Where the Forest meets the Highway[1]

Mike Patterson

Introduction

How something as elemental as music and cerebral as computers can be combined was part of the focus of my MA thesis on Native music in Canada (the coming together of "two worlds" for Native people, and the weaving together of two worldviews on many levels [Patterson, 1996]). Now I am extending that and making it more personal: how to reconcile what we see and feel in these Canadian spaces (Our Home, and Native Land) with Information Technology (IT).

In June, 1998 a show arrived at Ottawa's SAW Gallery, created by Iroquois artists exploring and using IT. The show visited those areas "At the Edge of the Woods: Along the Highway" and also "the notion of four states of awareness in Iroquoian culture, representing the progression from the edge of the woods, to the clearing around a village, the village itself and the inside of a longhouse" (Marple, 1998: 14). Two exhibits struck me: One, an installation consisting of lodgepoles forming a tipi, with a computer where the fire would be, displaying a video of a fire; and the other an interactive Web project that allowed people to remotely and virtually contribute beads toward the making of an Electronic Wampum Belt (www.albany.net/~printup). Both suggested cultural interaction alive on many levels, reaching into the past and future, trying to find ways of reconciling the meeting of two distinct worldviews that, in Iroquoian culture at least, were supposed to stay apart (the Two-Row Wampum belt, presented by the Iroquois to the English over three hundred years ago, shows two canoes going parallel, on the river, together but not to meet).

I wanted to explore these convergences in the field myself. I traveled across Canada two summers ago, from Ottawa through the southern Prairies to Medicine Hat, then back through the northern Yellowhead Highway through Lake Manitoba and Lake Winnipeg. Across the top of

Superior twice, in an 82 Corolla wagon with a canoe, tent, dog, laptop and cellphone. I wanted to be where the forest meets the highway. I was traveling and living in the bush, campgrounds, provincial parks, reserves and near towns, under the stars for over four months. Being a webmaster at the time, posting stories daily to a high tech trade paper (*Silicon Valley NORTH*; www.silvan.com), I also had to be up on the Net at least once a day.

Some of my notes from these travels are presented below (*in italics*) with the other components of this essay; I take my model from Latour's *ARAMIS, or the Love of Technology*, my token companion across Canada as I tried to go to the place where two worlds meet:

> And I'd actually like to do a book in which there's no meta-language, no master discourse, where you wouldn't know which is strongest, the sociological theory or the documents or the interviews or the literature or the fiction, where all these genres or regimes would be at the same level, each one interpreting the others without anybody being able to say which is judging what (Latour, 1996: 298).

This paper will look primarily at two things: Theory and discourse on the global implications of Information Technology, and ethnographic and other local data related to peoples' use of computers, the Internet and so on, particularly as related to Native (and First Nations) people in Canada.[2] It is located in major theoretical traditions at two levels: The macro, which is largely supported by thoughts and philosophies of French writers such as Baudrillard, Bordieu, Foucault, Latour, Serres *et. al.* and the work of futurists such as Giddens, McLuhan, Beck, David Elkins and William Gibson; and a micro approach involving diverse qualitative methods including ethnography, autoethnography, participant observation and other techniques (Adler, Albas and Albas, Castaneda, Denzin, Glaser and Strauss, Grills, Kirby and McKenna). My journal notes and narrative are *in italics*.

Cybertribalism and the powers that be

Graburn's theory of assimilation and accommodation (1989, one of many theories on Native survival still under debate) shows that Native people are most likely to survive culturally by finding "traditional" ways of using new technology and countering larger social forces; it could be that with IT and Native people, electronic assimilation coexists with ethnic separation and distinct worldviews. This is a subject of this exploration, the two-edged sword.

Today in Canada an era of limited political autonomy has occurred and there is strong movement toward self-determination, healing and expression of Native perspectives. The colonial assimilation and extermination policies carried out against Natives of North America for the last 500 years have not worked. To the contrary, Natives in Canada and elsewhere are surviving and thriving,[3] and a strong movement toward self-determination has begun (Fleras and Elliott, 1992; Frideres, 1998; Mercredi, 1993).

This is also part of the trend toward distinct and free cybercommunities on the Internet. First Nations and other users of the Net have at least two out of three of Foucault's "three great variables," there being "territory, communication and speed" (1984: 244). It was the technology of the horse that enabled the Plains Indians to become the finest survivors, and light cavalry, of their day and place. Vattimo sees that the present possible "end of colonialism, freeing ethnic voices, and the emergence of mass media, stimulating cultural relativity, has created an irreversibly pluralist situation" (Lyon, 1994: 76). An example is Natives in Chiapas, Mexico who used the Net to publicize their plight several years ago. Like the horse, IT may be the tool to allow Native expression; but like a Trojan Horse, it also suggests assimilation.

Jon Pierce tells a story from the Keewatin, of the white men (kual-lunik) who were camped in a raging snowstorm, a whiteout, in the middle of the tundra:

> You couldn't see two feet in front of your face. Then out of nowhere, these Inuit pulled into camp on their skidoos. They just wanted to check to see the visitors were OK. 'How did you find us in this storm,' they asked, marveling at the Inuit abilities on the land. One guy grinned and pulled a

GPS (satellite-driven global positioning system) from inside his parka.

But the skidoo has contributed to the erosion of traditional ways (for instance, the use and socialization of sled dogs, dependence on gasoline and attendant kuallunik values) and the GPS does away with the need to read the sky and the land for directions, that is part of a relationship with the land.

It could also be that the monopolization of IT by giants like Microsoft will lead to even further stratification between the rich and poor, between the white upper class and the Native third world, and between urban and "res" Natives, and young and old. The new stratification system of the Knowledge Economy shows that information manipulation skills (IT savvy) is what counts, not far removed from the point, made by many including Foucault and Bordieu, that knowledge equals power in any social formation.

The Knowledge Economy means that knowledge is increasingly commodified within a market-led world, managerial solutions are sought to contemporary dilemmas. Traditional knowledge no longer works as such; it is an object now digitized.

In Kurt Vonnegut's *Player Piano* of 1952, the third industrial revolution is presented in an anti-utopian portrait. The first industrial revolution devalued physical labor, the second devalued routine and menial work, and the third has devalued human thinking through the use of computers. Perhaps Zbignieuw Brzezinski's term "techtronic society" is more applicable than post-industrial; the computer is the central symbol and analytical engine of change described by Daniel Bell, change in which we have moved to a service society dominated by the rapid growth of professional and technical employment and the explosive convergence of the computer with telecommunications.

Most recently Bill Joy, a pioneer at Sun Microsystems, worries that technologies may collectively create "self-replicating" machines and processes (nanotechnology, genetic technology) by the time computers are "a million more times more powerful" in 2030 (Pugliese, 2000).

Buffy Sainte-Marie says that "real Indian people are rising to the potential of the (computer) technology, in school and out. We were born for this moment and we are solidly behind our pathfinders" (1998 see Appendix A). Can cultures survive when the hegemonic power of the

computer also extends to language, as an English linear (binary) medium in an increasingly English world? For example, with only 3,000 Mohawk speakers left in a population of 10,000,[4] the challenge is to find ways to preserve the language in an increasingly intrusive computer culture. I will explore some good and bad potentials in the following sections.

Time and Space on the Net

Information Technology has increasing power over the future of groups such as First Nations divorced from the institutions and agencies of government. Information Technology in and of itself is an agent of change. Foucault's description of hegemony in terms of seemingly normal practices (such as patriarchy) could be applied to IT, and his argument that these phenomena are beyond the capacity of the dominant group (state, multinational corporation) to manage certainly held true in cyberspace, until recently. The Net grew from military to academic communicatons, from free discourse via freenets and lists to wild west gambling and porn shows, a real free-for-all, but now corporate phenomena such as Knowledge Economy, e-commerce, business-to-business (B2B) and dot-com commercial culture are prevailing.

Space and time and are being rearranged by globalization and technology, leaving behind those who traditionally take their time from the natural world (place). With IT and the Net, place and its historicity has largely been surpassed by the real-time time of telecom. At the same time, new cybercommunities of interest groups, institutions, corporations like Disney and MSNBC are all creating a new space for people: cyberspace. How does this new space relate to natural locales?

I moved inside from the camp just before Thanksgiving, with some friends and their kids who live in southern Ontario. It is a huge draughty old house near (practically on) the train tracks, with a TV constantly running in every room, tied together by the satellite selector on the roof. MSNBC (and its website www.msnbc.com) floored me with the sheer power of its functionality. In early November I watched as the viewers' votes came in via the Net, deciding (in part at least) whether the Republicans should impeach Willie the Twister. This is TV with feedback at last. The set is designed

> *to look like a virtual room; as the camera pans, it looks as if the talking heads are in a holodeck in cyberspace. As we sat by the fire that winter, they started polling people by the millions ...*

Today with globalization and telecom, this new space is prevailing, and "traffics in the contemporaneous and the simultaneous, in synchronic rather than diachronic time ... we are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed" (Kumar, 1995: 146-147).

This world is on the Net, and it has just arrived: Mosaic, the first successful graphic browser, was introduced in January, 1993, and there were some 50 Web servers at the time.[5] A year later, there were 5,000 and 100,000 the year after that. Today, experts are predicting a billion users on the Net by 2005.

On the Net, "the separate stories which are displayed along side one another express orderings of consequentiality typical of a time-space environment from which the hold of place has largely evaporated." This doesn't take us toward global unity; postmodern accounts of communications technologies frequently focus on "dispersal and fragmentation," for Baudrillard this new world of the "pure simulacra, of models, codes and digitality" means the passing of modernity "when history can no longer be seen as unilinear; it is just the past from a series of different viewpoints" (Lyon, 1994: 48-49).

As we are locked into time together on the Net (the "tyranny of the here and now" [Fulford, 1998]), the IT conventions of measuring and meeting digital time globally become that much more different than that of Native people, who traditionally reckon time from the space around them, the earth and the stars. The unnatural and arbitrary timing systems of high tech and infotech are removed from the thirteen moons of twenty-eight days each, with twelve months of irregular lengths, and natural observable phenomena like the seasons[6] are contrasted by the artificial idea of hours, minutes and weeks (and now down to seconds and fractions thereof on the Net).

Native identity, knowledge and time is also centered on place. Giddens observes that "all pre-modern societies always linked time with place," and "no one could tell the time of day without reference to other

socio-spatial markers" and a world where 'when' was almost universally connected with 'where' or identified by regular natural occurrences" (1990: 17). Odawa elder Wilf Peltier said:

> My people never knew or had any position in life except the face of the earth — stretching away from them in all directions forever. And they lived there laterally — on one level with each other and all things. They looked up only to trees and eagles ... By reading our own footprints we could always tell where we had come from. In fact, we had no future. In our language, the closest word we had to future was sort of an arc or circle. Our going was part of the arc of a circle. So was our coming (Pelletier (Wawashkesh): 11).

The use of clocks and now the Net have introduced and reified the idea of "empty time" (a time without reference to the natural world or place), and the "uniformity of measurement by the mechanical clock" has led to "the social organization of time" and also space (Giddens, 1990: 18). Again, a conflict with "Indian time" which emphasizes the seasons, family and community[7] (see Table 1).

Giddens discusses how "coordination across time (through time zones) is the basis of the control of space," that space today is being disassociated from actual "place" by relations fostered "locationally distant from any given situation of face-to-face interaction. In conditions of modernity, place becomes increasingly phantasmagoric: that is to say, locales are thoroughly penetrated by and shaped in terms of social instances quite distant from them" (1990: 18-19).

> *Soon after setting up my camp at the powwow grounds near Ottawa in the early summer, I was sitting by the fire watching the stars when my cell phone rang (or rather buzzed, or rumbled). I was reminded of that TV show where there was a fancy dancer talking to his broker on his cellphone standing outside the circle at the powwow, when he suddenly broke off. "Gotta go, they're playing my song."*

It is a reflexive modernization, knowledge tumbling together at a rapid rate. Or almost at the same time and place: If history was an obsession of the nineteenth century and time and traditions predominated, now the focus is on space, meaning the entire planet together, evolving, changing and problematizing exponentially as the globalization of risk described by Beck and Giddens continues with "the expanding number of contingent events which affect everyone or at least large numbers of people on the planet" is made possible through cybercommunications (1990: 124). Due to instant media and dot-com convergences and expansion of the Internet, "a large part of North American society now lives exclusively in the present tense — (and) the vast expansion of the arts (and information) has made consensus much harder to achieve. It's not that we know so much more; it's that what each of us knows is different" (Fulford, 1998: D8, D10).

> *I was two days west of Ottawa, north of Lake Superior, when I managed to get through to the Net. In the long stretch past Wawa and Marathon, I found a campground at Upsala that would let me plug in my laptop. "But it won't work," the lady in the store said, "because we don't have any Internet here." It worked long distance all right, and I got my work done, sitting behind the ice cream counter in a lawn chair with my laptop on my lap. The farmers coming into the café looked at me like some new kind of threatening animal. "The school is talking about getting the Internet for the kids," she later told me, "but a lot of people don't like it."*

The two most significant elements producing the erratic character of today's IT world are the "unintended consequences and the reflexivity or circularity of social knowledge" (Giddens 1990: 152-53) that we see in the Knowledge Economy. I think the people of Upsala know that. Giddens goes on to say that:

> In conditions of modernity, the social world can never form a stable environment in terms of the input of new knowledge about its character and functioning. New knowledge (concepts, theories, findings) does not simply render the

social world more transparent, but alters its nature, spinning it off in novel directions. The impact of this phenomena is fundamental to the juggernaut-like quality of modernity and affects socialized nature as well as social institutions themselves. For although knowledge about the natural world does not affect the world in a direct way, the circularity of social knowledge incorporates elements of nature via the technological components of abstract systems (IT) (1990: 152-53).

This is part of the phenomenon of globalization. It is more than a diffusion of Western institutions across the world, in which other cultures are crushed. "Globalization, which is a process of uneven development that fragments as it coordinates, introduces new forms of world interdependence, in which, once again, there are no others. These create novel forms of risk and danger at the same time as they promote far-reaching possibilities of global security (beyond the nation-state) — we are speaking here of emergent forms of world interdependence and planetary consciousness" (Giddens, 1990: 175).

David Elkins also argues that IT and the globalized world will not foster homogeneity, but rather that "technology is empowering. We're not forced to be what we were before in terms of our identities because we're no longer bound by the restrictions of distance in the way we once were." Elkins sees an "unbundling" of the power of nation-states in favor of "non-territorial organizations and identities" through the Net, creating "a century of individualism in which multiple loyalties and identities enhance personal freedom because they are based on membership in communities of your own choosing." He goes on to say that "the more extensive the globalization, and by definition the wider the awareness of diverse communities available, the greater the support an individual's community of choice can offer to that uniqueness" (Sibley, 1998: D8-D9).

These last two views seem to bode well for First Nations, but Giddens also admits that "communities" and "traditions" are themselves at risk here: He argues that technology and "time-space distanciation" operate to divorce us from our traditions as writing (and the Internet) "expands the level of time-space distanciation and creates a perspective of past, present and future in which the reflexive appropriation of knowl-

edge can be set off from designated tradition," or knowledge is becoming "disimbedded" from traditions of locale (1990: 37). IT, the new Knowledge Economy and the Internet are all children of what Giddens calls the three "dominant sources of the dynamism of modernity:" 1) Time-space distanciation, which allows for "precise temporal and spatial zoning" and the creation of new groups such as cybercommunities;" 2) "disembedding mechanisms" that "lift out social activity from localized contexts, reorganizing social relations across large space-time distances" (and I would argue that Microsoft is doing that); and "the reflexive appropriation of knowledge," where "the production of systematic knowledge about social life becomes integral to system reproduction (the Knowledge Economy and IT), rolling social life away from the fixities of tradition" (1990: 53).

> *At Kin Coulee Park in Medicine Hat, after pulling off the highway and visiting the "world's largest teepee," a huge steel tubular construction beckoning across the plain on the way into the Hat, I arrived from the flats of Saskatchewan, parked my car and looked for power. I had been on the road across the country for two weeks. Cellphone and laptop powered through electrical inversion from the cigarette lighter all through southern Saskatchewan and before that over the Great Lakes north of Superior. Looking for ranger stations, parks, campgrounds, gas stations, anyplace to plug in and do the day's work.*

Technology VS Tradition

> The information highway is criss-crossing the earth, and I am roadkill by the ditch (Iroquois artist William Powless in Marple 1998).

In the consumer age, in a splintered world bereft of organized opposition to corporate control (rather legions of special interest groups), we are as modern as ever. From Fordism to IT and its post-Fordist implications, we are still bathed in rationalism. And the Net may be a new "superpanopticon" of consumerism and social control, "more insidious to the

extent that it is not understood" (Lyon 1994: 47). The "rationalized bureaucracy" (Weber) that manipulates media and culture can be identified (at least by its components such as Microsoft, Nortel, government, IBM or Pepsi), and as long as technocratic rationality rules as a systemic feature of IT (and how could it not), any exchange among communities is filtered through the IT bureaucracy, and through the nature of the tools themselves.

Native awareness (and fear) of nature is transformed by IT to threats and dangers emanating from the reflexivity of technology and the Web. This is more assimilationist than accommodating. On the one hand we have the monopolist agenda of multinational big business, creators of the technology. On the other hand we have what an advisor at the Assembly of First Nations called "cyberpeasants," anticipating the day when everyone will have the technology — but not the control of it.

First Nations are in search of survival through Net alliances; as are new interest and lobby groups. The promising anarchy of the Internet is inviting to these communities, but we have to remember that the infrastructure and tools supporting it are in the hands of monopolists. If everyone has a watch capable of computing like a Pentium and communicating via satellite, how might the balance of power change, if at all? Won't a kid on the reserve still be living near a communal outhouse at the corner?

> *I found Rabbit Blanket Lake by the top of Superior on the way back. No cell phones, no phones, just radio phones. Rabbit Blanket Lake, provincial campground. Petroglyphs nearby. Buy a photo, go hiking, see the scary spirit of the water. "How big are they?" one camper asked at the office. "About this big" I said, indicating a big whitefish. "Hmmh," he said, nodding. "Wow." He then looked at me suspiciously and the girl behind the counter got uncomfortable as I explained that the people who put those pictures there were still around. Next morning a camp ranger let me get through on his radio phone, miles to the local transmitter, to a satellite station, and I posted the Daily. They said it wasn't possible; You had to dial and then pop the nobs on the phone; can't get through with your digital codes; but we made it work, between the digital codes and the hammering*

> *on the knobs. His father was a developer at Northern Tele-*
> *com, he told me, but he had been taken up by the woods as a*
> *youth and followed the road of forestry, forest management,*
> *the forest. He was the most welcoming of all the trouble-*
> *some logins I had had so far... he liked my Toshiba, and the*
> *woods, and the place we were at... No problem making them*
> *work together...*

Half the Native population in Canada today is youth under the age of 25 (Royal Commission on Aboriginal People, Frideres); IT is important in terms of both economic survival (in the Knowledge Economy) and communications and cultural support (SchoolNet, language and cultural chat groups and resources, the Native Web [see www.carleton.ca/~mpatters/moccasin.htm for a gateway], academic resources and authors). In 1998, National Chief of the AFN Phil Fontaine remarked that

> our future is very much tied to the computer and the youth
> are making the adjustment —they're also creating content
> that expresses their culture and future. We're really leapfrog-
> ging decades of development (by) putting these services
> into communities that in the past have only had one phone.
> (IT) opens opportunities for expression and communication
> among groups across the country and outside the country (in
> Szick, 1998).

"Leapfrogging decades" is an interesting phrase, and quite true. Who, and what, will be left behind in this rapid game? In July 2000, at a convention in Lansdowne Park, Matthew Coon-Come succeeded Fontaine as leader. At the three-day gathering, the Cattle Castle housed a handful of traditional vendors beside a trade show with some fifty booths, including 20 dot-com, Web-driven Native businesses and services, from banking (www.manynations.com) to communications (indbusiness.net) to promotional caps and t-shirts (www.mohawkpromotions.com). Two people were selling hand-made moccasins, dozens of young Natives were selling their websites.

Donald Tapscott says that "for the first time in history, children are more comfortable, knowledgeable, and literate than their parents about an innovation (IT) central to society" (1998: 1). This must be even more

so in Native communities. Particularly as those communities are built on family and extended family, and the computer has already begun to show its downside in terms of family and socialization. Experts are noticing that toddlers with computers are becoming hooked on the quick reaction time of the machines, that the "instant gratification" of children's software is creating aggressive behavior with a low threshold for frustration (Black 1998).

Children are being born with the technology and thus assimilate it; adults can only hope to accommodate. Since the kids are the authority, family members must begin to "respect each other for what their authorities actually are. This creates more of a peer dynamic within families" (Tapscott, 1998: 37). How does it erode the youths' respect for traditional ways however, when given the power of the Net over youth (and vice versa)? Innovations such as the printing press, radio and TV are "unidirectional and controlled by adults" whereas the "new media is interactive, malleable, and distributed in control ... (and) children are taking control of critical elements of a communications revolution" (1998: 26). The youth-elder power base is shifting.

> *As I walked around the Wikwemikong Powwow in late July, kids from toddlers to youth filled the circle, dancing in outfits tied to generations of knowledge. Just that week, Chief Peggy Pitawanakwat opened the Wassa Abin Youth Centre, equipped with 24 new computers and satellite Internet access. MP Mike Brown declared that the community now had ready access to "Wall Street or Harvard University" through the new site (www.wiky.net) (DenEngelsman 1998). Years later, when I checked the website, it was gone.*

"N-Geners ... find power on the Internet because it depends on a distributed, or shared, delivery system" (unlike the media), and "this distributed, or shared power is at the heart of the culture of interaction" (Tapscott, 1998: 79). Foucault presciently talked about the "Web of power," stemming from the "incitement to discourse" about a subject, leading to "increased knowledge on that subject, which leads to power. Power comes from any person who starts a discussion, the discussion forms a web outward to the discussion group, weaves its way out from there to other conversations, and sometimes even returns along the same

or new paths to where it started" (1998: 79). Usenet e-mail groups, websites, and chat groups all have these qualities.

> Global change is scouring the face of the planet, but we
> have lived with it long enough to know that it is not going to
> scrub away the 5,000 languages on the globe. The particular
> is just as tenacious and resourceful as the global. We seem
> to be retribalizing: the more globalism makes our consump-
> tion patterns converge, the more insistently we defend the
> particularities of national differences which remain. And
> sometimes we defend our differences and our identity with
> global tools on the Internet, using software provided by
> such avatars of globalism as Bill Gates (Ignatieff, 1998:
> D10).

Now that we have seen some of the ways in which the forest meets the highway, it is time to look at methods for further research.

Methods

> Truth is a thing of this world: it is produced only by virtue
> of multiple forms of constraint — it is to be understood as a
> system of ordered procedures for the production, regulation,
> distribution, circulation and operation of statements — it is
> linked in a circular relation (reflexive) with systems of
> power which produce and sustain it, and to effects of power
> which it induces and which extends it. A "regime" of truth
> (Foucault, 1984: 72, 74).

This document is a "messy text" involving "hypermedia" — in its Web form (Denzin, 1994), with non-sequential, non-linear sidetrips, perspectives and voices. This is a mode of representation that allows the viewer a window into the issues; it is also a bricolage, using academic, wilderness survival, people and computer (IT) skills for its realization (the bricoleur "is a kind of do-it-yourself person" (Levi-Strauss, 1966: 17) who

creates a "pieced together, close-knit (woven?) set of practices that provide solutions to a problem in a concrete situation" (Denzin, 1994: 2).

It is also aligned to Mills' guidelines for sociological work, in which he suggests that we rearrange our files "to invite imagination" by "mixing up their contents" and re-sorting them with "an attitude of playfulness;" that we consider the extremes in cases, with a "variety of viewpoints;" and also see through "inverting your sense of proportion," making the smallest instance grand and asking what the consequences might be (Mills, 1959: 212, 214-215). While he suggested techniques for enhancing creativity and changing perspectives, in the end his finished product was always very tightly argued, very modern and positivist. I think though modern in intent, my work is post-positivist in method, removed I hope from the following debate:

"Post-modernity is expressed in the language of 'discourses' and 'voices' rather than of falsifiable propositions." The "critical culture of post-modernity creates new spaces and opportunities (in academia); the debates become proof of its existence." This "new reality" becomes the "contentious centre of struggles for cultural power and control" (Kumar, 1995: 183-184). Texts are open devices filled with contradiction and many voices, and agreement on meaning is only possible within "interpretive communities." This is another type of fragmentation and is the pluralism in post-modernism in the absence of any "totalizing" force. Kumar argues that this will lead us toward a "radical individualism, not easily indistinguishable from the individualism of the contemporary radical Right" (1995: 129-132).

Beyond the seeming paralysis of post-modernism, "post-positivism relies on multiple methods as a way of capturing as much of reality as possible" (Denzin, 1994: 5), and also "qualitative research is inherently multimethod in focus. However, the use of multiple methods, and triangulation, reflects an attempt to secure an in-depth understanding of the phenomena in question," and "the qualitative researcher-as-bricoleur uses the tools of his or her methodological trade, deploying whatever strategies, methods or materials are at hand" (Denzin, 1994: 2) This is also in line with Mills: who says that

the sociological imagination ... in considerable part consists
of the capacity to shift from one perspective to another, and
in the process to build up an adequate view of a total society

and of its components ... its essence is the combination of ideas that no one expected were combinable .... There is a playfulness of mind back of such combining as well as a truly fierce drive to make sense of the world (1959: 211).

I was at South Bay Mouth (not to be confused with the Anishnabe community of South Bay), at the tip of Manitoulin waiting for the ferry to Tobermory and the Bruce Peninsula. I stopped at a diner that advertised whitefish and chips, and sure enough, there was an Ojibwe woman there just getting started for the afternoon. I asked if I could plug in; her son the younger thought it was a neat idea but said "ask my dad." The older son sat smoking cigarettes looking out the window at the cars headed for the ferry. I asked their dad if it would be OK for me to tap into his phone line and get to my office. He said allright, come back in the morning. I got takeout whitefish and relaxed at my camp. The next morning, the younger son looked upset and the older had gone off to the powwow; after breakfast Dad told me that he had laid awake all night and thought and now feared that I might use my computer and Internet to get into his bank account and take everything he had from his Interac and the rest; he asked if I could prove otherwise. Not being able to, I nodded to his wife and youngest son and headed to the Esso fishing stop down the road. The owner there, at a busy shopping spot, let me plug in. When I told him about my trouble up the road, he said: "If you can get to my bank account, please put some money in."

As a post-positivist practitioner of "blurred genres," I could use naturalism, ethnometh, postpositivism, feminism, "ethnic paradigms," etc. etc., giving ample opportunity to follow Geertz's admonition to drop the "old functional, positivist, behavioral, totalizing approaches to the human disciplines" in favor of the new "more pluralistic, interpretive, open-ended perspective." Of course now we are ten years or so into a "crisis of representation" following from the above (Denzin 1994: 9-10).

The "double crisis" consists of the fact that "lived experience" becomes "created in the social text written by the researcher" (represen-

tational crisis); and so in the ensuing "legitimation crisis," we ask "how are qualitative studies to be evaluated in the poststructural moment?" (1994: 11). Appreciating the questions of this sociological mid-life crisis, I have to agree that "those who think about it don't do it and those who don't think about it do it" (Karen March, 1999).

The purpose of my inquiry, in terms of critical theory, is "the *critique and transformation* of . . . structures that constrain and exploit humankind, by engagement in confrontation, even conflict. The criteria for progress is that over time, restitution and emancipation should occur and persist" (Guba and Lincoln 1994: 113). The quality or goodness of the inquiry is judged by "the extent to which the inquiry acts to erode ignorance and misapprehensions, and the extent to which it provides a stimulus to action, that is, to the transformation of the existing structure" and the inquirer's voice "is that of the transformational intellectual who has expanded consciousness and so is in a position to confront ignorance and misapprehensions" (1994: 114-115).

Kirby and McKenna's four tasks involved in research from the margins (in my case the bush and cyberspace) are unmasking or questioning knowledge that currently exists; creating knowledge from the basic understanding that social reality is constructed differently by the status quo and those in the margins; affirming the social reality of those in the margins, remaining faithful to their experience and not exploiting it; sharing and reconstructing knowledge, creating knowledge for change, combining knowledge with action (Kirby 1989: 97).

> *I had a dream many winters ago when I came over a hill and saw a gathering of people on a village green; picnic tables, songs being sung, people coming and going and such. A hundred years ago. I walked into that crowd which became thicker and thicker and pushed me through the front door of an old clapboard house. In the parlor, the big room, everyone became very much darker and someone rushed up and ran an eagle feather, a Spotted Eagle feather, through my hair. I then rushed out, was blown out of the room, and flew.*

A relativist process

> *In fall 1998 as I was walking through the 7th floor halls at Loeb (where Sociology/Anthropology debates its nexus) with Wilf Peltier, who was Elder-in-Residence at Carleton at the time, he remarked at all the students and their back-packs full of books rushing around. Many of them were coming to him for help. "That's the trouble with these people," he said. "They're carrying their brains around on their backs."*

Classical sociology, primarily a description of structure and/or process, and its schools "can comment on what (subjects) say because it possesses metalanguage, while they have only language ('Forgive them Father, for they know not what they do')," but "you can study anything with classical sociology - anything except the sciences and technologies, anything except projects. They go too fast. They become too soft or too hard" (Latour, 1996: 199).

Relativist sociology however "has no fixed reference frames, and consequently no metalanguage. It expects the actors to understand what they are and what it is. It does not know what society is composed of, and that is why it goes off to learn what they are and what it is . . . and that is why it goes off to learn from others, from those who are constructing society. It adds its own interpretations to those of the actors whose fate it shares, often less felicitously than they." Moreover, "without any knowledge other than what it gets from (its subjects), it is free at least from the crushing responsibility of being more scientific than the actors. No guilty conscience, no epistemology encumber it, and thus no jargon. For relativist sociology, indeed, everything is grace" (Latour, 1996: 200).

In *We Were Never Modern*, Latour argues that we are in a unique position of being able to borrow the best from three distinct ages in making our social descriptions. In his "Final Examinations" for the current age he suggests we retain things such as "long networks" and "experimentation" from the moderns, the "non-separability of things and signs" and "multiplication of nonhumans" from the premoderns (or Native perspective) and "reflexivity" from the post-moderns, among other things. All of these are present in the study of the growing circle that is IT. Ideas to be rejected according to Latour are the "clandistineness" and "universality and rationality" of the moderns, the "ethnocentrism" and "limits on

scale" of the premoderns and the postmodern "belief in modernism" (which was never achieved as it failed), and "critical deconstruction" as opposed to the more useful "constructionism" or description of process (1993: 135).

Approaches towards conclusions

The speculative and exploratory character of this work can be seen as a learning process. Hunter S. Thompson says that "One of the few ways I can be almost certain I'll understand something is by sitting down and writing about it," but beyond that, as he describes with his research on the Hell's Angels and as I am finding in cyberspace, "this subject was so strange that for the first time in any kind of journalism, I could have the kind of fun with writing that I had had in the past with fiction... I could have the same kind of involvement with what I was writing about, because there were characters so weird that I couldn't make them up... In a way it was like having a novel handed to you with the characters already developed" (Thompson, 1990: 109). And it is true that good sociology should read like a story.

This is a type of ethnography, and it is not much of a stretch from mainstream misapprehensions regarding Hell's Angels to those regarding the Native people of Turtle Island. Or toward IT. Some of the "already developed" characters I work with are at the Assembly of First Nations, others are at places like Maniwaki and Kahnawake, Mountain and Smith's Falls and Ottawa. Their "wierdness" lies in the fact that they are much less and much more than a product of mainstream Western urban society. Yet the subject is strange, where the forest meets the highway, a place where cyberspace brings space and time whirling together, Western and Native worldviews into sharp perspective and contrast.

> *I got an urge to start nailing up some blankets last night,*
> *over these northern windows, but remembered in time that*
> *the things most feared around here go bump in the night. I*
> *can quietly rage to the wind out my eastern door at night of*
> *course, which is quite nice, and have not yet felt the urge*
> *(like one old man once did) to start bellowing out into the*
> *night: "yes, I am the old elder man now, here I am!!" Good*

> *thing I don't have my drum with me - that thing would shake*
> *this house more than any train.*

A central question is: How does one's closeness to the land make one more or less vulnerable to the vagaries of IT? In aid of an answer, the "actors" are people who live in the country and in the bush as well as the city, also technologies from trucks to satellites, also the land itself.

One method of capturing these with a type of theoretical sampling where "the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where (and when) to find them," a process of data collection "controlled by the emerging theory" (Glaser and Strauss, 1967: 45). We end up with "slices of data," in an open inquiry with "no limits to the techniques of data collection;" while accommodating the "diverse structural conditions" of each group (or actors) being studied, the result being "a variety of slices of data that would be bewildering if we wished to evaluate them as accurate evidence for verifications," but are useful in generating theory as this variety "is highly beneficial, because it yields more information on categories than any one mode of knowing (technique of collection)" (1967: 65-66). There is also room for arriving at a grounded theory presented not as a "well-codified set of propositions" but rather a "running theoretical discussion, using conceptual categories and their properties" and the "logico-deductive" process (1967: 31).

By what criteria can such work be judged? In her groundbreaking book *The Second Self - Computers and the Human Spirit*, MIT's Sherry Turkle produced a largely ethnographic document, with informal interviews, to answer the question of "not what will the computer be in the future, but instead, what will we be like? What kind of people are we becoming?" (1985: 13). Beyond that, we can ask: What can answers to such speculative questions mean?

But I believe this study makes the reader consider new possibilities, and effects, of this evolving technology. It is emerging research, akin to what Kirby describes: "Emergent research" or "research from the margins is a method in process; it is continually unfolding. As people use it, what they discover in the process *about the process* contributes to what we know . . . " (Kirby, 1989: 32, itals. mine).

In late summer 2000 at the Karsh-Masson Gallery at City Hall in Ottawa, it seemed that this study had come full circle. Another exhibit of two worlds, where the forest meets the highway. Urban Myths: Aboriginal Artists in the City brought me back home, with Claude Latour's reclaimed telephone pole as a lodge pole (called "I Finally Got My Tree Back"), surrounded by Ron Noganosh's "Alien," a wood-sprite made of roots, sticks, feathers and computer parts, and Barry Ace's Ojibwe beaded vest, with a beaded, printed circuit board on the back. All about communications, technology, traditions and their weavings.

It is not pure science, but as Cassel says: "Atoms do not read scientific papers and change their behavior accordingly. On the other hand, a social scientist's theories about the world can make a difference to the very nature of social life itself" (1993: 35).

Upon seeing my STOP James Bay II t-shirt, a British expatriate started a rant, describing the vast workings of the facilities at James Bay I where he had been, the huge impression of the vast science and technology of the dynamos and reservoirs, and the endless 900 mile road carved through the empty bush, ending at "an 1800s frontier town" he exulted. He likened his experience to being an 1800s British explorer going into the jungle ("not that it was really like a jungle"); he wanted to ride the highway on a motorcycle as a challenge akin to that taken on by British mountaineers. Where the highway beats the forest . . . Or in the case of James Bay II, where the forest flees the highway... No a guy you want to bring to the powwow, for sure . . .

In my 1996 thesis regarding Native music and the Seventh Fire prophecy, I tried to show how an Anishnabe prophecy showed the destiny of the four races coming together rapidly, and now that can be seen in the collision of Natives and IT. My work was a critical history, thick description and ethnography lauded at the School of Canadian Studies and at the School for Studies in Arts and Culture at Carleton; I thought at the time that my job was to "get the word out." I was later accused of

being a messianic millenialist by my peers in Sociology who saw no science in what I was doing.

Today I have gone to the critical, fuzzy front-end of thesis development; Foucault describes "work (taking) place between unfinished abutments and anticipatory strings of dots... open up a space of research, try it out, and then if it doesn't work, try again somewhere else" (1991: 73-74). Mills says that:

> The classic social analyst has avoided any rigid set of procedures; he has sought to develop and to use in his work the sociological imagination. Repelled by the association and disassociation of Concepts, he has used more elaborated terms only when he has good reason to believe that by their use he enlarges the scope of his sensibilities, the precision of his references, the depth of his reasoning. He has not been inhibited by method and technique; the classic way has been the way of an intellectual craftsman (1959: 120)

Most importantly, "if a reader becomes sufficiently caught up in the description so that he feels vicariously that he is also in the field, then it is more likely to be kindly disposed toward the researcher's theory than if the description seems flat or unconvincing" (1967: 230-231).

I have used some descriptions to show the reader, I hope, some places where the forest meets the highway, and where theory might meet method, where groups such as Natives on the rez and dairy farmers on the (Native) land, city dwellers and country dwellers, Baby Boomers and N-Genrs, the near and the distanced, become potentially comparable in the face of IT. Like Mills, Howard Becker talks about using tricks in perspective, such as imagining the impossible to be true, then looking for examples in the field; part of a bag of tricks for "expanding and complicating your theory of the world" such as: "The opposite is true, too" and "You don't have to prove anything" (1989: 489).

It is true, as an advisor admonished me, that this is not so much a thesis as it is a quest.

Table 1: Differences Between Native and White Values, also a continuum of cultural hegemony (This is a very general guide, using extremes, and does not account for the majority, who are the people "in between" these generalizations)

Native values	Mainstream (White) Values	IT attributes
Group emphasis	Individual emphasis	Hackers are loners
Cooperation (concern with group)	Competition (self-concern)	Assimilationist, hegemonic
Time and place together	Awareness of time predominates	Time becomes disassociated from space
Present oriented	Future oriented	Future oriented
Age (respect for Elders)	Youth	Youth
Harmony with nature	Conquest of nature	Nature synthesized
Giving, sharing (barter system)	Saving (capitalist system)	Consumerism
More Practical	More Theoretical	Rhetorical
Patience	Impatience	Immediate gratification
Extended family, space designed for group activities, youth and adults together.	Immediate family, space designed for separation and privacy, youth and adults apart.	Extended Web community, space is virtual cyberspace, generations are divided even more.
Non-materialistic (goods produced for use, subsistence)	Materialistic (goods produced for sale, profit, growth)	Goods (knowledge) reflexively produced for Knowledge Economy

Table 1- Differences Between Native and White Values, also a continuum of cultural hegemony (This is a very general guide, using extremes, and does not account for the majority, who are the people "in between" these generalizations)

Native values	Mainstream (White) Values	IT attributes
Modest	Overstates (over-confident)	Postmodern angst
Quiet	Loud	Quiet
Respect for other religions	Converts others to own religion	Discourse on religions, new Cybercults?
Matriarchy or patriarchy	Patriarchy	Patriarchy, anarchy
Religion (spirituality) a way of life	Religion a segment of life	Virtual spirituality
(The drum a way of life)	(Music a segment of "culture")	Music a digital accessory
Land, water, forests and other resources belong to all, and to be used reasonably	Land, water, forests and other resources belong to the private domain, and to be consumed	Land not necessary, resources are knowledge, access restricted to those with technology. Rise of Cybernations (Republic of Lomar)
Distribution of resources	Accumulation of wealth	Wealth of knowledge
Consensus, face-to-face government (one person one voice in consensual process)	Representative democracy (one person one vote in hierarchical system)	No consensus, no representation in anarchistic cyberspace, no system but WWW
Decentralized, local power	Centralized authority	Decentralized, extralocal power

Sources for first 2 columns: Frideres 1998, Mander 1991: 215-219, Tanner 1983: 296-297;notes in brackets and 3rd column are mine.

Appendix A: Buffy Sainte-Marie

On an airplane, my Powerbook is singing to me in Lakota, while the words to the song appear onscreen in both Lakota and English.

In the Canadian Rockies, Indians carrying portable computers trudge through a herd of elk and into the Banff Center for the Arts where the "Drumbeats to Drumbytes" thinktank confronts the reality of online life as it affects Native artists.

A week later in Bismarck, North Dakota, the American Indian Higher Education Consortium votes "yes" to V-SAT technology that will facilitate distance learning in and out of various Indian communities and 30 Indian colleges.

Across Canada, thousands of First Nations children network their observations and life experiences into mainstream education, as the Cradleboard Teaching Project/Kids From Kanata partnership provides both Native content and connectivity to schools as far away as Hawaii and Baffin Island.

I make a commercial record in a tipi on the Saskatchewan plains, and CBC television films the event for international broadcast. Navajo E-mail markets crafts to 40 foreign countries. A six-foot high painting of Indian elders graces the front office of the American Indian College Fund in Washington, D.C.: it's digital and it's Indian made.

The digital scene in Indian country at the moment is a microcosm of the way it is most everywhere else, with people at various stages of expertise and enthusiasm going through the big shift. Issues of sovereignty are often the first to come up among Native intellectuals, and the spectre of digital colonialism frightens some and challenges others. Questions of control and ownership arise of course, as they do in the mainstream, but with perhaps a sharper edge, given the facts of Native American history. Indian educators, artists, elders, women, tribal leaders and business people have plenty on our minds when it comes to counterbalancing past misinterpretations with positive realities, and past exploitations with future opportunities. The reality of the situation is that we're not all dead and stuffed in some museum with the dinosaurs: we are Here in this digital age. We have led the pack in a couple of areas (digital music and online art). Although our potential at the moment exceeds the extensiveness of our community computer usage, our projects are already bearing fruit, we expect to prosper and to contribute, and we will defend our data.

Among Indian people online as elsewhere, we continue to observe the usual gangs of unknowledgeable non-Indian and/or "I-was-an-Indian-in-my-last-life" opportunists and exploiters, who now are upgrading their acts, trying to take advantage of rumored tax breaks and other scams in the cyber-sector of Indian country; but we are pretty much used to this "vapor-speak" phenomenon, having lived with it lo these past 500 years. "Beware of White man bearing good ideas and grant proposals" is a tacet refrain we laugh about over the phone. However, I am glad to report that usually this observation does not interfere with honest deals among knowledgeable people of different races; and personally I do believe that we're smart enough to know who our friends are; and they come in all colors.

Sometimes I am asked, where did all the brain and fire of the sixties American Indian activism go? In my observation, in Canada we went into every field; but in the United States, where things were far more dangerous, those of us who were not killed, imprisoned, put out of business or otherwise sacrificed to the uranium industry, went into education. If I have a message in this scant overview, it is this: real Indian people are rising to the potential of the technology, in school and out. We were born for this moment and we are solidly behind our pathfinders.

From Buffy Sainte-Marie's Cyberskins at http://www.aloha.net/~bsm/cybersk.htm

Notes

1. This essay also available www.carleton.ca/~mpatters/soc.html

2. First Nations is a political construction, and a Native answer to the Canadian political system, that exists more as an abstraction than reality. The Assembly of First Nations represents "Status Indians;" I will use the term Native to refer to all people who are descendants of or related to the original inhabitants of Turtle Island (North America). Today this includes full-bloods, mixed-bloods, status, non-status, Inuit, Metis and distant relations. Descendants of the original people here do not have a common name, as there are diverse histories and origin stories. People in the United States still often prefer to use the term "Indians," although this reference is now in disrepute in Canada. "Native" had become the preferred term here in the 1980s, but there are now (governmental and other) advocates for the use of the terms "Aboriginal," " Indigenous," "First Nations" and even "First People" people.

3. Based on work by William Robertson and Henry F. Dobyns, Sioui says that the Native population in North America dwindled from 18 million in 1497 to some 250 - 300, 000 by 1900, largely through starvation and imported diseases, not warfare (Sioui 1992: 3). The population now, counting mixed-blood people, could be over 5 million. In Canada the Native population is now around 3.5% of the total population and is estimated to reach almost 4% or approaching 1.5 million by 2001 (Frideres 2000). These figures take into account status and non-status "Indians," Inuit and Métis. From 1981 to 1991 the status Indian and Inuit populations increased one-third while non-status Natives almost doubled their numbers. "The overall Aboriginal population is growing very fast... and (status Indians and Inuit) will continue to have higher growth rates than the Canadian population for several decades (1993: 129). Other estimates of overall Native population range from two to four million, taking into account all of the "distant relations" from early French, Irish, Scottish and Native meetings.

4."MOHAWK [MOH] 3,000 total speakers out of 10,000 population including USA (1977 SIL); 1,667 speakers in USA (1990 census). All Iroquoian mother tongue speakers in Canada 6,075 (1981 census). Southwestern Quebec, southern Ontario. Iroquoian, Northern Iroquoian, Five Nations, Mohawk-Oneida. Most speakers are middle-aged or over. In some areas younger ones may speak the language. 75% to 100% literate. Grammar, dictionaries. Bible portions 1787-1991." (Ethnologue at http://www.sil.org/ethnologue/countries/ Cana.html#MOH). There is a very strong emphasis on language at Mohawk schools these days, from Kahnawake and Kahnasetake to Six Nations.

5. The first browser was WWW devised by Tim Berners-Lee, the second was Lynx developed by Lou Montoulli at U of Kansas. The "father of the Internet" Vint Cerf developed an Internet protocol (TCP/IP) in 1974 (see http:// apcmag.com/profiles/213a_1ce.htm). For earlier events in the 60s, see http:// SurfSites.com/Internet_History/.

6. Iroquois Moons include the Green Corn, Strawberries, Midwinter and The Grandmother Brings Fertility to Women. Anishnabek Moons include the Little Bears, Crusted Snow, Strawberry and Wild Rice. Norman Rosenthal, a researcher on Seasonal Affective Disorder (SAD) which is a depression brought about by the lack of daylight in winter, says that modern medical practitioners are beginning to re-discover the effects of the seasons (natural time) on people. For instance the observance of Christmas and Hanukkah is seasonal; a gathering at midwinter in the tradition of the Ancient Romans (Saturnalia) and also Native midwinter gatherings. "While older civilizations all viewed time as cyclical, a

linear view of time has dominated (non-Native perspectives) since the 17th century, which is more in keeping with ideas about human progress" (Robin 1995: A1). "Unlike the future orientation of the 'Great Religions' tribal ideology emphasized that everything was good in its natural form - and should stay that way. For untold centuries the present was experienced as a continuation of the past, a perpetuation of the sacredness of life in all its manifestations" (Brasser 1987: 122).

7. So-called "Indian time" is sometimes used as a reference to "indifference to promptness," but actually it "is based on an understanding of time which is often linked at the tribal level to language and structure." On an individual basis, it is "a need not to be filled with activity... Indian people know how to sit still and enjoy things, how to look even when there is nothing to see. Indians feel no compulsion to fill time with words. Words should not be substituted for meaning." When words are used in ceremony or storytelling, "all time is fused into one, with no past, present and future. The same may be said of the dance at powwows." This view of time is also linked to the individual freedom of Native people, allowing for as much free time as possible for creation and realization of one's own potential, which is then shared with the group as part of each individual's "autonomy and responsibility" (Young 1981: 345-346).

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