Rethinking the Digital Age

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In March 2005, the United Nations inaugurated a long-awaited program, a "Digital Solidarity Fund," to underwrite initiatives that address "the uneven distribution and use of new information and communication technologies" and "enable excluded people and countries to enter the new era of the information society" ("From the Digital Divide," 2005)[1]. What this might mean in practice–which digital technologies might make a significant difference and for whom and with what resources—is still an open and contentious question.[2]

Debates about plans for The Fund at the first and second meetings of the World Summit on the Information Society (WSIS) in December 2003 (Geneva) and November 2005 (Tunisia) were symptomatic of the complexity of debates surrounding "global digital divide" issues which oscillate between notions of self-determination and technological innovation.[3] In this paper, I consider how new media technologies have been taken up in indigenous communities -- with both ambivalence and enthusiasm -- over the last decade. To give a sense of the range of responses in different settings, I start with three quotes that articulate a spectrum of attitudes. The first -- a statement leaning toward the technophilic—is from Jolene Rickard, a Tuscarora artist, scholar, and community leader, introducing an online project, called "CyberPowWow: An Aboriginally Determined Territory in Cyberspace" http://www.cyberpowwow.net/index.html[4] that began in 1996 in order to get more Native American art, artists, and writers as well as discussion about them, on the web:

> Wasn't it the Hopi that warned of a time when the world would be circled by a spiders' web of
>
> power lines? That time has come…. There is no doubt that First Nations Peoples are wired and

ready to surf and chat. It seems like a distant memory when the tone of discussion about

computers, interactivity, and aboriginal people was filled with Prophetic caution. Ironically, the

image of Natives is still firmly planted in the past. The idea that Indians would be on the frontier

of a technology is inconsistent with the dominant image of "traditional" Indians. (Rickard 1999)

The second, more skeptical, quote is from Alopi Latukefu, regional manager of the Outback

Digital Network,[5] a digitally-based broadband network that began in 1996, linking six Aboriginal

communities in Australia, and currently servicing the broadband communications needs of 17

communities in the Cape York region of northern Queensland, with plans to roll out further infrastructure

to the Northern Western Australia and the Northern Territory:[6]

> So seductive is the power of the ICT medium that it might only appear to remove centralized
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> control out of the hands of government and into the hands of the people, giving them the notion
>
> of … empowerment. While ongoing struggles for self-determination play a complex role in the
>
> drive to bring the information age to indigenous communities in Australia and around the world,
>
> it can be argued that self-determination within one system may well be a further buy in to
>
> another. (Latukefu, 2006, p. 4)

Latukefu continues:

> The issue that needs to be raised before any question of indigenous usage of the Internet is
>
> addressed is: whose information infrastructure or "info-structure" determines what is valued in an
>
> economy–whether in the local community or the greater global economy which they are linked
>
> to? ... Associated with this is the overarching issue of who determines knowledge within these
>
> remote communities and for the wider indigenous populations throughout Australia and beyond?
>
> (Latukefu, 2006, p. 4)

The third quote is from the 2003 Indigenous Position Paper for the World Summit on the Information

Society, which states, "Our collective knowledge is not merely a commodity to be traded like any other in

the market place. We strongly object to the notion that it constitute a raw material or commercial resource

for the knowledge-based economy of the Information Society." Like some of their corporate counterparts, international indigenous representatives want to limit the circulation of particular ideas, knowledge and cultural materials. They "strongly reject the application of the public domain concept to any aspect related to our cultures and identities" and further "reject the application of IPR [intellectual property rights] regimes to assert patents, copyrights, or trademark monopolies for products, data or processes derived or originating from our traditional knowledge or our cultural expressions…." (Indigenous Position Paper, 2003)

The issues raised in these quotes echo those I have heard in my own research with indigenous media makers, positions that are not necessarily in contradiction. Fundamentally, they ask who has the right to control knowledge and what are the consequences of the new circulatory regimes introduced by digital technologies. Rickard articulates a desire, as an indigenous artist, to work with digital technologies in order to link indigenous communities to each other on their own terms, objecting to stereotypes that suggest traditional communities should not have access to forms associated with modernity. Latukefu cautions that one must take into account the power relations that decide whose knowledge is valued, while the statement of the Indigenous People's Working Group offers a strong warning against the commodification of their knowledge under western systems of intellectual property.

Why are their concerns barely audible in discussions of new media? I would like to suggest that part of the problem has to do with the rise of the term "The Digital Age" over the last decade and the assumptions that support it. While it initially had the shock of the new, it now has become as naturalized for many of us as a temporal marking of the dominance of a certain kind of technological regime ("the Digital"), displacing for example, prior designations such as The Video Age, in reference to the introduction of small format analog video in the late 1980s.[7] That technology – in addition to being inexpensive and easy to use – did not require literacy, English language skills, and constant interaction. It was remarkably adaptable for people who were comfortable and skilled at performative forms of expression, and who might only want to be using the medium intermittently, cultural and social facts that the early work of Eric Michaels helped to demonstrate.[8] Digital video is linked not only to computer-

based editing systems, but potentially to the internet and world wide web more broadly . While these possibilities can offer great advantages, digital technologies also depend on a number of elements that stratify the capacity of different kinds of communities to use them. They rely much more heavily on literacy in English (or some other dominant language), climate controlled spaces with reliable flows of electricity, and a far more constant temporality, among other things. For these reasons, digital systems are likely to be more expensive as well. These very different and basic possibilities and limits that differentiate digital vs. analog video technologies are rarely discussed in the literature, despite the significance of such differences in remote communities that may be "culturally rich" but are subject to extreme weather conditions, uneven access to electricity, and limited literacy in English.

The lack of such recognition seems even more remarkable given certain realities: according to statistics from the January 2005 World Economic Forum in Davos, only 12% of the world is wired, and only 16 people in every 100 of the world's population are serviced with telephone land lines.[9] Digerati may see those numbers and salivate at the possibilities for entrepreneurship. But for an anthropologist who has spent a good portion of her career looking at the uptake of media in remote indigenous communities, the unexamined ethnocentrism that undergirds assumptions about the digital age is discouraging; indeed, the seeming ubiquity of the Internet appears a façade of First World illusions. I am not suggesting that the massive shifts in communication, sociality, knowledge production, and politics that the internet enables are simply irrelevant to remote communities; on the contrary, such technology might be of considerable interest if it can be incorporated on indigenous terms. My concern here is with how the d*iscourse* of the digital age smuggles in a set of assumptions that paper over cultural differences in the way things digital may be taken up—if at all—in radically different contexts and thus serve to further insulate thinking against recognition of alterity that different kinds of media worlds present, particularly in key areas such as intellectual property.

In this chapter, I examine how concepts such as The Digital Age have taken on a sense of evolutionary inevitability, thus creating an increasing stratification and ethnocentrism in the distribution of certain kinds of media practices, despite prior and recent trends to de-Westernize media studies (see

Curran & Park, 2000). Work in new (and old) media that is being produced in indigenous communities might expand and complicate our ideas about "the Digital Age" in ways that take into account other points of view in the so-called global village. [10]

A History of Digital Debates

Let me turn to my first task by briefly reviewing some of the recent debates around the rhetoric of the digital age—for certainly I am not alone in my concern, though mine may be shaped in a particular way. Within the ranks of those who have been writing and worrying about "Cultural Production in a Digital Age" and its global implications, there is some contestation as to "whether it is appropriate, given unequal access to advanced technologies (let alone more basic goods)" in different parts of the world, that the term The Digital Age be used to define the current period (see Klineneberg & Benzecry, 2005). This debate occurs in tandem with that attached to The Digital Divide, the phrase invented to describe the circumstances of inequality that characterize access (or lack of access) to resources, technological and otherwise, across much of the globe.[11] Even as it wants to call well-intentioned concern to such inequities, the term nonetheless invokes neo-developmentalist language that assumes that less privileged cultural enclaves with little or no access to digital resources–from the South Bronx to the global South—are simply waiting, endlessly, to catch up to the privileged West. Inevitably, the language suggests, they are simply falling farther behind the current epicenter–whether that be Silicon Valley or the MIT Media Lab.

Some exemplary cases that have made it to *The New York Times* and the *Wall Street Journal* provide charming counterpoints of hopeful possibility, stories of far-flung villages "catching up" to the west. For example, in a *New York Times* article, James Brooks (2004) describes the work of Bernard Krisher, representing both MIT's Media Lab and the American Assistance for Cambodia group in O Siengle, Cambodia, a village of less than 800 people on the edge of the forest that is emblematic of life for the millions of Asians who live on the unwired side of the Digital Divide. Through the Motoman project, the village connects its new elementary school to the Internet. Since they have no electricity or phones, the system is powered by solar panels, and, as Brooks (2004) describes it:

> An Internet "Motoman" rides a red motorcycle slowly past the school [once a day]. On the passenger seat is a gray metal box with a short fat antenna. The box holds a wireless Wi-Fi chip set that allows the exchange of e-mail between the box and computers. Briefly, this schoolyard of tree stumps and a hand-cranked water well becomes an Internet hot spot [a process duplicated in five other villages]. At dusk, the motorcycles [from 5 villages] converge on the provincial capital, Ban Lung, where an advanced school is equipped with a satellite dish, allowing a bulk e-mail exchange with the outside world. [12]

Tellingly, this story was in the Business Section of the *Times*, suggesting that part of its charm is the possibility of new markets, the engine that drives even such idealistic innovation in consumer technologies; computers and the internet are hardly exceptional.

This techno-imaginary universe–of digital eras and divides—has the effect, I argue, of reinscribing onto the world a kind of "allochronic chronopolitics" (to borrow an ungainly term from Johannes Fabian's 1983 classic *Time and the Other*), in which "the other" exists in a time not contemporary with our own. This has the effect of re-stratifying the world along lines of a late modernity, despite the utopian promises by the digerati of the possibilities of a 21st-century McLuhanesque global village. For the last two decades, scholars have argued about (and mostly for) the transformative power of digital systems and their capacity to alter daily life, democratic politics, and personhood. That sense of a paradigm shift is perhaps most evident in Castells's 1996 classic, *The Rise of the Network Society*. The premise of his work, of course, is that the Internet has more or less created a new era by providing the technological basis for the organizational form of the Information Age: the network. In *The Internet Galaxy* (2003), Castells's scale seems to have expanded from society to the cosmos. While he celebrates the Internet's capacity to liberate, he also cautions us about its ability to marginalize and exclude those who do not have access to it and suggests that we need to take responsibility for the future of this new information age.

Taking that critique a bit farther, no less a luminary than Bill Gates, founder of Microsoft and once the personification of new media evangelism, has become an outspoken critic of that attitude.

Initially, he was part of the group of American executives who, at the 1998 World Economic Forum in Davos, dedicated themselves to closing the gap on digital equity. By 2000, however, in a speech at a conference entitled Creating Digital Dividends, Gates demonstrated a remarkable change of heart, offering blistering criticism of the idea of the digital divide and its capacity to blind people to the reality of the conditions of the globe's poorest people. As he put it at the time:

> O.K., you want to send computers to Africa, what about food and electricity—those computers aren't going to be that valuable. The mothers are going to walk right up to that computer and say, "My children are dying, what can you do?" They're not going to sit there and like, browse eBay or something. What they want is for their children to live. They don't want their children's growth to be stunted. Do you really have to put in computers to figure that out? (quoted in Verhovic, 2000, p. A1) [13]

His apparent disdain for the notion that the world's poorest people constitute a significant market for high-tech products has had an impact. The priorities of the $21-billion-dollar Bill and Melinda Gates Foundation are with health care, in particular the development and distribution of vaccines. At the January 2005 World Economic Forum meeting, while technology guru Nicholas Negroponte was marketing a mock-up of a $100 laptop computer hoping to capture China's 220 million students as possible consumers of digital technology, Gates was reported to be "in the thick of plenary discussions … considering ways of eliminating poverty and disease that do not encompass information technology" (Markoff, 2005).[14] "I think it's fascinating," Gates commented, "that there was no plenary session at Davos this year on how information technology is changing the world" (Markoff, 2005).[15]

The internet—of course–has been met with some optimism by those sharing concerns of broader access for freedom of expression and social movements. Manuel Castells in *The Power of Identity* (1997) noted the range of dissident social actors, such as the Zapatistas in Mexico. Today, we would add to that list an array of groups from the grassroots leftist political sentiments organized by moveon.org to right-wing Christians and militant Islamists to the Falun Gong in China. These and scores of other groups have used the internet to shape what some call "the network logic" of anti-[corporate]-globalization

movements and smart mobs, as well as its uptake by loosely-linked Islamic terrorists. Additionally, a number of researchers have noted how the internet has in many cases reduced the "price of entry" into a cultural field, creating openings for actors and organizations who were previously unable to get their work into the public, as the inclusion and insidious impact of bloggers during the 2004 U.S. presidential campaigns (Massing, 2005). Clearly then, digital networks can enable the global dispersion of creative and political activity.

In their March 12-18, 2005 cover story, no less an advocate for the spread of free enterprise than *The Economist* features a rethinking of the term (and terms of) The Real Digital Divide, along with a compelling photo of a young African boy holding an ersatz cell phone made of mud to his ear. Its lead opinion piece states that "the debate over the digital divide is founded on a myth—that plugging poor countries into the internet will help them to become rich rapidly. … So even if it were possible to wave a magic wand and cause a computer to appear in every household on earth, it would not achieve very much: a computer is not useful if you have no food or electricity and cannot read" (Technology and Development, 2005). (see Fig. 1)
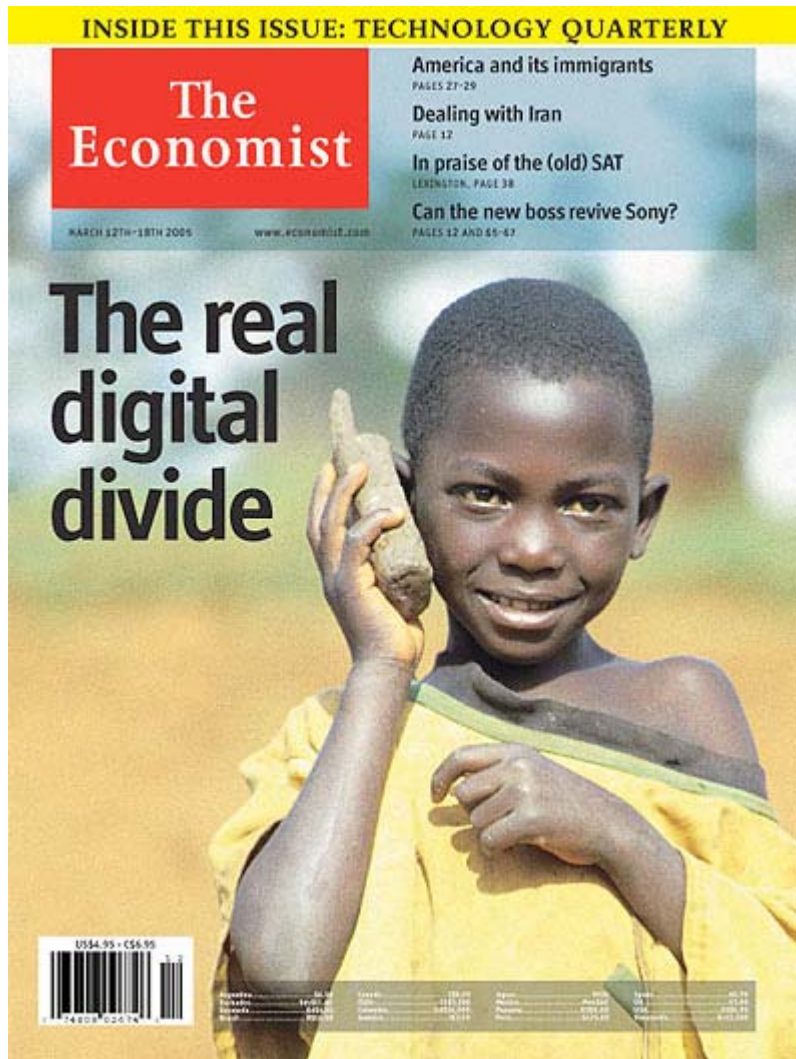
Figure 1. *The Economist* cover, March 12-18, 2005

Ideas about what The Digital Age might offer look different from the perspective of people struggling to manage to make ends meet on a daily basis. As *The Economist* notes, research suggests that radio and cell phones may be the forms of digital technology that make the difference, once basic needs are addressed (Norris, Bennett & Entman, 2001). My concern here, however, is to ask whether terms like The Digital Divide too easily foreclose discussion about what the stakes are for those who are out of power. Rather than imagining that we know the answers, clearly, we need to keep listening to the large percentage of the earth's population that is on the unwired side of the so-called digital divide.

Going Digital: Indigenous Internet "On the Ground"

So what does "The Digital Age" feel and look like in indigenous communities in remote regions of the world where access to telephone land lines can still be difficult? As Kyra Landzelius asks in her 2006 collection, *Native on the Net*: "Can the info-superhighway be a fast track to greater empowerment for the historically disenfranchised? Or do they risk becoming 'roadkill': casualties of hyper-media and the drive to electronically map everything?" (2006: 1) Recent developments give some insight into what it might actually mean for indigenous subjects. As Harald Prins (2001) has argued regarding the place of indigenous people in "cyberia",

> Although indigenous peoples are proportionally underrepresented in cyberspace—for obvious reasons such as economic poverty, technological inexperience, linguistic isolation, political repression, and/or cultural resistance—the Internet has vastly extended traditional networks of information and communication. Greatly enhancing the visibility of otherwise marginal communities and individuals, the information superhighway enables even very small and isolated communities to expand their sphere of influence and mobilize political support in their struggles for cultural survival. In addition to maintaining contact with their own communities, indigenous peoples also use the Internet to connect with other such widely dispersed groups in the world. Today, it is not unusual for a Mi'kmaq in Newfoundland to go on the Internet and communicate with individuals belonging to other remote groups such as the Maori in New Zealand, Saami in Norway, Kuna in Panama, or Navajo in Arizona. Together with the rest of us, they have pioneered across the new cultural frontier and are now surfing daily through Cyberia.

Clearly, Prins points to the circumstances in which use of the internet–and more broadly the cross-platformed use of digital technologies—is being taken up in indigenous communities on their own terms, furthering the development of political networks and the capacity to extend their traditional cultural worlds into new domains, as well as extend campaigns for recognition and sovereignty.

While I cannot possibly do justice to the many innovative projects that have been developed, I would like to briefly mention a few exemplary ones that address areas of particular concern to indigenous communities before entering into a longer discussion of three cases. Juan Salazar, working with and writing about Mapuche use of the internet in Chile and beyond in an age of increased digitization of cultural resources and information, showing how "the internet has facilitated the building of an online community to support the Mapuche's struggle for land rights and cultural recognition" (Salazar 2005: 71). Ramesh Srinivasan has been working with Zuni communities and Cambridge University's Museum of Anthropology and Archeaology to create systems of digital access to ancestral objects, allowing knowledge systems to be presented through information systems that recognize multiple ontologies (2007 Boast, Bravo and Srinivasan).

In indigenous Australia, where the politics of knowledge ownership are very distinctive, a number of projects have attempted to find ways to accommodate this alterity, from the very structure of computer language, to finding ways to protect knowledge that should not be made accessible. In his work creating a Yolngu language-based digital archive built with a community of Yolngu speakers in Arnhem land in northern Australia, Michael Christie points out that databases are not innocent. In their work, they have recreated metadata formats to "avoid pressing Aboriginal knowledge through the sieve of objectivist ontology" by exploring how "digital technology can allow Yolngu to represent themselves graphically and vocally, consistent with traditional styles of representation" (Christie 2005: p. 55). Other projects in central Australia include a CD-ROM made on Aboriginal art and knowledge with Lajamanu in the Northern Territory (Glowczeski 2005), and Kim Christen's work with Warumungu community in the production of an indigenous community digital archive which raises important questions regarding "structures of accountability, ongoing systems of inequity and overlapping access regimes involved in the always tense processes of cultural innovation" (2005:315). Summarizing the key issues at stake for many indigenous Australians, legal scholars Jane Anderson and Kathy Bowrey writes:

The current presentation of global information technologies and cultural openness as a

universal good works to suppress the reality of significant localized histories and concerns. The

internet, advanced database tools and funds being more readily available to make institutional

resources more accessible, are all mechanisms that perpetuate in new more extensive 'global'

ways, the original wrongful takings and wrongful access to cultural property. The politics of the

communications medium and its content cannot be understated.

Does it matter that the increased potential for circulation of material with digitization and the

internet is assumed to be of benefit for all, without attention what the people intimately connected

with the material might think? (2007: 10)

In the following section of the paper, I will discuss three initiatives that demonstrate what some

of these possibilities look like in three very different parts of the world: the Inuit region of Nunavut

through the work of Igloolik Isuma; the work of Arrernte living in town camps in Alice Springs, Central

Australia, creating an innovative interactive project called "Us Mob"; and a digital animation project by

Canadian-based Northwest Coast Aboriginal artists and storytellers who have created an animated version

of *The Raven's Tale*. All are exemplary of community-based groups collaborating with a number of

agencies to indigenize the use of digital technologies in the interests of storytelling as a way to generate

broader recognition of their histories and cultures, for wider audiences, but most importantly for their own

cultural futures.[16]

Igloolik Isuma and Sila.nu (http://www.isuma.ca/thejournals/en/)

During the 1970s, as satellite-based television made its way into the Canadian Arctic, Inuit people

began exploring the possibilities that these combinations of media forms offered for local productions that

could be distributed over the vast expanses of Canada's north. Zacharias Kunuk, a young Inuit man at that

time, had the vision to turn these technologies into vehicles for cultural expression of Inuit lives and

histories, forming a media production group called *Igloolik Isuma*.[17] Kunuk worked with friends and

family members, creating a remarkable team of non-professional actors who recreated the stories of the

transformations of their own lives over the last century, starting with works such as *Qaggig* in 1988 and quickly moving on to create the remarkable television series entitled *Nunavut* ("our land" in Inuktitut), which is also the name of the Canadian territory created in 1999 as part of the Nunavut Land Claims Act where Kunuk's home settlement is located.[18] The series *Nunavut* was a staple not only of TV Northern Canada (the pan-Arctic satellite station that preceded the current first national indigenous cable television station, APTN/ Aboriginal Peoples Television Network), but it also screened at the Museum of Modern Art in New York and the Centre Pompidou in Paris.

Fast forward to 2001 and the premiere at the Cannes Film Festival of Kunuk's first feature, the epic recreation of a well-known Inuit legend, *Atanarjuat: The Fast Runner,*[19] at the Cannes Film Festival; there, this first film ever made by an Inuit director in the Inuktitut language received the coveted Camera D'Or award for best first feature and went on to stunning critical and theatrical success, picking up many more awards along the way. In 2005, Kunuk and his crew shot their second feature, a Danish co-production entitled *The Journals of Knud Rasmussen*, based on the writings of the famous Inuit-Danish explorer who traveled throughout the Arctic in the 1920s exploring the transformations of Inuit life that were occurring in the early 20th century, when Inuit shamans first encountered Christian missionaries. The journals provide the storyline for a film that provides an Inuit perspective on that fateful historical encounter.

But never content to think conventionally, Kunuk and company established an incredible web site from the film's production location (http://www.sila.nu/live) that allowed us to follow what was happening on the film set on a daily basis while also sending us back to Rasmussen's journals and the key characters he met in his journeys through the Arctic.[20] Daily blogs by an "embedded" journalist and (of course) their own anthropologist provided different perspectives, while QuickTime movies showed us how multiple languages (English, French, Inuktitut, Danish) were negotiated, as well as how props and food were managed in this remote Arctic locale. Pop-ups offered a linked glossary for foreign or more arcane words. Background bios on key personnel–on and off screen–illuminated the community-based approach to filmmaking that Kunuk and his partner Norman Cohn have perfected. (My personal favorite

was the interview with the lead sled dog, Tooguyuk, who "described" the trials of learning commands in both "Greenlandic" and "Igloolik" and talked about looking forward to his "girlfriend having puppies so I'm excited to be a daddy.") Inuit website producer Katarina Soukup explained the project and its origins:

> Isuma has wanted for a long, long time to use the Internet to connect the remote Arctic with people around the world, a way to bring people to Igloolik without the extreme expense and inconvenience of traveling here, as well as to allow Inuit to remain in their communities and out on the land without losing touch with the 21st century. One dream is a nomadic media lab/TV station out on the land connected to the Internet. It just has not been technically possible until now, thanks to a high-speed data satellite phone and wireless broadband in Nunavut, making remote, nomadic computing much less expensive. The goals with the educational website are to connect people to Inuit culture through the Internet and our films. We have been creating materials for the educational market for about 2 or 3 years (e.g. the Isuma Inuit Culture Kit), and the site is another step in this direction. The project employs an innovative technical infrastructure to deliver to the world priceless Inuit cultural content, such as interactive e-learning activities, video-on-demand, customizable teacher resources, and Inuktitut language lessons. It is a platform for North-South communication and collaboration. In addition to educating the public about Inuit culture, another goal of the site is to develop a youth and educational market for our films. (quoted in Ginsburg, March 2005)

The site was beautifully designed in every sense. The project had two teams, one in the Arctic at Igloolik and another in Montreal. In Igloolik, the team was made up of about 9 members: 3 videographers, 1 audio reporter, 1 photographer, and 3 writers who did the daily blogs, as well as 8 youth trainees from the community who were learning about media production. The Sila website presented a remarkable demonstration of how this technology might be successfully "indigenized" to help Inuit school kids, college students in New York, Maori colleagues in New Zealand, and many others, learn about their filmmaking, the Arctic, indigenous lives, missionization, and new ways of "understanding

media" (McLuhan, 1964) and its possibilities in the 21ˢᵗ century. Because of the site, the film will, no doubt, experience an upsurge in traffic when it opens at the Cannes Film Festival in 2006.

UsMob: Central Australia

A recent digitally-based project has been developed by activist lawyer and documentary maker David Vadiveloo in collaboration with Arrernte Aboriginal youth in living in Hidden Valley, a town camp outside of Alice Springs in Central Australia. Us Mob is Australia's first Aboriginal children's television series and interactive website. On the site, users interact with the challenges and daily lives of kids from the camp—Harry, Della, Charlie and Jacquita—following multi-path storylines, activating video and text diaries, forums, movies, and games that offer a virtual experience of the camp and surrounding deserts, and uploading their own video stories. The site, in English and Arrernte with English subtitles, was launched at the Adelaide Film Festival on February 25, 2005 and simultaneously on ABC TV and ABC online.[21]

The project had its origins in requests from traditional elders in the Arrernte community in Central Australia to David Vadiveloo, who first worked with that community as their lawyer in their 1996 historic Native Title claim victory. Switching gears since then to media activism, Vadiveloo has made six documentaries with people in the area, including the award-winning works *Trespass* (2002)*, Beyond Sorry* (2003) and *Bush Bikes* (2001). UsMob is the first indigenous project to receive production funding under a new initiative from the Australian Film Commission and ABC New Media and Digital Services Broadband Production Initiative (BPI); it received additional support from the Adelaide Film Festival, Telstra, and the South Australian Film Corporation.

The UsMob project was motivated by Vadiveloo's concern to use media to develop cross-cultural lines of communication for kids in the camps. [22] As he put it:

> After ten years of listening to many Arrernte families in Town Camps and   remote areas, I
> am trying to create a dynamic communication bridge that has been opened by the Arrernte kids of
> Alice Springs with an invitation extended to kids worldwide to play, to share, and to engage with

story themes that are common to all young people but are delivered through Us Mob in a truly

unique cultural and physical landscape. (quoted in Ginsburg, January 2005)

In keeping with community wishes, Vadiveloo needed to create a project that was not fictional. Elders

were clear: they did not want community members referred to as "actors"—they were community

participants in stories that reflected real life and real voices that they wanted heard. To accomplish that,

Vadiveloo held workshops to develop scripts with over 70 non-actor Town Camp residents, who were

paid for their participation. The topics they raised range from Aboriginal traditional law, ceremony, and

hunting to youth substance abuse and other Aboriginal health issues. Building bush bikes is the focus of

one of the two UsMob games, while the second one requires learning bush skills as players figure out

how to survive in the outback. Producer Heather Croall and Interactive Producer Chris Joyner were

integral partners for Vadiveloo. Apart from raising finance, they wrote the project together with

Vadiveloo; then, final scripts were written by indigenous screenwriter Danielle McLean. Camera work

was by Allan Collins, the indigenous award-winning cinematographer and Alice Springs resident. The

final project has been approved by traditional owners and the Indigenous organization, Tangentyere

Council.

In creating this project, Vadiveloo hoped to create a television series about and by Aboriginal

youth, raising issues relevant to them, as well as an online program that could engage these young people

to spend time online acquiring some of the skills necessary to be computer literate. He was particularly

concerned to develop an alternative to the glut of single-shooter games online and the constant diet of

violence, competition, and destruction that characterize the games they were exposed to in town. "When

kids play and build together," Vadiveloo explains, "They are learning about community and consequence

and that is what I wanted to see in the project" (quoted in Ginsburg, January 2005). And rather than

assuming that the goal is that Aboriginal children in Central Australia catch up to the other side of the

digital divide, based on someone else's terms, he wanted to help build a project that dignified their

cultural concerns. This is charmingly but emphatically clear in the first encounter with the UsMob home

page that invites you in but, as it would be if you visited them in Alice, notifies you that you need a permit to visit:

> Everyone who wants to play with us on the full Us Mob website will need a permit. It's the same as if you came to Alice Springs and wanted to visit me and my family, you'd have a get a permit to come onto the Town Camp. Once you have a permit you will be able to visit us at any time to chat, play games, learn about Aboriginal life and share stories.
>
> We love going out bush and we're really looking forward to showing you what it's like in Central Australia. We'll email you whenever we add a new story to the website. We really hope you can add your stories to the website cos we'd love to learn about your life too. [23]

UsMob and Hidden Valley suggest another perspective on the digital age, one that invites kids from "elsewhere" to come over and play on their side.

Raven Tales: Northwest Coast

Raven Tales: How Raven Stole the Sun (2004) is the first of a series of experiments in digital animation by Simon James (Kwakwaka'wakw) and Chris Klentz (Cherokee) that create new versions of centuries-old stories to be shown across Canada on that country's Aboriginal People's Television Network. This work reworks famous Northwest coast myths from Kwakwaka'wakw, the Squamish, and Haida peoples–in particular the raven trickster figure, along with eagle, frog, and the first humans. It includes voices ranging from well-known native actors such as Evan Adams of *Smoke Signals* (Chris Eyre, 1998) fame to the voice of Hereditary Chief Robert Joseph. Cutting across both centuries and generations, it uses the playful spirit of animation to visualize and extend the lives of these myths. These stories and the distinctive look of Northwest Coast design have been proven, as producer Simon James joked during the Q & A at the New York premiere of this work in the Fall of 2004, by "10,000 years of local market research" (quoted in Ginsburg, November 2005).

Spicing up these stark and complex traditional stories with some contemporary humor and the wonders of digital animation is always a risk. But clearly it was a risk worth taking, when the murky

darkness of the Myth Time is suddenly (and digitally) transformed from barren smoky grays to brilliant greens, the result of the Raven's theft of the gift of light and its release into the world.[24]

At the New York premiere, animator Simon James's father, a Kwakwaka'wakw artist and elder, came on stage with his drum, embellished with the distinctive raven design. Inviting other Native media makers who were present to join him on stage, he sang "Wiping the Tears" to remember those who have come before and are gone and to praise the work of this new generation. When Pam Belgarde, a Chippewa woman who had produced another work shown in the session, came up, he dressed her in the traditional black and red regalia, a stunning full-length button cape with appliqués of wild roses, and a regal fur hat. As he draped the cape across her shoulders, he explained: "When we meet someone we are honored to meet, we dress them to show that we are willing to go cold in order to keep our guests warm." Simon began to beat the drum and asked us to look at the empty seats in the theater and think of those who came before; the media producers on stage lowered their eyes. At the conclusion of his song, he addressed the audience and said, "All our ceremonies need witnesses. And as witnesses, we ask you to be part of that tradition, and go and share with others what you have seen today."

In each of these cases, digital technologies have been taken up because of the possibilities they offer to bring in younger generations into new forms of indigenous cultural production and to extend indigenous cultural worlds–on their own terms–into the lives of others in the broader national communities and beyond who can serve, in the way that Simon James expressed, as virtual witnesses to their traditions, histories and daily dilemmas.

<div align="center">**Conclusion**</div>

To return to the concern that motivated this article, I want to underscore the way that the term The Digital Age stratifies media hierarchies for those who are out of power and are struggling to become producers of media representations of their lives. It is an issue that is particularly salient for indigenous people who, until recently, have been the object of other peoples' image-making practices in ways that have been damaging to their lives. And unlike other minorities, questions of the digital age look different from the

perspective of people struggling to control land and traditions that have been appropriated by now-dominant settler societies for as long as 500 years.

In an effort to underscore what their work is about, I use the term *cultural activist* to describe the self-conscious way in which they are—like many other people—using the production of media and other expressive forms as a way not only to sustain and build their communities but also as a means to help transform them through what one might call a "strategic traditionalism" (to borrow from Bennett & Blundell, 1995). This position is crucial to their work but is effaced from much contemporary cultural theory addressing new media that emphasizes dislocation and globalization. The cultural activists creating these new kinds of cultural forms have turned to them as a means of revivifying relationships to their lands, local languages, traditions, and histories and articulating community concerns. They also see media as a means of furthering social and political transformation by inserting their own stories into national narratives as part of ongoing struggles for Aboriginal recognition and self-determination.

Increasingly, the circulation of these media globally—through conferences, festivals, co-productions, and the use of the internet–has become an important basis for nascent but growing transnational network of indigenous media makers and activists. These activists are attempting to reverse processes through which aspects of their societies have been objectified, commodified, and appropriated; their media productions and writings are efforts to recuperate their histories, land rights, and knowledge bases as their own cultural property. These kinds of cultural productions are consistent with the ways in which the meaning and praxis of culture in late modernity has become increasingly self-conscious of its own project, an effort to use imagery of their lives to create an activist imaginary. One might think of media practices as a kind of shield against the often unethical use or absolute erasure of their presence in the ever-increasing circulation of images of other cultures in general, and of indigenous lives in particular, as the indigenous position paper for the World Summit on the Information Society makes clear. At every level, indigenous media practices have helped to create and contest social, visual, narrative, and political spaces for local communities and in the creation of national and other kinds of dominant cultural imaginaries that, until recently, have excluded vital representations by First Nations peoples within their borders. The capacity of such representations to circulate

to other communities—from indigenous neighbors to NGOs—is an extension of this process, across a number of forms of mediation, from video and film to cyberspace (Danaja and Garde, 1997).

Indigenous digital media have raised important questions about the politics and circulation of knowledge at a number of levels; within communities this may be about who has had access to and understanding of media technologies, and who has the rights to know, tell, and circulate certain stories and images. Within nation-states, media are linked to larger battles over cultural citizenship, racism, sovereignty, and land rights, as well as struggles over funding, airspace and satellites, networks of broadcasting and distribution, and digital broadband that may or may not be available to indigenous work. The impact of these fluctuations can be tracked in a variety of places—in fieldwork, in policy documents, and in the dramas of everyday life in cultural institutions.

I explore the term The Digital Age because it so powerfully shapes frameworks for understanding globalization, media, and culture, creating the "common sense" discourse for institutions in ways that disregard the cultural significance of the production of knowledge in minoritized communities, increasing an already existing sense of marginalization. Rather than mirroring the widespread concern over increasing corporate control over media production and distribution, and the often parallel panic over multiculturalism (Appiah,1997), can we illuminate and support other possibilities emerging out of locally-based concerns and speak for their significance in contemporary cultural and policy arenas? Institutional structures are built on discursive frameworks that shape the way in which phenomena are understood, naturalizing shifts in support for a range of cultural activities. In government, foundations, and academic institutions, these frameworks have an enormous impact on policy and funding decisions that, for better or worse, can have a decisive effect on practice.

Other scholars who recognize, more generally, the significance of locally-situated cultural practices in relation to dominant models point instead to the importance of the productions/producers who are helping (among other things) to generate their own links to other indigenous communities through which local practices are strengthened and linked. For example, Rob Wilson and Wimal Dissanayake point to such processes as part of "an aesthetic of rearguard resistance, rearticulated borders as sources, genres, and

enclaves of cultural preservation and community identity to be set against global technologies of

modernization or image-cultures of the postmodern" (1996, p. 14). Indeed, simultaneous to the growing

corporate control of media, indigenous producers and cultural activists are creating innovative work, not only

in the substance and form of their productions, but also in the social relations they are creating through this

practice, that can change the ways we understand media and its relationship to the circulation of culture more

generally in 21st century.

Such efforts are evidence of how indigenous media formed over the last decades now find themselves

at the conjuncture of a number of historical developments: these include the circuits opened by new media

technologies, ranging from satellites to compressed video and cyberspace, as well as the ongoing legacies of

indigenous activism worldwide, most recently by a generation comfortable with media and concerned with

making their own representations as a mode of cultural creativity and social action. They also represent the

complex and differing ways that states have responded to these developments—the opportunities of media

and the pressures of activism—and have entered into new relationships with the indigenous nations that they

encompass.   I conclude on a note of cautious

optimism. The evidence of the growth and creativity of indigenous digital media over the last two decades,

whatever problems may have accompanied it, is nothing short of remarkable. Formations such as these,

working out of grounded communities or broader regional or national bases, offer an important elaboration of

what the digital age might look like, intervening in the "left behind" narrative that predominates. While

indigenous media activism alone certainly cannot unseat the power asymmetries which underwrite the

profound inequalities that continue to shape their worlds, the issues their digital interventions raise about the

politics of culture, are on a continuum with the broader issues of self-determination, cultural rights, and

political sovereignty, and may help bring some attention to these profoundly interconnected concerns.[25]

Indigenous media offer an alternative model of grounded and increasingly global relations created by

indigenous people about their own lives and cultures. As we all struggle to comprehend the remapping of

social space that is occurring, indigenous media offer some other coordinates for understanding. Terms such

as The Digital Age gloss over such phenomena in their own right or as examples of alternative modernities,

resources of hope, new dynamics in social movements, or as part of the trajectory of indigenous life in the 21st century. Perhaps it is time to invent new terms to remind us of the issues of power at work from a position that interrogates the hegemonic order implied in the language of the digital age.

References

Appiah, K. A. (1997, October). The multiculturalist misunderstanding. *The New York Review of Books 44*(15). Retrieved from http://www.nybooks.com/articles/article-preview?article_id=1057

Anderson, Jane and Kathy Bowrey.(2007) The Imaginary Politics of Access to Knowledge: Whose Cultural Agendas are Being Advanced? (forthcoming…..)

Bennett, T. & Blundell, V. (1995). First Peoples. *Cultural Studies* 9: 1-24.

Brooks, J. (2004, January 27). Digital Pony Express links up Cambodia, *The New York Times,* p. E1.

Castells, M. (1996). *The rise of the network society*. London: Blackwell.

Castells, M. (1997). *The power of identity: The Information Age*. London: Blackwell.

Castells, M. (2003). *The Internet galaxy: Reflections on the Internet, business, and society*. London: Oxford University Press.

Christen, Kim (2005) Gone Digital: Aboriginal Remix in the Cultural Commons. *International Journal of Cultural Property* 12 (315-344).

Christie, Michael (2005) Words, Ontologies, and Aboriginal Databases. In Cohen, Hart and Juan F. Salazar "Digital Anthropology." *Media Information Australia*, No. 116, August (52–64)

Cohen, Hart and Juan F. Salazar (2005) "Digital Anthropology." *Media Information Australia*, No. 116, August, (pp. 5 – 75)

Curran, J. & Myung-Jin P. (Eds.). (2000). *Dewesternizing media studies*. NY: Routledge.

Danaja, P. & Garde, M. (1997). From a distance. In C.E. Smith & H. Burke, (Eds.), *1997 Fulbright Symposium: Indigenous cultures in an interconnected world* (pp. 179-88). Precirculated papers.

Fabian, J. (1983). *Time and the Other*. New York: Columbia University Press

From the digital divide to the need for a worldwide solidarity movement. (2005). *Digital Solidarity Fund*. Retrieved January 1, 2006 http://www.dsf-fsn.org/en/02-en.htm.

Ginsburg, F., Abu Lughod, L. & Larkin, B. (2002). Introduction. *Media worlds: Anthropology on new terrain*. Berkeley: University of California Press.

Ginsburg, F. (2005, January). Rethinking the Digital Age. *Flow, A critical forum on television and film*, *1*(8). Retrieved http://jot.communication.utexas.edu/flow/?jot=view&id=528

Ginsburg, F. (2005, March). Move over Marshall McLuhan! Live from the Arctic! *Flow, A critical forum on television and film*, *2*(4). Retrieved http://jot.communication.utexas.edu/flow/?jot=view&id=779

Ginsburg, F. (2005, November). 10,000 Years of media flow. In *Flow, A critical forum on television and film*, *1*(4). Retrieved http://jot.communication.utexas.edu/flow/?jot=view&id=491

Glowczewski, Barbara (2005) Lines and criss-crossings: Hyperlinks in Australian Indigenous narratives. Cohen, Hart and Juan F. Salazar "Digital Anthropology." *Media Information Australia*, No. 116, August. Pp. 24-35

Klineneberg, E. & Benzecry, C. (2005). Introduction: Cultural production in a digital age. *Special issue of the Annals of the American Academy of Political and Social Science*, *597*(1), 6-18.

Landzelius, Kyra, ed (2006). *Going native on the net: Indigenous cyber-activism and virtual diasporas over the world wide web*. London: Routledge.

Latukefu, A. (2006). Remote Indigenous communities in Australia: Questions of access, information, and self-determination. In K. Landzelius (Ed.), *Going native on the net: Indigenous cyber-activism and virtual diasporas over the world wide web*. (1-42) London: Routledge.

Lu, Ming-te (2001). Digital divide in developing countries. Journal of Global Information Technology Management (4:3), pp. 1-4.

Markoff, J.. (2005, January 31). Taking the pulse of technology at Davos. *The New York Times.* Retrieved http://cel.media.mit.edu/press/mirrors/NYT100DollarPC.html

Massing, M. (2005, December 1). The end of news? *The New York Review of Books*, *52*(19). Retrieved http://www.nybooks.com/articles/18516

McLuhan, M. (1964/1994). *Understanding media: The extensions of man*. [Reprint of 1964 edition]. Boston: MIT Press.

Michaels, Eric

Norris, P., Bennett, W. L., & Entman, R. (2001). *Digital Divide: Civic engagement, information poverty, and the Internet worldwide*. Cambridge: Cambridge University Press.

Prins, Harald (2001) Digital Revolution: Indigenous Peoples in Cyberia." In William A.Haviland, Cultural Anthropology. (10th.ed.). Ft. Worth: Harcourt College Publishers, (Pp. 306-08)

Prins, Harald (2002) Visual Media and the Primitivist Perplex: Colonial Fantasies, Indigenous Imagination, and Advocacy in North America. In F. Ginsburg, L. Abu-Lughod and B. Larkin, *Media Worlds: Anthropology on New Terrain.* (pp. 38-74) Berkeley: University of California Press

Rickard, J. (1999). First Nation territory in cyber space declared: No treaties needed. *CyberPowWow: An Aboriginally determined territory in cyberspace*. Retrieved http://www.cyberpowwow.net/nation2nation/jolenework.html

Salazar, Juan (3005) Digitising Knowledge: Anthropology and New Practices of Digitextuality" in Cohen, Hart and Juan F. Salazar "Digital Anthropology." *Media Information Australia*, No. 116, August , pp. 64-74.

Shirky, C. (2002, October 10). Sorry, Wrong Number. *WIRED 10/*10. Retrieved from http://www.wired.com/wired/archive/10.10/view.html?pg=2

Technology and development (Editorial). (2005, March 10). *The Economist*. Retrieved from http://www.economist.com.

Indigenous position paper for the World Summit on the Information Society (WSIS) (2003, December). *Indigenous peoples and the Information Society* [Draft version]. Geneva. Retrieved from http://www.un-ngls.org/WSIS%20-%20Indigenous-PositionPaper-EN.rtf

Van Dijk, Jan A G M (2005) The Deepening Divide: Inequality in the Information Society. NY: Sage

Verhovic, S. (2000, November 3). Bill Gates turns skeptical on digital solution's scope. *The New York Times*, A1-A18.

Warschauer, Mark (2003*) Technology and Social Inclusion: Rethinking the Digital Divide*. Boston: MIT

> Press

Wilson, R. & Dissanayake, W. (1996). Introduction. In R. Wilson & W. Dissanayake (Eds.),

> *Global/Local: Cultural Production and the Transnational Imaginary* (pp. 1 -20). Durham: Duke

> University Press.

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Notes

[1] http://www.dsf-fsn.org/cms/component/option,com_magazine/func,show_magazine/id,11/Itemid,194/lang,fr/

[2] Despite the initial enthusiasm around the Digital Solidarity Fund, particularly concerning the possibility of alternative funding models, it has not maintained as robust a presence in terms of challenging the digital power structures as some had hoped. I am grateful to Leo Hsu for discussions on this front.

[3] For information on that the 2005 WSIS, see http://www.itu.int/wsis/index-p1.html.

[4] As the site's founders explain at http://www.cyberpowwow.net/about.html, "The CyberPowWow project, conceived in 1996, is part website and part palace—a series of interconnected, graphical chat rooms which allow visitors to interact with one another in real time. Together, the website and palace form a virtual gallery with digital (and digitized) artworks and a library of texts."
     "The first CyberPowWow was the launch of a Web page dedicated to issues of contemporary Native art. This launch, which happened on Saturday, April 5, 1997, took place in cyberspace as well as two actual physical spaces: Galerie OBORO, in Montreal, Quebec, and Circle Vision Arts Corporation in Saskatoon, Saskatchewan. On that day, people were invited to check out the new Web site, which featured new work by artists Melanie Printup Hope, Bradlee LaRocque and Ryan Rice and by writers Audra Simpson, Paul Chaat Smith and Skawennati Tricia Fragnito. All the artists and writers were on-line to talk about their work. During the on-line chat, CPW participants realized that they liked hanging out in a Palace with other artists, writers and thinkers and and decided that it would be worthwhile to create a Palace of our own. The CyberPowWow Palace will house a virtual gallery, library, and performance space and function as a place to meet in Cyberspace to chat about the main issues on our minds. The Web page remains as an introduction, archive and how-to document." http://www.cyberpowwow.net/cpw.html

[5] See the website at http://www.odn.net.au/.

[6] http://www.isx.org.au/projects/1099550194_11349.html

[7]I came of age in the time of analog video which very much influenced my ideas of the cross-cultural and democratizing possibilities of media. The sense of a changing media era at that time was marked in popular culture by the 1979 new wave hit, "Video Killed the Radio Star" by the British group The Buggles, invoking the eclipse of the golden days of radio through the character of a singer whose career is eclipsed by the arrival of television.

[8] Indeed, it was in the "analog era" that Eric Michaels, working with remote-living Aboriginal Australians in the settlement of Yuendumu, who felt themselves threatened by the incursion of satellite television in the late 1980s, helped to "invent Aboriginal television" using small-format inexpensive video.   Michaels wrote about the way kinship shaped the organization of production and the significance of that to the legitimacy of video texts, the restrictions to the circulation of certain kinds of knowledge in Aboriginal culture that reframed western ideas valorizing free flows of information, and the cultural taboos on seeing images of the dead. His work provided an influential and widely circulated cultural critique in the 1980s and had a salutary effect on assumptions about media practices at that time. That critique now seems lost in the current triumphalist rhetoric of new media, despite the efforts of indigenous media makers and activists to be heard on their own terms.

[9] Clearly these statistics are already out of date, but even if this number changed to 50%, it changes the sense that the whole world has joined the digital age. Of course, the fact that certain portions of the world are so deeply engage with new digital technologies has consequences for those who do not, an issue raised primarily through a developmentalist perspective in the digital divide debates. For discussion of these statistics at the 2005 World Economic Forum, see http://www.weforum.org/site/knowledgenavigator.nsf/Content/New+Technologies. For an excellent discussion of the complexity of accounting for telephony statistics, see Shirky (2002).

[10] One of the outstanding exceptions to this tendency is the ethnographic study of the uptake of the internet by people in Trinidad by Daniel Miller and Don Slater, entitled The Internet: An Ethnographic Approach (Berg 2001)

[11] The global digital divide is a term used to describe "great disparities in opportunity to access the internet and the information and educational/business opportunities tied to this access. Unlike the traditional notion of the "digital divide" between social classes and urban and rural areas, the "global digital divide" refers to the fact that developed nations with the resources to invest in and develop ICT infrastructure are reaping enormous benefits from the information age, while developing nations are trailing along at a much slower pace. This difference in rates of technological progress is widening the economic disparity between the most developed nations of the world and developing ones, characterized as falling along what is sometimes called the north-south divide of "northern" wealthier nations and "southern" poorer ones. See http://en.wikipedia.org/wiki/Global_digital_divide for helpful elaboration of these points.

For recent helpful critiques/discussions of the issues circulating via the term the digital divide, see Norris (2001), van Dijk (2005), and Warschauer (2003).

[12] The system, developed by First Mile Solutions, based in Boston, uses a receiver box powered by the motorcycle's battery. The driver need only roll slowly past the school to download all the village's outgoing e-mail and deliver incoming e-mail. Newly-collected information is stored for the day in a computer strapped to the back of the motorcycle.

[13] Thanks to Leo Hsu for passing this reference on to me.

[14] Thanks to B. Ruby Rich for this reference.

[15] My citation of Bill Gates – one of the world's wealthiest men who has only recently adopted such a stance – is meant to some extent as a provocation, but also to point out that there are indeed different positions within the world of the digerati that are worth taking seriously for those of us interested in finding a wedge in the discursive and political fields.

[16] For other examples, see Landzelius (2006), Prins (2002) and Christen (2005)

[17] See their website at http://www.isuma.ca.

[18] Nunvut is governed by a premier and an advisory council of eleven elders, the Inuit Qaujimajatuqangit, whose function it is to help incorporate Inuit culture and traditional knowledge into the territory's political and governmental decisions.

[19] See http://www.atanarjuat.com for the film's website.

[20] See http://sila.nu/swf/journal and http://www.sila.nu/live. The website is financially supported by Telefilm Canada's New Media Fund, Government of Nunavut (Dept of Sustainable Development), Nunavut Community Economic Development, Heritage Canada (Canadian Studies Program), National Research Council (Industrial Research Assistance Program). NITV (Nunavut Independent Television Network) is a collaborating partner, along with sponsorships from Ardicom Digital Communications, SSI Micro, and Stratos Global Corporation.

[21] For website see http://www.usmob.com.au.

[22] Another exemplary internet projects addressing the needs of Aboriginal youth in the Alice Springs area is http://www.deadlymob.org/

[23] UsMob web site at http://www.abc.net.au/usmob.

[24] *Raven Tales* premiered in Los Angeles in 2005 at the National Geographic's All Roads Film Festival (http://www.nationalgeographic.com/allroads), which gave the project completion funds, the only digital animation in that project. It was slated to air on Canada's APTN aboriginal TV network in 2005.

[25] My thanks to Jason Toynbee for his helpful reminder to keep those connections alive.