality, and images of tribal members are equally common occurrences. Detailed information about federal recognition and tribal sovereignty are often stressed, usually accompanied by images of land deeds or governmental contracts. These websites are heavily rooted in offline culture and in many cases their intended scope targets inside members engaging in the offline community.

Contrastingly, supratribal websites offer a much broader scope, targeting members hailing from a wide assortment of Native groups spanning large geographical areas. These websites typically offer news resources involving specific tribal communities or regions as

well as more general issues affecting native and indigenous groups. Although images of specific tribal groups and rituals do appear, their placement within the broader supratribal context is emphasized. Members of specific tribes are regularly recognized for contributions benefiting the American Indian community as a whole and offline intertribal events such as powwows are often advertised. The overarching goal across all supratribal websites is to provide information and links to specific tribal group sites, however the manner by which this is achieved may vary considerably. Supratribal websites function as portals, encapsulating tribal specific sites within a broader pan-Indian context.

I selected a small sample set of four cases best representing the particular qualities and issues raised in Native American websites within the scope of this study. The World Wide Web is a rapidly and dynamically changing environment and its contents can not be guaranteed statically to remain the same. Websites observed and analyzed during this study may have changed. The following is a case by case analysis of two supratribal and two tribal specific websites performed during March of 2006.

Supratribal Websites
1) Native Web

NativeWeb is an international non-profit organization whose purpose is to use

information technology not to "preserve the past," but rather foster communication among

and about Native groups (NativeWeb, 2006). NativeWeb emerged in 1994 from an

outgrowth of "Native Net," an e-mail listserv group connecting volunteer academics

interested in Native American issues (Mitten, 2003). NativeWeb has become one of the most

respected Indigenous community websites, providing numerous resources including a

community announcement service, web hosting for over 50 Indigenous organizations in

North and South American, and an informational database with content searchable by nation

or geographic region.

NativeWeb's homepage displays an array of current news articles involving issues

related to governmental happenings, general tribal changes, the state of Indigenous peoples,

and specific individual achievements. This gateway to Native-centered news—both broad

and specific—exemplifies Native Web's primary function, to act as a connective portal to

form bonds between geographically separated groups and to extend a broader, pan-Indian

notion of community and identity. The "People and Places" portion of the homepage expands

upon the News section's function, providing textual and photographic glimpses into specific

Native groups' community rituals and social meetings. The offline culture comprising this

content is rooted in widely ranging geographic locales. For example, one story highlights an

Inuit community's preparations for their Spring whaling season, while a following story

covers the United Nations' movement to cease unlawful seizure of Western Shoshoni Indian

land in Nevada. Placement of such articles and pictures permits participants to navigate

between specific community-affirming cultural events. This in effect allows participants to

recognize connections between their own offline Native cultures and those found on the website, fostering commonalities between members and establishing a community online through the website.

NativeWeb carefully includes images of Native peoples, material culture, and physical landmarks only when placed within a specific tribal context. The remainder of the site—aside from the explicitly hosted sites—is nearly entirely text-based. In a portal site such as this, any cultural images or representations placed outside of a specific context could result in a stereotypic interpretation, marginalizing NativeWeb's extensive communal scope. The selection, placement, and absence of text, images, and hyperlinks are all equally important factors in the construction of website content and structure. These cautious choices allow NativeWeb to create a community linking numerous Native groups and to provide a communicative space for open discourse about ethnic issues both specifically and broadly construed. These techniques work toward shaping a broader pan-Indian identity, while acknowledging tribal specific groups.

The frequently updated "Upcoming Events" text box located on NativeWeb's homepage presents a revolving informational display including the date, title, and location of future events considered to be of interest to NativeWeb members. Typical events featured in this section include governmental protests, indigenous conferences, and intertribal powwows. The choice to place this box within the homepage helps bridge the gap between the online members of NativeWeb's community with concrete offline physical events occurring throughout North and South American. This unique inclusion and advertisement works recursively within the website to promote the pan-Indian scope of NativeWeb as well as the specific events themselves.

The NativeWeb Groups Forum webpage provides an index for members to discuss issues ranging from local tribal specific group requirements, such as the need for more Math teaches on specific reservations, to much broader issues effecting tribal groups nationally and globally. These group forums are post and response based, meaning users retain the ability to post questions and replies within topically categorized sections as well as create entirely new sections for discussion. NativeWeb also offers a PHP-based chat room service, where members can engage in direct real-time interaction. Although the information in these sections is purely textual, the use of discussion forums and chat applications demonstrates a distinctly different type of website content. Members' sustained and evolving use of these web applications signify an alternate framework to assert boundaries, form additional points of commonality, shape group identity, and reinforce community. This portion of the website signifies a dynamic context reliant upon members' active engagement, literally placing the ability to craft new website content and structure within the hands of NativeWeb participants.

The Nations Index page, found in the Resource Center portion of Native Web, provides an expansive alphabetical list of links to indigenous community websites, boasting 5539 total available listings. When a categorical Native group link is clicked, a subsequent page is provided that displays an in depth list of tribal resources for the selected group. These links can then be selected and the user is directed to an exterior website. The categorical placement of these groups alongside each other and the increased specificity of the sub-categories exemplify the diversity encompassed within pan-Indian identity as well as specific tribes. NativeWeb's function as a connective gateway, linking Native groups throughout North and South America, allow members to retain a distinct tribal identity, while creating a context that unites these distinctions under an expanded pan-Indian identity.

2) Indian Circle Web Ring

The Indian Circle website focuses on connecting Internet web pages of federally recognized American Indian Tribes via the use of a "web ring" (Seminole Tribe of Florida, No Date). The Indian Circle website is maintained by the Seminole Tribe of Florida and restricts the content of its web ring solely to federally recognized tribal sites. According to Indian Circle, web rings provide the World Wide Web with a different way to organize websites by grouping sites with similar content and linking them together in a circle. These sites create a cyclical organizational structure, allowing users to jump to adjacent sites by clicking "Previous" or "Next" link buttons, eventually arriving at the original page after all of the sites have been sequentially processed. From the web ring itself or the hyperlink index of tribal sites, Indian Circle asserts that users will be able to reach most American Indian tribes on the Internet, denoting itself as "the first step on the American Indian Internet network" (Seminole Tribe of Florida, No Date).
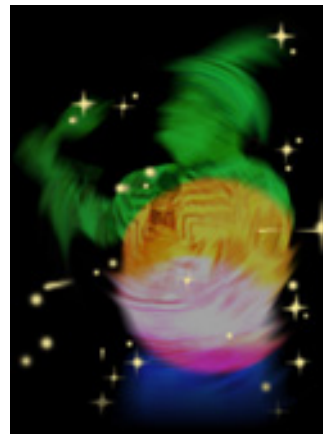
(Seminole Tribe of Florida, No Date)   (Seminole Tribe of Florida, No Date)

The graphical theme pervasive throughout Indian Circle incorporates a starry sky background image with interspersed circular patterns. Although this site is maintained by the Seminole tribe, there is an absence of any photographic images of or relating to the Seminoles or any other tribe. The only image representation found on Indian Circle is a

multicolored "medicine man" appearing to have blurred circular patterns superimposed upon him. The colored swirl-like strokes superimposed over the medicine man image touch upon stylistic notions associated with "Peyote art," however further analysis into this matter is beyond the scope of this study.

Indian Circle's main feature is to provide a web ring service, which cyclically link federally recognized tribal websites together. Each American Indian website holds equal weight within the ring, connecting tribal members throughout the United States based upon their sovereign recognition. Indian Circle's "Participation" webpage highlights the steps and instructions for becoming a member of the ring. The construction of this page exhibits a more complex programming backend than most other sites I encountered. The CGI scripting language is used to create an online submission form that stores detailed information about potential web ring candidates within a database. Once tribal groups have received acceptance notification, they are instructed to download the Indian Circle web ring image and place it on their homepage. Indian Circle then provides accepted sites with dynamic HTML code that embeds specific site identification information within the Indian Circle graphic. By way of a CGI scripting agent, this graphic is transformed into a dynamic link, placing the specific tribal site within the broader web ring structure.

(Seminole Tribe of Florida, No Date)

Indian Circle's creation and use of this sophisticated web application allows the web ring to dynamically evolve as more tribal groups join and the communal network expands. Opposed to congregator sites' static server-side indexing and categorical placement of tribal website links, Indian Circle relies on direct client-side involvement to ensure community

continuance and growth. In a movement away from a standard hyperlink index, the cyclical Indian Circle web ring integrates cultural aesthetics rooted in pan-Indian off-line cultural identity within the virtual context of the Internet. Paula Gunn Allen's (1986) Sacred Hoop is the primary watershed text which deals most centrally with the concept of the hoop or "sacred circle" in native traditions. Particularly, Allen's work uses cross-tribal concepts of the hoop as a metaphor or symbol of individual and community balance. The structural decision to integrate this circular metaphor common across tribal groups plays a central role in establishing commonalities among web ring members by creating a navigational experience markedly symbolic of American Indian culture. Members' recognition of and interaction within this organizational structure aid in creating a unified group identity and sustaining an online community structure rooted in a distinctive cultural aesthetic.

NativeWeb and Indian Circle provide examples of websites aiming to foster broader social cohesion among a wide range of tribal groups. The emergence of these sites provides a contextual setting for members to ascribe to and negotiate between specific tribal and broader pan-Indian identities. As seen within these sites, careful decisions regarding content and structure play key roles in fostering interaction, establishing community, and shaping group identity. Content-based and structural decisions profoundly impact how members recognize and ascribe to group identity and socially organize. These markedly unique approaches to supratribal website construction reflect the different ways ethnic distinction appears, group identity asserted, and broader community structure is formed on the Internet.

Tribal Specific Websites
1) Biloxi-Chitimacha-Choctaw

The Biloxi-Chitimacha-Choctaw website is created and maintained by the Biloxi-Chitimacha-Choctaw Confederation of Muskogees, located in Lafourche and Terrebonne parishes in the southernmost part of the state of Louisiana (Biloxi-Chitimacha-Choctaw, 2006). The Biloxi-Chitimacha Confederation represents an alliance of three separate Indian groups—the Bayou Lafourche, Grand Caillou, and Isle de Jean Charles—that are ancestrally related tribal communities sharing a common history and culture. Drawing from the "tribal communities" portion of the website, some members refer to themselves "simply as Biloxi-Chitimacha, but they are an amalgamation of several tribes which include Biloxi, Chitimacha, Choctaw, Acolapissa, and Atakapa" (Biloxi-Chitimacha-Choctaw, 2006). Each tribal community is autonomously governed by its own tribal council, while acting together in the Confederation to pursue federal recognition on behalf of the three tribal communities. Throughout this website structural design decisions demarcate the individual tribes as well as their collective unification as the Confederation. The purpose of the Biloxi-Chitimacha website is to combine the resources and efforts for the common goals and objectives of each independent Indian community, while continually preserving of the culture, tradition, and honor of each tribal group.

(Biloxi-Chitimacha-Choctaw, 2006)

The website header image at the top of the Biloxi-Chitimacha-Choctaw homepage introduces the names of the three separate tribal groups and their home state of Louisiana.

The statement under the main header affirms these tribal groups as State Recognized—

lending further credibility to the authenticity of this site—and specifically denote the

geographical regions these tribes reside in. This header remains a fixed graphical enclosure

across all of this website's pages, affectively drawing users' attention by incorporating wind-

blown animated flag GIF files. The inclusion of state and federal flags create broader

connections between the Biloxi-Chitimacha-Chitimacha tribal communities and the state of

Louisiana as well as the United States, placing these tribal groups within multiple contexts.

This choice displays that members may identify specifically as part of the tribal

Confederation and more broadly as citizens of Louisiana and the greater United States. The

construction and placement of this graphic as the introductory title and its ubiquitous

presence within this website draws increased importance to its meaning, possibly indicating

members actively assume and negotiate between each of these identities. The appearance of

local, state, and federal contexts allow Biloxi-Chitimacha-Choctaw members to situate

themselves within a social and physical space that is local, in addition to a broader state and

federal wide perspective.

(Biloxi-Chitimacha-Choctaw, 2006)

Under the Biloxi-Chitimacha-Chitimacha homepage title, a rotating timeline image

paired with textual information advertises local tribal communities' need for assistance in the

wake of recent hurricanes. The placement of this content on the index homepage conveys the importance of this issue to tribal members of the Confederation. The statement "our coastal tribal communities were hard hit and need your help," distinctly includes the coastal communities within the Confederation's scope, while negotiating the use of 'your' to target either insider or outsider members. The images within the rotating timeline exhibit real-life scenes of the textually described hurricane scenario. This combination of text and images allow users to create a more profound connection with the offline reality of the Confederations' region. The use of images—particularly representations of local physicality—emerge as a prevalent tool throughout the Biloxi-Chitimacha website to construct and assert distinctions between each local tribal groups, as well as, to establish a unified Confederation identity. The use of text and images to reference and reproduce local physicality became a common and defining feature throughout tribal specific websites I analyzed.

(Biloxi-Chitimacha-Choctaw, 2006)

The three tribal communities represented in the Biloxi-Chitimacha website coexist in a very close geographical proximity, subsisting within a 10-15 mile radius. This geographical

immediacy resulted in a strong interrelation between each of the tribal communities' culture, ancestry, and family ties. The Biloxi-Chitimacha website is full of textual and image-based references to individual tribal members as well as physical localities. The image above is found on the "Tribal Communities" page, which displays information about each tribal group as well as the Confederation as a whole. This image captures a physical landmark familiar to tribal group members. The placement of this image within the "Tribal Communities" page provides a contextual setting to link a common physical space with community members, defining boundary within which group identity is reinforced. Furthermore, the explicit statement on the sign as "Home of Biloxi-Chitimacha-Choctaw" elicits a double meaning, creating an iconic representation heavily rooted in offline culture, while suggesting that this website may function as the Confederation community's online home.

Organizing principles throughout the website are based upon the distinction between the three tribal communities comprising the Confederation. For instance, the "Calendar" page provides links to calendars exhibiting information about upcoming meetings and events for each individual tribal group as well as for state-wide intertribal powwows. This strict structural distinction exemplifies the organizational formation of the physical Confederation offline. Participants operate as members of their specific tribal council, the Confederation, as well as Louisiana powwows. This linear migration from tribal specific to broader pan-Indian identity characterizes the range of identities members may ascribe to, both online and offline, in contemporary Native American life. Similarly, the scope of tribal groups participating in the events featured on the "Louisiana Powwows" page varies. Some of the advertised gatherings are restricted solely to the three Confederation groups, while others are open to tribal communities throughout the state. Photographs honoring Confederation members for

extended years of service at powwow events are pervasive throughout this section. These

images provide a context to link specific Confederation members within inter-tribal

powwows, allowing participants to identify with iconic community affirming events and their

placement within them.

The "Guest Book" web page provides a communicative forum for users browsing the

website to document their visit and post comments. Users first fill out an online Guest Book

form, which requires information such as: Name, E-mail, City, State, Country, and

Comments. Once this information is submitted, the posted comments appear on the "Guest

List" page, which is a revolving list of entries that provide glimpses into the lives of

members using this site. The names have been removed from the following selections taken

from the Guest List page:

> **I'm a jingle dress dancer and native on my father's side. I have pictures of several of those 2001 powwows listed and also the Calling of the Tribes 2002 powwow.**
> Independence, Louisiana - USA - Wednesday, March 27, 2002

> **I am one of the Mugulasha-Choctaws here in Mississippi. As I am almost the last I want to look for those in the old tribes from ancient Mississippi. I want to find the following peoples: Natchez, Houma, Ogoulapissas, Bayougoulas, Mobilas,and Pascaogoulas. Any and all info on the ancient Mississippi tribes will be greatly appreciated by me. I do respect your people. God bless and keep you on the red road.**
> Purvis, Mississippi - USA - Thursday, February 28, 2002

> **I am coming to Franklin to teach a class on basic Indian law. I'm a tribal attorney for the Umatillas in Oregon. Born in New Orleans to a family that hid its Choctaw ancestry. Coming down there to teach Indian law after 17 years away feels a bit like coming full circle.**
> Pendleton, Oregon - USA - Tuesday, March 5, 2002

> (Biloxi-Chitimacha-Choctaw, 2006)

These responses recognize multiple levels of affiliation to this website and tribal specific

group identification, covering themes of local, regional, and national dimensions. The

geographical, social, historical, and cultural reflections in these comments are all components

of asserting social boundaries. Members relate to each other based upon different

commonalties and perceptions of group identity observed in this section. For instance, one

sequence of comments is between local Confederation members discussing a recent powwow event, while another section displays two members displaced from their Choctaw tribe recalling past ceremonial events in an attempt to remember reservation life. "Identification relates to specifications in topics such as kinship, heritage, friends, location of birth and location of residence" (Christensen, p. 90). In this instance, ethnic identity is the main component—being a tribal specific member or more broadly an American Indian—in establishing connective bonds between members and sustaining the community online.

Tribal specific websites contain spatial references to the physical off-line locations of tribal members through images, symbols, references in text, and in this case text produced by users browsing websites. Identity and physicality seem to play integral roles in asserting social boundaries, creating a sense of belonging, and establishing commonalities. The absence of face-to-face interaction in a Guest Book, as in other forms of computer-mediated-communication, does not prevent members from engaging in sustaining interaction and asserting group identity. When members of the Biloxi-Chitimacha-Choctaw Confederation post an entry on the Guest List, commonalities are established between group members and group identity is reinforced by references to specific people, physical locations, and community affirming events. The Guest List is a dynamic interactive forum allowing members to establish an affirming social relation in an online space, by creating a posting, that is acknowledged whether or not the user is a part of the Confederation's offline space. This differentiation from the rest of the Biloxi website marks a key movement from reproduction of a symbolic community to a communicative area linking inside members familiar with offline culture and those with broader connections.

(Biloxi-Chitimacha-Choctaw, 2006)

The "Historical Research" page includes information about tribal ancestry and local history. The statement "Our Historical Existence is all around us…" is displayed as the header of the above image of Chief Randy Verdun standing in a field marked as the original site of the Band of Biloxi-Chitimacha-Choctaws. This picture and statement directly connect the local space inhabited by tribal groups as a symbolic characterization of their existence, affirming the dynamic nature of local physical space as a platform for asserting group and cultural identity. The "Ancestors" portion of the Historical Research section lists the names of the earliest known members in the Lafourche and Terrebonne regions, which are categorically arranged by their tribal identities. The "History" page offers a detailed account of land sale documents that provide proof of tribal identity for the Biloxi, Chitimacha, and Choctaw nations. Images of the original documents are supplied along with photographs of the original settling grounds, which both proved to be common techniques across tribal specific sites to validate their authenticity and assert a claim for federal recognition.

Tribal specific group websites are heavily rooted in offline culture. Key physical spaces group members frequent are important underlying factors in the social organization and cultural identities of these local communities. In her study of Greenlandic local

communities, Susan Dybbroe (1991) declares "local identity is a symbolic construction, where peripherality in the objective world informs the sense of belonging and identity. Peripherality is not just a political reality, but becomes a state of mind" (Dybbroe, p. 5). Biloxi-Chitimacha's "Links" page connects to Cajuns.com—a website about local Louisiana history and culture—as well as the aforementioned portal site NativeWeb. By linking to broader supratribal sites such as NativeWeb and to local pages such as Cajuns.com, instances of periphery and center are simultaneously constructed. Native tribal group websites stressing locality, community, and cultural identity utilize the position of peripherality as a mode to foster greater connective bonds between members and create an increased sense of belonging (Christensen, 2003). In this instance, the use of physicality and local culture reduce the feeling of physical distance for inside members, while the reference to specific socio-physical boundaries assert a distance to the rest of the world. This dichotomy reinforces a sense of belonging for participants by creating a culturally localized niche within the expansive space of the Internet.

2) Makah

(Makah Nation, No Date)

Makah.com is the official website of the Makah tribe, who are natively located in the town of Neah Bay on the Olympic Peninsula in Washington State. The Makah are considered a sovereign nation residing in their native geographical homeland. Makah tribal members engage in life on and off the reservation as well as "throughout the world practicing an intertwined contemporary and native culture" (Makah Nation, No Date). The Makah's close

physical proximity to the Pacific Ocean displays a lasting influence on their culture and society. Whaling, sealing, and fishing remain important tribal community activities, in regards to cultural identity and history as well as financial income. The above graphic is the header image found on every webpage of the Makah website. The symbolic image of Pacific Northwestern American Indian artwork merged with a photograph of a Makah whaling boat represent common references to Makah local and cultural identity and subsequently are pervasive throughout the website. The superimposition of the tribal specific name on top of this montage draws a distinct connection between these symbolic and iconic images as tools to represent the Makah community within the context of this website.
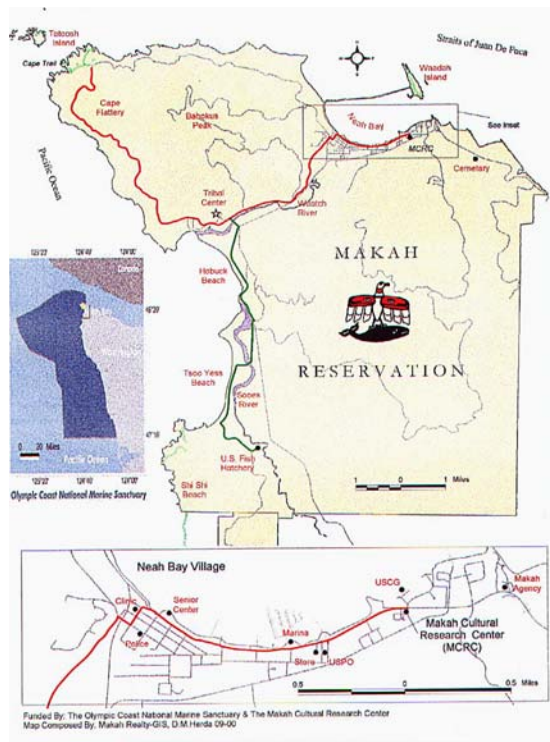

(Makah Nation, No Date)

The above graphic is displayed on the Makah.com index homepage. The central image is of the physical sign that welcomes citizens to the Makah's home town. The structural choice to place this welcome sign within the context of the Makah homepage immediately links a familiar geographical border picture associated with offline culture within the tribal group's virtual home, while the background artwork touches upon themes common to Pacific Northwestern tribal art. The image below is a map of the Makah reservation land appearing on the "Maps" webpage (www.makah.com/neahbaymap.htm).

Compared to the image above, the Makah reservation map is a distinctly different, but

equally important method to assert socio-physical boundaries and reference locality. The

Eagle-Whale illustration appears in conjunction with both of these references to physicality,

symbolically linking products of Makah cultural identity to the physical land where they

originally manifested. This cultural emblem appears on other references to physicality as

well as on the Makah website itself, signifying a symbolic claim of tribal ownership and

representation in both physical and virtual dimensions. The appearance of iconic physical

boundary representations as well as cultural symbols, both ordinary to Makah local reality,

reflect common techniques used on tribal specific websites to reproduce offline identity and

culture as well as to assert a presence online.

(Makah Nation, No Date)   (Makah Nation, No Date)

The Makah website offers a set of different ways to negotiate meanings of

identification on the Internet, in specific regards to social boundaries such as local and

cultural identities. The boundaries of social meaning are able to let almost any matter of perceived difference between in-group and out-group symbolize their boundaries (Cohen, 1986). Similarly, the Makah tribal website includes a vast range of information on local history and culture, whaling events, natural attractions, tribal businesses, maps, museums, accommodations, and local Makah tribal events. These web pages identify several dimensions of belonging including physical space, geographical region, tribal community, cultural identity, shared history among members, language, and images of community gatherings. The content found on this website, as well as virtually every other tribal specific site I encountered, seem to question the postmodern notion of the Internet as a boundless space where cultural identity and geographical space are meaningless or do not exist.

(Makah Nation, No Date)

The Makah website content appears to be broken down into two distinct halves, outside visitor and inside member. The discourse on outsider-based pages describes components of Makah cultural identity and history, typically accompanied by a photograph of local space. Although this remains a common technique for insider pages as well, the information on these sections represent knowledge Makah inside members are undoubtedly already privy to. For instance, the "Camping" and "Beaches" sections display information

and photographs of local areas that are popular destinations for tourists. The image above is found on the "Cape Flattery" web page, which describes the cape as a destination for "eco-tourists" offering "breath taking views" (Makah Nation, No Date). Images and descriptors on these pages reproduce Makah offline physicality, however this outside-visitor-targeted context emphasizes the "exotic" and "spiritual" qualities of the landscapes, in contrast to local familiarity. Understanding the intended audience, the use of specific discourse and images, and the constructed contextual setting each proved to be important factors in determining the intent and scope of web pages I encountered throughout my research.

(Makah Nation, No Date)

The picture above appears on the "Culture" page, drawing upon the Makah's tradition as a whaling community to describe the tribe's cultural history. The choice to use a modern photo of Makah whaling canoes to illustrate historical practices creates a link between past communal activities and those of continued today. This image could equally appear within the insider portion of the Makah website, however its placement within the context of the Culture section demonstrates the use of representations closely tied to offline cultural identity as a tool to construct and sell cultural experience to outside visitors. The "Attractions" page contains a wide variety of informational links for tourists including: nature trails, camping locations, bingo, beaches, museums, and fishing opportunities. The textual discourse on this

page defines outsiders as its target audience by instructing visitors to: "Click the links to the

left and explore all that Neah Bay has to offer you and your family" (Makah Nation, No

Date). Inside members are undoubtedly already aware of information on these pages, which

clearly target outside visitors.

(Makah Nation, No Date)

The "Makah Days" page displays up to date information about past and upcoming

local community events, signifying a change in scope towards inside members. This section

moves away from images of historical practices and towards representations of community

members taking part in local organizations and events. The above image is the primary

photograph featured on the Makah Days community page. This image displays tribal

members of various ages interacting within a Makah day event. In offline culture, group

events promote social organization and interaction among members, playing key roles in

sustaining the community, defining ethnic distinctions, and asserting group identity. The

placement of this image within the main insider group page effectively works toward this

same goal. Makah.com is comprehensive in its attempt to construct meaning and assert local

and cultural identity, which collectively create social boundaries. The link to Makah Days,

under the Makah.com header image, is placed in the right corner of the navigation bar, the farthest position away from the outsider-centered culture and attractions links. This structural decision reinforces the division between the distinctly different portions of this website. The Makah Days page uses a photographic representation of a local community-affirming event and structural placement of hyperlinks to unmistakably demarcate the boundary between outside visitors and inside members. Makah.com utilizes native cultural history and local physicality to shape and sell an exoticised cultural experience to outside members, while simultaneously constructing a symbolic community online targeting local tribal members.

The Makah website demonstrates different ways in which social boundaries are asserted on web pages. In this instance, contrasting levels of identification coexist, reproducing a tribal group identity tied to particular situational events, while outside visitors navigate within an exoticized representation of Makah culture and physicality. This dualistic relationship exemplifies the dynamics of boundary assertion, emphasizing the 'inside member/outside visitor' perspective by symbolically asserting difference through reproductions of local community-affirming events in contrast to representations of physicality evoking mystical overtones. The Internet presents a constructed space in which social boundaries are asserted and applied to a wide range of perspectives within specific web pages as well as across numerous websites.

Web pages are rarely—if ever—permanent, but rather dynamic entities displaying change in content and structure over time. The dynamics of text, images, and links reflect the "general dynamics of identity and place as platforms of social meaning" (Christensen, p. 77). The Biloxi-Chitimacha-Choctaw and Makah examples are specific community and identity affirming websites representing socializing offline tribal communities and symbolic online

communities. These websites' common reference to socio-physical boundaries is an important relational dimension to the processes of identity assertion. It appears that in these websites, identity and physicality together play an integral role in asserting social boundaries, creating a sense of belonging, establishing commonalities and reproducing ethnic distinctions.

Fuzzy Logic Analysis

I treat textual data appearing on websites, such as discourse or descriptors, as qualitative, meaning it is information that is difficult to measure, count, or express in numerical terms. Descriptors provide key insight into the scope of members included within a tribal group website as well as the level of specificity members use to refer to themselves within the group. Fuzzy logic is a logical system dealing with the concept of partial truth with values ranging between completely true and completely false. This study uses fuzzy logic to associate specific numerical values with particular websites to illustrate levels of relational connectivity. The following description details the processes developed in the course of this study to measure levels of relational connectivity between websites, determine degrees of "fuzziness," and construct network representations.

This analytical portion of the study remains experimental, relying upon subjective assumptions regarding the role of referential tribe-based descriptors within observed websites. Values are derived from a scale based upon referential specificity, ranging from 0.0 to 1.0. For instance, discourse and descriptors within the Amonsoquath Tribe of Cherokee website (Amonsoquath Tribe, No Date), which indicate its members identify as part of a specific tribe within the greater Cherokee nation context, received a value of 0.9. Conversely, the NativeWeb (NativeWeb, 2006) website, which often uses the indistinct "Indigenous" descriptor to refer to its members, was assigned a value of 0.2 due to its wide scope and ambiguity. The Caribbean Amerindian Certrelink website (CAC, 2006) denotes a slightly more specific "Amerindian" descriptor and geographic locale, receiving a value of 0.4. The following table represents the process used to determine the relational connectivity between these three Native group websites.

$$\frac{\sum \{A, B, C\}}{|\{A, B, C\}|} = \text{Relation Connectivity Number}$$
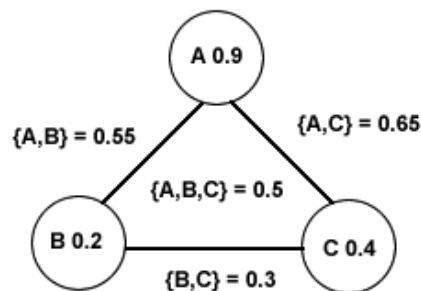
Set of Websites = {A, B, C}
A = Amonsoquath Tribe of Cherokee = 0.9
B = Indiginous = 0.2
C = Caribbean AmerIndian = 0.4

$$\frac{\sum \{0.9, 0.2, 0.4\} = 1.5}{|\{0.9, 0.2, 0.4\}| = 3} = 0.5 \text{ , not strong relation}$$

Referential Specificity

1.0 Specific Tribe & Geographic Region
0.9 Specific Tribe/Nation
0.8 Specifc Region
0.7 Geneal Tribe
0.6 General Region
0.5 Native American
0.4 AmerIndian
0.3 Aboriginal
0.2 Indiginous
0.1 Little Appearance of terms
0.0 No Reference

A 0.9

{A,B} = 0.55   {A,C} = 0.65

{A,B,C} = 0.5

B 0.2   C 0.4

{B,C} = 0.3

The relational connectivity number, or RCN, represents the degree of connectivity between nodes in a given dataset, based upon the level of specific ethnic distinction within each tribal site. A high RCN indicates that nodes exhibit a high level of tribal specificity, while a low RCN indicates broader pan-Indian qualities exist between elements in the dataset. The RCN is determined by dividing the sum of values of the dataset by the dataset's cardinality (total number of element within the set). As shown above, the RCN for the data set of {A,B,C} is 0.5. The RCN value of 0.5 indicates that there is not a strong relation existing between this dataset, reflecting the broader, pan-Indian scope of the NativeWeb and Centrelink sites compared to the tribal specific Amonsoquath website. Once the initial RCN is found for a dataset, additional RCNs may be found for the subsets in order to display the relational bonds across edges within the dataset. The RCN may be determined for multiple datasets in order to display the level of connective bonds existing between much larger

groups of data as long as the numerical values within the scale of referential specificity

remains the same for all of the datasets.

Website	RS Value
Aboriginal Connections	0.3
Amonsoquath Cherokee	0.9
BC First Nations	0.6
Biloxi-Choctaw	0.9
Caribbean Amerindian	0.4
Cherokee NC	1
Crazy Crow	0.5
Hopi Tribe	0.7
Indian Circle Web Ring	0.5
Kan10	0.3
Makah	1
NativeWeb	0.2
Red Nation	0.5
Seminole Tribe of Florida	1
Tanio-Tribe	0.8

Measuring the degree of "fuzziness" within a dataset is a powerful tool to analyze

relationships existing between every node, represent points of comparison, and visualize the

relational network. Based upon the concept of referential specificity, I determined the

quantitative values for each of the fifteen websites originally cataloged and documented,

which are displayed in the chart above. Substituting these values within the m_1 and m_2

variables, I applied the following equation to every relationship existing within the dataset.

$$1 - | \mu (m_1) - \mu (m_2) |$$

In contrast to the RCN formula, which measures the relational connectivity within the entire

dataset, this equation measures the degree of relational difference between two websites.

Websites exhibiting similar RS values return an equally similar value and are grouped

together. For example, the Biloxi-Choctaw (0.9) and Tanio-Tribe (0.8) return a value of 0.9

indicating tribal specific websites. Likewise, groups such as NativeWeb (0.2) and Aboriginal

Connections (0.3) also return a value of 0.9, indicating a strong degree of similarity in

regards to exhibition of ambiguous supratribal descriptors. A diagonal matrix representing

the degree of relation between every website then forms when the fuzziness measurement

formula is applied to the entire dataset (see Appendix). The diagonal matrix is introduced

into Pajek, an open source network visualization application, where graphical representations

of the websites' relational structure are rendered. The following two representations offer

markedly different perspectives on the relational network.

> 0.9 Threshold
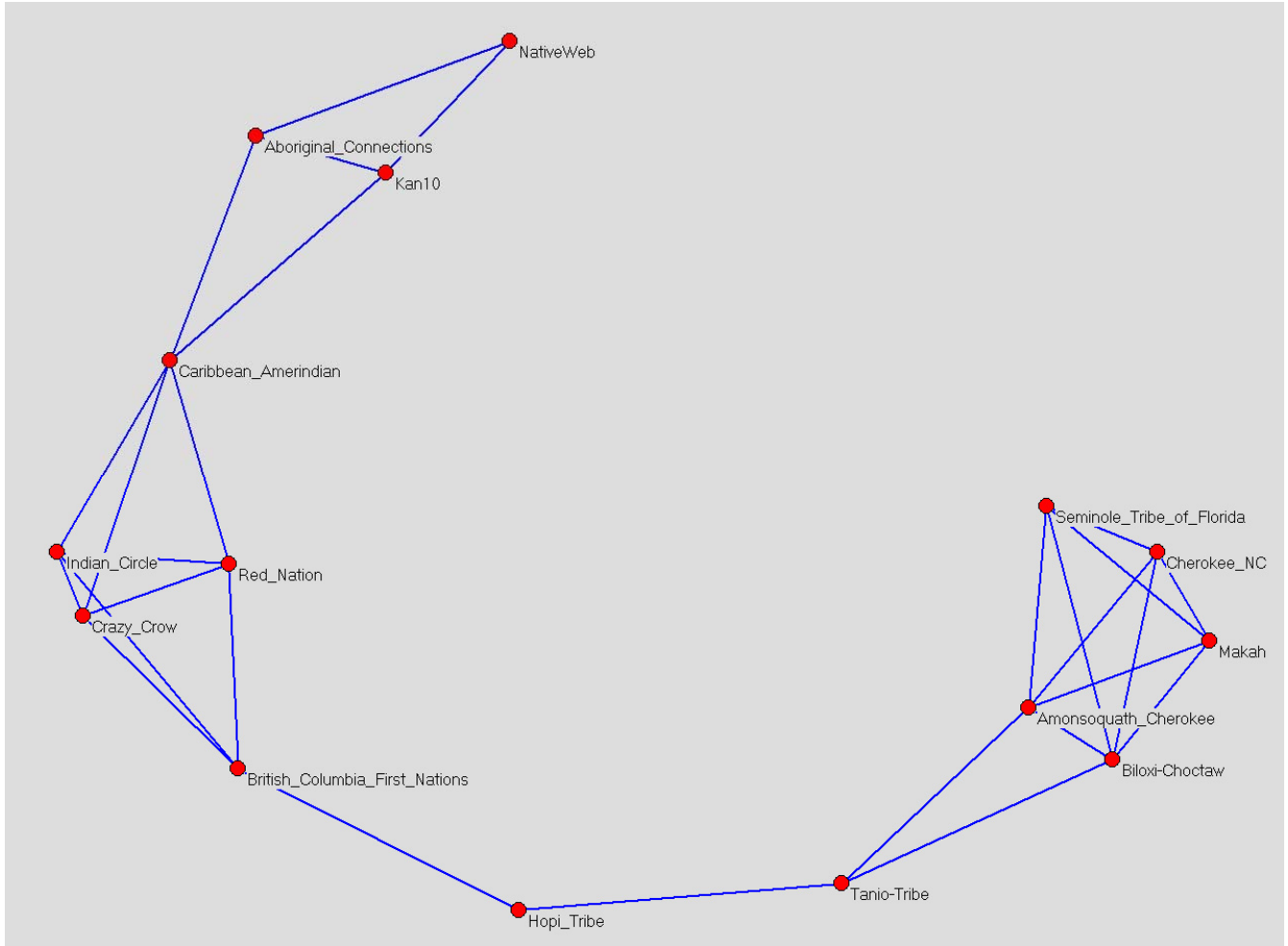
In this instance the website network is rendered with a threshold of greater than 0.9, clearly illustrating the strongest relational connections—i.e. least degree of fuzziness— between nodes by severely limiting the number of edges. Beginning with NativeWeb, the inverted arc's nodes increase in referential specificity as it descends, concluding with a pentagram-esque sub-network representing websites with the highest RS values. The arc's declension represents a symbolic migration from broader pan-Indian to tribal specific identity. This construction symbolically illustrates the diversity of scope, referential descriptors, and ethnic distinction exhibited by websites encountered in this study.

No Thresholds placed on Network
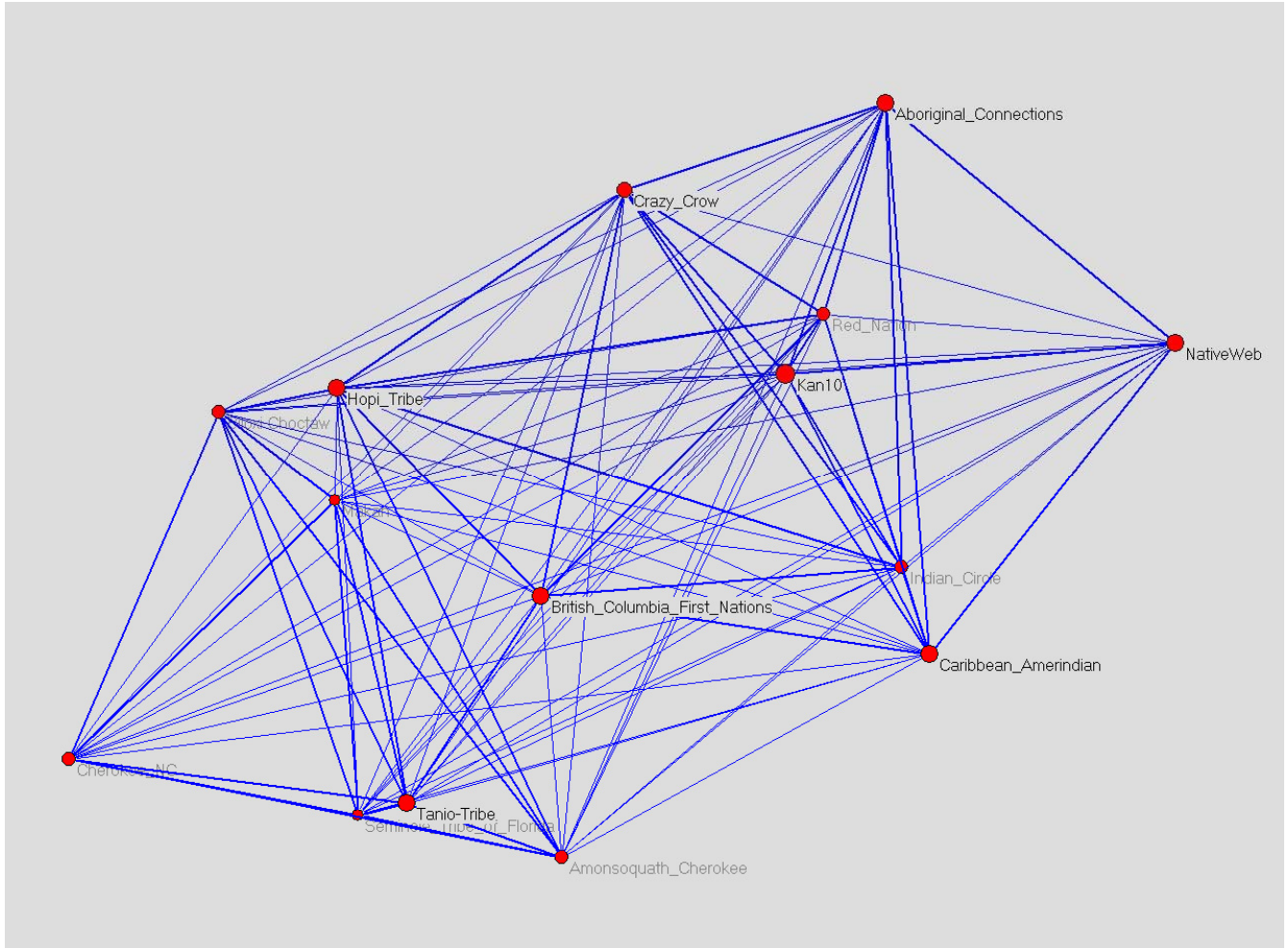
   This representation displays every possible relational connection between websites in

the dataset. The immense amount of edges within this matrix of connective links mirrors the

exponentially complex relational structure of websites on the Internet. I began this portion of

my project aiming to represent purely qualitative data in a quantifiable format, in hopes of

revealing meaningful patterns that previously would have remained undetected. Although the

visualizations accurately and abstractly illustrate this study's data, I was unable to arrive at a

definitive method to truly produce new knowledge. Still, the process itself proved invaluable

to my study, providing an alternate paradigm to consider how these groups are related

rhetorically and structurally. The visualizations are physical representations of the intangible

communicative space that is the Internet. This functionality alone provides insight into the formation of a broader community structure within a virtual context. Similarly, the varying degrees of relation between nodes in these representations present a framework to view pan-Indianism's emergence online. Although all tribal websites are not directly related, they remain connected in some sense, providing a context for participants to identify with and ascribe to representations on multiple domains. This area of the study remains experimental, however the cognitive processes it required profoundly impacted the project as a whole, providing a meaningful contextual lens to view collected data and key concepts central to this study.

Conclusion

As the use and reliance on information technology continues to increase within our information-based world, concerns of globalization and the Internet become pertinent issues of study. The use of the Internet as a space where both supratribal and tribal specific communities are constructed, group and cultural identity is asserted, and connectivity is fostered—specifically between participants and more broadly between multiple websites—represents Native Americans' dynamic and continuous adjustment to life in an increasingly globalized world. The distinction between supratribal and tribal specific websites demonstrate ways in which native groups utilize to global communication technology differently. Supratribal groups move towards embracing the heterogenic pan-Indian unifying potentials of the Internet, while tribal specific groups react in an overtly localized manner, carving a distinct niche online by continuously reproducing dimensions of offline culture.

As shown in this study, local physicality is a prominent element on tribal specific pages, allowing groups to distinctly represent themselves in a communicative arena open to observation and interaction. These pages provide a new context to reaffirm the traditional anthropological notion that "place" plays an immense role in the formation of identity for many cultural groups. References to offline cultural identity and physical space proved to be frequent components to constructing community as well as asserting group identity and social boundaries in groups observed in this study, suggesting disembodied multiplicity is not a primary characteristic in the use of cyberspace. These groups serve as concrete examples that use of the Internet does not immediately presume users assume new identities and cultural identity is inexplicably filtered away. Tribal specific groups deterritorialize themselves by asserting representations through a medium of global dimensions and

simultaneously reterritorialise themselves in this new environment by reproducing socio-physical boundaries consistent with local offline space. The construction of tribal specific websites provide a platform in which identity is directly tied to location, recursively acting together within a dynamic relationship and continuously changing with local elements such as social, physical, economic, and political factors.

In contrast, the inter-tribal powwow functions as a unifying public arena where participants construct a broader pan-Indian identity and community based upon a common web of cultural identity, history, and experience. The emergence of the American Indian Movement and inter-tribal powwows allow members to negotiate between a tribal specific and pan-Indian identity, demonstrating instances of multiplicity originating offline. Supratribal websites appear to be supremely rooted in these same processes, proliferating a broader Native American identity by linking specific tribal groups based upon their similarities, opposed to distinctive differences. Although supratribal websites work towards forging a broader Native identity, creating the opportunity for multifluous navigation, this function paradoxically represents continuity by projecting prior social processes and concepts of pan-Indian identity online.

As reviewed in this study's introduction, Barth's (1969) seminal work <u>Ethnic Groups and Boundaries</u> places emphasis on a group's social organization rather than its cultural identity or history. Participants continuously signify their culture in new and diverse ways without losing their collective group identity or personal ascription to it.
Social, physical, and symbolic boundaries are crossed and groups as well as their participants are not solely characterized by their cultural traits, such as material culture, rituals, and traditions, but rather their organization. It remains that cultural traits do not define social

organization as much as social organization defines what is understood by culture (Christensen, 2003). Thus, the appearance of information technology in Native American life is not significant, but rather the way in which technology is used in regard to social organization. Although the emergence of tribal specific and supratribal online groups may play a role in members' organization in both broad and specific scopes, they are largely symbolic representations of longstanding offline groups or movements. Social and physical boundaries forming ethnic distinction, group identity, and community online appear to be continuous reproductions of offline culture and social processes within a new context, opposed to entirely new constructions. The Internet does provide an expansive arena for communication, surpassing constraints of geographical distance and tribal displacement, allowing participants to form connections, commonalities, and ultimately communities. At the same time, these communicative processes are characterized by continuity, suggesting they are not fundamentally new or transformative, but rather reproductions offline social processes and cultural identity.

It is not only the content, however, that plays a role in shaping the community and its representation. The structure of websites also plays a key role in signifying cultural values and objects, asserting ethnic distinctions, as well as reproducing social organization. Formation of identity and community is a relational process. As seen in the network visualizations, the broader relational structure among multiple websites provides a meaningful context to view the emergence cultural identity and social organization on the Internet. Structural decisions play an essential part in cohesively establishing significant relationships among objects of content, reproducing cultural identity, creating key points of commonality, and shaping participants' perception of the website. Similar to how social

organization signifies the cultural objects it encapsulates, structural decisions provide a contextual platform to assemble meaning among objects of content.

The supratribal and tribal specific websites analyzed in this study vary in scope, intended audience, and substance; nonetheless the concepts of community, representation of identity, and connectivity collectively play a fundamental role in the construction and continuation of these groups online. Each of these groups maintains a distinct website composed of carefully structured text, images, and hyperlinks, which reflect the nature and meaning of the group. From this assemblage, participants identify points of commonality and make connections between each other, producing group identity, providing the foundation of the community, and signifying culture. Each website uniquely uses content and structure to dynamically reproduce group-defining social boundaries. I acknowledge the significance of social organization to shape identity, however it is important, particularly within the context of the Internet, to recognize the social use of cultural traits to assert distinction. Social boundaries are directly related to the manner in which participants use different symbols, text, images, hyperlinks, to actively construct distinction, connections, community, and represent identity. At the same time, these symbols and cultural traits are insignificant without social relations to signify their meaning. Community, identity representation, and connectivity dynamically work together within websites explored in this study to foster social interaction and relation, which fundamentally characterizes the recursive relationship between social organization and cultural content.

This study is an account of selected websites created by complex and dynamically changing cultural groups within the evolving parameters of the Internet. This selection does not represent a finite representation of Native American websites or Native American use of

the Internet. This study does offer insight into how social processes and cultural symbols are reproduced, communities are constructed, and identity is represented on the Internet. In this case, the Internet may not offer a fundamentally new or transforming communicative environment, however that is not to say it has not had a revolutionary impact on groups in both local and global dimensions. As we move toward the future, the Internet will undoubtedly endure as a main component of contemporary globalization, providing a space for distinct ethnic group reproductions as well as the continued structuring of broader global social networks of indigenous peoples.

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Appendix

Diagonal Matrix

	Aboriginal Connections	Amonsoquath Cherokee	British Columbia First Nations	Biloxi-Choctaw	Caribbean Amerindian	Cherokee NC	Crazy Crow	Hopi Tribe	Indian Circle	Kan10	Makah	NativeWeb	Red Nation	Seminole Tribe of Florida	Tanio-Tribe
Aboriginal Connections	1	0.4	0.7	0.4	0.9	0.3	0.8	0.6	0.8	1	0.3	0.9	0.8	0.3	0.5
Amonsoquath Cherokee	0.4	1	0.7	1	0.5	0.9	0.6	0.8	0.6	0.4	0.9	0.3	0.6	0.9	0.9
British Columbia First Nations	0.7	0.7	1	0.7	0.8	0.6	0.9	0.9	0.9	0.7	0.6	0.6	0.9	0.6	0.8
Biloxi-Choctaw	0.4	1	0.7	1	0.5	0.9	0.6	0.8	0.6	0.4	0.9	0.3	0.6	0.9	0.9
Caribbean Amerindian	0.9	0.5	0.8	0.5	1	0.4	0.9	0.7	0.9	0.9	0.4	0.8	0.9	0.4	0.6
Cherokee NC	0.3	0.9	0.6	0.9	0.4	1	0.5	0.7	0.5	0.3	1	0.2	0.5	1	0.8
Crazy Crow	0.8	0.6	0.9	0.6	0.9	0.5	1	0.8	1	0.8	0.5	0.7	1	0.5	0.7
Hopi Tribe	0.6	0.8	0.9	0.8	0.7	0.7	0.8	1	1	0.6	0.7	0.5	0.8	0.7	0.9
Indian Circle Web Ring	0.8	0.6	0.9	0.6	0.9	0.5	1	0.8	1	0.8	0.5	0.7	1	0.5	0.7
Kan10	1	0.4	0.7	0.4	0.9	0.3	0.8	0.6	0.8	1	0.3	0.9	0.8	0.3	0.5
Makah	0.3	0.9	0.6	0.9	0.4	1	0.5	0.7	0.5	0.3	1	0.2	0.5	1	0.8
NativeWeb	0.9	0.3	0.6	0.3	0.8	0.2	0.7	0.5	0.7	0.9	0.2	1	0.7	0.2	0.4
Red Nation	0.8	0.6	0.9	0.6	0.9	0.5	1	0.8	1	0.8	0.5	0.7	1	0.5	0.7
Seminole Tribe of Florida	0.3	0.9	0.6	0.9	0.4	1	0.5	0.7	0.5	0.3	1	0.2	0.5	1	0.8
Tanio-Tribe	0.5	0.9	0.8	0.9	0.6	0.8	0.7	0.9	0.7	0.5	0.8	0.4	0.7	0.8	1