Introduction
This paper is an exploration of the relationships between First Nations and library and archival studies. It looks at the concepts and values that libraries and archives embody rather than the institutions themselves. The role of libraries and archives in society is complex; some of the complexities are accentuated when looking at First Nations communities.

This paper will explore the concept of knowledge systems within First Nations contexts, including changes over the past one hundred and fifty years; look at some issues in cross-cultural communication in British Columbia; and explore some metaphors and visions for First Nations information management.

Knowledge systems
Some of the ways in which First Nations and non–First Nations people "know" the world are profoundly different. The term "First Nations knowledge systems" refers to the ways in which knowledge, records, ideas and information are generated, disseminated and maintained within First Nations communities and nations. These systems are ancient and rooted in complex oral cultures, and are often called "oral traditions" or "oral histories". Human memory and 'real–time' interpersonal communication is the basis for First Nations information systems instead of physical recording objects and written languages (1). This is the most obvious difference between First Nations and Western information systems. They also differ in the ways through which they authenticate and validate information and records -- the ways they become meaningful and reliable. The bodies of knowledge they hold and to which they have access -- what library studies usually talks about as the "content" -- are different. Accordingly, the ways they manage, organize, use and develop these knowledges differ. While there have been dramatic changes to First Nations knowledge systems since European colonization, I use the term to encompass both pre–contact and contemporary ways of maintaining knowledge. First Nations information systems today as in the past depend upon traditional values, protocols, principles and ways of maintaining knowledge.

Rather than explore the information system of a single First Nation, this paper looks at First Nations knowledge systems collectively. Although each First Nation developed its own independent information system, First Nations are interconnected and information has been shared between them for centuries. Similarly, this paper will look at the information professions of archives, libraries and museums as a group rather than focus on any individual profession. While there are significant differences between the principles underlying archives, libraries and museums, these professions and institutions are also interconnected.

Because this paper will look to make connections between archival theories and First Nations knowledge systems, an overview of some archival concepts is necessary. Archival theory distinguishes between materials which have information, and those which are records. The definition of a record from the Rules for Archival Description is "a document made or received in the course of the conduct of affairs and preserved" (2). Records are not created to be historical documents, but in order to do other things -- "the course of conduct of affairs." Part of the reason they have historical value is that they are closely connected to those events and actions -- those affairs. Their evidentiary value rests upon the context and connections to the
actions that brought them into being, as well as their connections to other records, particularly the archival fonds, which are "the whole of the records of a creator [person or administrative entity]" (3). The care of these contexts and connections are at the centre of archival work, and are as important as the physical care of the archival materials themselves. Records are the means through which people "give an account of one's actions" (4) and demonstrate whether they have acted responsibly with the authority that has been delegated to them (5). Archival theory recognizes the need to evaluate the authenticity of records within the context in which the records were created. The juridical context is the legal and administrative environment -- the rules and organization -- in which records are created. This context is very important, since record-keeping systems differ between countries and it is only within the context that a record was created that one can determine if it is authentic.

First Nations knowledge systems

Very few writers talk about First Nations or indigenous knowledge systems. Some researchers write about indigenous knowledge, local knowledge, "Traditional Ecological Knowledge" (TEK), or mythology, and tend to focus on what is known. Others write about oral traditions or indigenous education, looking at how knowledge is maintained or transmitted. Several descriptions written by indigenous authors discuss their culture's information systems in terms of specific Western academic disciplines. Here are examples which connect indigenous knowledge to history, law, psychology and science. Linda Smith, discussing Maori knowledge and Western history writes:

For indigenous peoples, the critique of history is not unfamiliar . . . contested stories and multiple discourses about the past, by different communities . . . is very much a part of the fabric of communities that value oral ways of knowing. These contested accounts are stored within genealogies, within the landscape, within weavings and carvings, even within the personal names that many people carried. The means by which these histories were stored was through their systems of knowledge. Many of these systems have since been reclassified as oral traditions rather than histories (6).

Smith criticizes the use of the phrase "oral traditions" because it implies that this type of knowledge has less validity than Western forms of history which are dominated by concepts of literacy and the methods of ensuring authenticity for written materials. (Others prefer the term oral traditions, because the knowledge systems contain more than historical knowledge). Gitksan and Wet'suwet'en Chiefs Gisday Wa and Delgam Uuukw describe how history is maintained in their information systems.

In Gitksan and Wet'suwet'en society the Chiefs are responsible for their part of the society's history and for knowledge of their particular territory. However, Chiefs are reluctant to answer questions about histories or places that properly belong to someone else. It is as if to speak of another's territory were to constitute a trespass. As a total system of knowledge, therefore, Gitksan and Wet'suwet'en facts are shared out. The totality of the historical record exists in the minds of the Chiefs that feast together, those feastings together being those who historical paths have crossed. In this way, the record of Gitksan or Wet'suwet'en history exists in its totality in the minds of those whose duty it is to remember it. Each Chief tells his history in the living context of the knowledge in each others' minds. Thus, when a Chief describes the events that took place long ago, events that he or she could not possibly have witnessed, these can be told as established truths by virtue of having been tested and validated at a succession of narratives. . . . Chief Lelt . . . insisted that the things he was saying were true because they had been witnessed and acknowledged (7).

The quote above describes part of the juridical–administrative context within Giksan and Wet'suwet'en societies. The phrase regarding the "minds of those whose duty it is to remember it" is similar to the concept of "competence" within archival theory: a "clearly defined sphere of functional responsibility" (8). Government agencies have a duty to keep an accurate record of the activities for which it is responsible.
The connection of knowledge and physical place is an element which differentiates oral from written knowledge. From his experience recording Western Apache place names for a cultural geography project, Keith Basso writes:

> For Indian men and women, the past lies embedded in features of the earth—which canyons and lakes, mountains and arroyos, rocks and vacant fields—together endow their lands with multiple forms of significance that reach into their lives and shape the ways they think. Knowledge of places is therefore closely linked to knowledge of the self, to grasping one's position in the larger scheme of things, including one's own community, and to securing a confident sense of who one is as a person. . . . The people's sense of place, their sense of tribal past, and their vibrant sense of themselves are inseparable intertwined. Their identity has persisted (9).

This connection is manifest in many aspects of indigenous knowledge. Extending the concept of place to environment (place and nature together), Couture describes indigenous knowledge in relation to Western psychology:

> central to native knowledge is the concept of a direct experience with nature, the principles of spiritual immanent in creation, in direct relationship with Nature. In a word, behavioral science in general has not yet developed a "psychological geology" to reveal those underlying activities which shape the mind's topography. A pluridimensional approach is needed if we are to understand Native mind and knowledge, and thereby discern the roots of Native identity and survival (10).

Gregory Cajete describes the breadth of indigenous knowledge in his discussions of "Native science."

> Native science is a broad term that can include metaphysics and philosophy; art and architecture; practical technologies and agriculture; and ritual and ceremony practiced by Indigenous peoples past and present. More specifically, Native science encompasses such areas as astronomy, farming, plant domestication, plant medicine, animal husbandry, hunting, fishing, metallurgy, and geology—in brief, studies related to plants, animals, and natural phenomena. Yet, Native science extends to include spirituality, community, creativity, and technologies that sustain environments and support human life. It may even include exploration of questions such as the nature of language, thought, and perception; the movement of time and space; the nature of human knowing and feeling; the nature of human relationship to the cosmos; and all questions related to natural reality. Native science is the collective heritage of human experience with the natural world; in its most essential form, it is a map of natural reality drawn from the experience of thousands of human generations. It has given rise to the diversity of human technologies, even to the advent of modern mechanistic science. In profound ways Native science can be said to be "inclusive" of modern science, although most Western scientists would go to great lengths to deny such inclusivity. . . . When speaking of Indigenous or Native science, one is really talking about the entire edifice of Indigenous knowledge (11).

Critical elements of First Nations knowledge systems

The descriptions mention several elements which distinguish First Nations from Western information systems. Other elements, such as the way that knowledge is embedded in language, are also important in Western knowledge systems. First Nations information systems are wholistic (12) and based on awareness of the interconnectedness of all things (13) and involving all aspects of human life including language, education, spiritually, governance, art, tradition, technology, music, use of land, and ceremony (14). Aboriginal spirituality is an aspect of all traditional First Nations knowledge, for the spirit world is the source of knowledge (15), but also the authority for it (16). First Nations information systems are based on orality: the ability to create and remember spoken language, rather than literacy: the ability to create and use written language (17). The information is not objectified — entrusted to physical objects -- but held within the living minds of all people, particularly those who are recognized
as elders. They depend, as all oral cultures must, upon interpersonal transmission of culture – upon extended families, intergenerational communication, storytelling, education, and apprenticeships. The information, knowledge and wisdom are all embodied in people. Objects and more recently writings are part of First Nations information systems but they are not the foundation (18).

Verna Kirkness advocates for stronger support of aboriginal language retention programs, since "Language is the principle means whereby culture is accumulated, shared and transmitted from one generation to another" (19). Rocky Wilson uses electronic communication as a metaphor to describe the effect of the loss of aboriginal languages within the last two generations of aboriginal children: it as though the transmitters are still working but the receivers have been taken away so there is no way to receive the messages (20). The syilx language is described as "carr[ying] the teachings of a very old civilization with thousands of years of knowledge of healthy living on this land" (21). Special forms of language are also an integral part of information systems -- stories, myths, proverbs and narratives (22). The knowledge is embedded in the language -- not only in the texts but also within the meanings and interconnectedness of the words and the grammar and within the semantics -- the deeper meanings, the archetypes, etymology and symbols. Many of these symbols also had graphic or physical forms, such as in the art work, totem poles, regalia, and family crests (23).

Shirley Sterling writes about her grandmother's basket design, the four-sided star as "symboliz[ing] star mythology which provides direction literally and metaphorically in the quest for knowledge" (24).

The knowledge is also deeply embedded in and organized by physical and cultural places. Information and knowledge are integrated into ceremony and ritual -- daily rituals, seasonal activities and public events such as potlatches and sundances. Potlatches and feasts are, among other things, functional analogies to vital statistics and public records offices which record important family and public events such as births, deaths, naming and successions. At these events, public records and historical accounts are remembered, told, witnessed and validated. Spiritually, these events also state and renew people's relationships with other families and with nature (25). Stories are told, songs are sung, and dances are performed publicly and witnessed by the guests in order to validate the host family's ownership of these intellectual properties (stories, songs and dances) as well as the lands and resources to which they are linked. These information systems are dynamic (26); their authenticity does not depend upon being static, frozen or unchanging as the authenticity of written records does, but upon continual renewal. It is in this renewal and continuing validation that the information becomes reliable enough for people act upon.

Colonization and First Nations knowledge systems

The process of colonization has been one of the most powerful forces affecting interaction between First Nations and Western information systems. It was a guiding theme for discussing contemporary indigenous knowledge at a talking circle of several members of the United Nations Working Group on Indigenous Populations held in Saskatoon 1996 which resulted in the publication of Reclaiming Indigenous Voice and Vision (27). Policies of colonial and subsequent governments designed to facilitate settlement and assimilation of indigenous populations attacked many elements critical to First Nations information systems. Since colonization, indigenous groups have lost the ability to determine the direction of the growth and maintenance of their own knowledge systems, since so much of their energies have been required to respond directly to colonization.

Colonization has led to depopulation and displacement from land and resources due to military action, other violence, environmental disasters and epidemics. Through the 1800s, academic researchers estimate a population loss between 62% and 90% for First Nations along the coast of British Columbia. (28) The loss of knowledge over that time must have been immense (29). Since place is a part of how information is organized in oral traditions, the loss of access to traditional lands and damage to the environment also disrupted traditional information management at a fundamental level. The economic disruption that resulted from this dislocation forced people to focus on physical survival (30), limiting the time and resources they had for maintaining and creating knowledge.
Government assimilation policies and practices, from colonial governments continuing through to federal, provincial and municipal governments, directly attacked specific elements of the information systems. These policies and actions include the creation of the reserve system, band governance systems, residential schools, and legislation such as the Indian Act which limited participation of aboriginal people in many aspects of Canadian society. Describing the administrative and cultural context which led to the development of residential schools, Noel Dyck wrote:

> Adopting an approach that has been identified as "coercive tutelage," federal authorities began to act on the presumption that Indians did not know and perhaps could not know what was in their best interests, and would therefore need to be subjected to a regime of paternalism under which they would be stripped of civil, economic and cultural rights and subjected to bureaucratic direction. This racist perspective permeated the mandate of the Department of Indian Affairs to "solve" the so-called "Indian problem" and supported the operating assumption within federal government circles that Indians themselves were the source of the "problem." In consequence, federal Indian administration set out to rid Indians of their languages, cultures and social identities. A set of specialized institutions, administrative practices and regulations were created to transform Indians from members of Aboriginal cultures and communities into isolated individuals who could be readily assimilated into the new society with little or no lingering trace of their cultural identity. . . . The residential school was the key institution for promoting assimilation (31).

Chrisjohn, Young and Maraun note that the "forced transfer of children" with the intent of eliminating a specific group of people is genocide according to the United Nations Genocide Convention (32) which was signed by Canada in 1949. The 1884 amendments to the federal Indian Act included the prohibition against potlatching and practice of traditional public ceremonies (33). Much of the associated ceremonial objects and regalia were removed from the communities -- destroyed, sold, stolen, confiscated or hidden (34). Art and curio collectors as well as museum and university researchers actively sought and took these objects out of the communities. "Salvage anthropology" was the dominant approach to anthropological fieldwork at the turn of the century (35), which developed in response to the presumed end of Native people and cultures. "Salvage anthropology" documented activities and collected cultural objects for museums with the intent of preserving a record of Native cultures. These objects and art comprised much of the tangible and visible aspects of the information systems; their loss was significant.

Forced attendance of children at residential schools created personal anguish and disrupted many critical elements of First Nations information systems. Residential school attendance interrupted intergenerational communication; it separated children from their families, traditional lands, community practices, traditions and cultural activities. (36) Residential school policy suppressed aboriginal languages (37); several have a critically small number of fluent speakers (38). English replaced aboriginal languages as the language of education, work and home; it also provided most First Nations people with a common language. The curriculum was based on literacy and vocational skills; orality was suppressed. The religious doctrine attacked aboriginal knowledge along with aboriginal spirituality. The psychological and emotional pain of grief over the relatives and friends lost to disease, along with grief of loss of children to residential school or separation from home and parents has been debilitating.

This is a significant fact in itself, but it also has implications for knowledge systems. Within oral traditions, people are the 'media' as well as the custodians and users of information; the emotional and mental health of people are also integral to the knowledge systems. At one point, the federal government forced enfranchisement of status Indians who had a grade three education or higher; those individuals were legally defined as "people" and therefore legally were no longer "Indians" and could not be members of any Indian Band; with the loss of their band membership they could no longer live with their families in their own communities. Government officials and missionaries also worked to marginalize the knowledgeable people -- the culture-bearers -- in the communities. Elected band councils were created within the Indian Act to displace traditional hereditary leadership. (39) Medical doctors in aboriginal
communities promoted assimilation as well as provided medical care: "Missionaries and government officials both hoped that evidence of Euro–Canadian medical superiority would work to disrupt the relationship between Aboriginal people and their leaders, especially traditional healers" (40).

As these governmental practices disrupted the information systems within First Nations communities, other forces undermined their ability to represent themselves within Canadian society. "Indian experts" appeared in Western institutions such as universities (41) and museums (42), basing their authority upon emerging disciplines such as anthropology and archaeology. Based on an assumed position of objectivity, they became recognized by Canadian society as knowledgeable experts on aboriginal culture, while the aboriginal culture–bearers become their sources of data -- their 'informants.' Indigenous people, stating the value and validity of their cultural knowledge, emphasize the importance of elders: "When an elder leaves us, a whole library burns down" (43). Within information studies, this statement is important but does not go far enough. People are "not containers of brute fact" but the oral tradition's equivalent of archivists, libraries and museum professionals. They do not wait to be used, as the collections do, but are active in gathering, organizing, using, maintaining and making meaning out of the information.

A statement in The Circle Game about First Nations in general essentially summarizes the effects of colonization on First Nations information systems: "if residential schools were not completely successful in destroying First Nations, they did succeed in disrupting them" (45). First Nations people and communities responded to colonization in many ways. There are political, administrative and social responses. One approach was isolation: some objects were hidden; potlatches and other feasts were conducted in secret; and some knowledges are not shared with outsiders. At the same time, many leaders were involved with growing international indigenous networks. Oral traditions continue in families and in classroom storytelling. Another approach is documentation: use of writing, photography, sound and video recordings is widespread; the need to document "the heritage, traditions, achievements, and wisdom of Native American cultures" was emphasized in the U.S. National Commission on Library and Information Services report, Pathways to Excellence (46). Yet another approach is education: cultural knowledge is incorporated into all levels of education, such as language classes for adults and elementary school children. Another is art, including visual, performing and literary arts. Native authors are writing fiction, poetry, and children's books. Aboriginal scholars use community and academic research as forms of inquiry and forms of expression. First Nations communities have cultural centres, resources centres, archives, libraries, museums and heritage parks. Documentary film and video; newspapers; email listservs; radio and television are now part of the knowledge systems as well. Technology itself has not disrupted First Nations knowledge systems. As Steven Leuthold writes, "The stereotypical idea that Indians object to photographs for their own sake is misleading. Writing of early attempts by whites to photograph Indian religious ceremonies, the noted Native author Leslie Marmon Silko states that the actual source of Indians' distrust was---and remains---the photographer, not the tool" (48). First Nations knowledge systems are still based on oral traditions, but are now hybrid oral/visual/written/electronic systems.

First Nations in British Columbia

Information issues affect all crises and concerns facing First Nations in British Columbia. There almost two hundred officially–recognized Indian Bands in British Columbia (49), each facing unique but related information challenges. The question of 'what is a First Nation?' is not simple either. The federal Indian Act defines "bands" and "tribal councils" and established the processes for having membership in these legal entities established, recognized or lost. These legal entities and their land bases differed from the Nations which pre–dated the Indian Act, as did the processes regarding membership. For example, membership was traditionally inherited from mothers or both parents in many First Nations, but the Indian Act restricted this inheritance to the father's children, and women lost their membership if they married someone from outside their band. The Indian Act categorized First Nations individuals into "Status Indian, "Non–Status Indian," "Métis" and "Inuit;" with recent changes there are now sixty–four legal categories of First Nations individuals. Some First Nations leaders have said that the bands established by the federal government included people from several First Nations, while others have said that their First Nations were separated between several bands in the same
Anthropologists and linguists group aboriginal peoples differently than the Canadian government, using observations about linguistic and cultural similarity as their basis. The classification system initially developed by anthropologist George Murdock is used for several bibliographic tools, including the Bibliography of Native North America (50) and the Human Relations Area Files (51). These classifications are generally based on analysis of linguistic elements or cultural traits, rather than on the people's own names and self-identity. Language is an integral aspect of any knowledge system; worldview and cultural knowledge are embedded in language. Many concepts are never translated out of their language of creation; the loss of any language can be seen as the loss of that knowledge to humanity. Many First Nations languages are considered to be endangered. There are twenty-five language families in North America; a fifth of them are in British Columbia. (52) The Museum of Anthropology's First Nations Map (53) does endeavor to use the same names that the people themselves use. (The boundaries do not relate to political boundaries or traditional territories, but are an indication of geographic areas where the languages are spoken). The linguistic research represented on this map has identified thirty-two First Nations languages in British Columbia, and have grouped twenty-nine of them into five language families (54). Three are considered isolates. The differences between languages in the same family can be as great as that of English, Danish and Hindu which all belong to the IndoEuropean language family. Languages from different families are as different as Korean and Spanish. 

Endangered languages and the associated loss of cultural diversity and cultural knowledge is an international concern. The worldview and wisdom of every culture is embedded in its language; loss of language indicates loss of knowledge. Language and cultural knowledge are important 'information assets' (55). Care of these 'information assets' -- in a meaningful and authentic manner -- is one of the most significant information challenges facing First Nations in BC. It is unlikely that this could happen without healthy First Nations communities, or the maintenance of First Nations knowledge systems. As mentioned earlier, education and documentation are the approaches used to maintain cultural knowledge. Resources in most First Nations communities are scarce, and information management and record keeping must compete with other basic infrastructures such as health care and housing for funds.

Just as there are tensions between use and preservation of information in printed form, there is tension between sharing and protecting information in oral traditions. As expressed at the Protecting Knowledges conference in 2000, there are multiple concerns regarding what "protection" means including protection from commodification, misrepresentation and inappropriate use. Removing cultural knowledge from its cultural context can separate it from whatever makes it meaningful and reliable. For example, Greg Sarris describes difficulties encountered by a non–Native teacher who wanted to bring cultural content into her classroom through traditional stories: she used published versions of the stories written by anthropologists, which lacked important elements of context, including the storytellers' names. The students, unsure how to make sense of the decontextualized stories, were either disinterested or hostile to them (56).

Issues related to the "digital divide" occur in First Nations communities. Political, social, cultural, geographic factors, literacy and educational levels make access to outside information more problematic. James May wrote that "We have poor access to information from others which could benefit us," and argued that this was one of "two major information problems . . . in Indian America" (57). Several recommendations from the U.S. National Commission on Library and Information Services' Pathways to Excellence: Report on improving Library and Information Services for Native American Peoples relate to improving access, specifically through improving Tribal Library collections, improving community access to existing services and service agencies, and use of "newer information network technologies" (58). Literacy is a barrier to many information services (59). Many First Nations people in British Columbia do not have access to public library services (60).

Maintaining knowledge as a cultural legacy is a challenge; maintaining it in a way which both preserves its authenticity and permits it an opportunity to be effective within cross-cultural
contexts is much more complex. James May's second major information problem in *Indian America* is that "Others have little accurate information about us from our perspective" (61). There are increasing pressures on British Columbia First Nations to document knowledge from oral traditions into written or other physical media. These pressures make it more difficult to use isolation as a means to protect the integrity of cultural knowledge. Participation in provincial government resource management processes is an example of those pressures. The Canadian Constitution recognizes that aboriginal rights existed before Canada and that they continue to exist today. Many aboriginal rights regard the 'occupation and use' of land; provincial and federal governments are obligated to avoid infringing aboriginal rights without "justification." (62) This obligation affects government authority regarding permits for land-based development. To meet this obligation, the provincial government wants information regarding aboriginal land use for thousands of places which are being considered for development, in forms which are foreign to First Nations. Within most First Nations, this information is not held centrally, but with families and experts. Resource management processes are the driving force behind large research projects, creating immediate needs for information for First Nations and other levels of government.

Apart from legal requirements for this information, similar information is also needed to try to balance environmental, social, economic, cultural and health concerns. As a result, information and knowledge which was held exclusively within the oral tradition and by First Nations elders and traditional bearers have been written down and incorporated in computer mapping programs called geographic information systems, (GIS), and included in government reports and documents. In most cross-cultural situations, differing approaches to assessing the value of information -- such as differing criteria for authenticity, reliability, validity, relevance and usefulness -- affect people's ability to communicate and ultimately to find solutions to complex and urgent problems. The problems between First Nations and the governments of British Columbia and Canada affect everyone in Canada, not only aboriginal people. The consequences of government decisions regarding these concerns will last for generations; it would be very beneficial for everyone if they were informed decisions.

Western perceptions of First Nations knowledge

Historically, assimilation and appropriation have gone hand in hand; colonial societies have taken ideas and technology from indigenous societies which were considered useful, while at the same time suppressing and attempting to replace other aspects of culture that were considered uncivilized or strange. This could be considered a large scale version of cultural data mining. Assessments of what was worth keeping were culturally based, and were generally linked to concepts such as civilization and progress. These concepts have historical, philosophical, artistic and literary dimensions which reinforce each other. Information issues, and in particular the symbolic power of written language (including literature and historical documents), were central to these themes. Peoples without a written language were assumed to be incapable of long-term memory or accumulation of knowledge and therefore to be trapped in a child-like understanding of the world. This assumption can be stated as a theory about information: intergenerational transmission of information is not possible beyond one or two generations without a writing system. This theory was used to justify the creation of laws, policies and practices which treated First Nations as incapable of adult thought or responsibility. What was admired about the "noble savages" wasn't that they had achieved nobility, but that they had not been corrupted by the evils that came with civilization.

*Savage*, when used by [Canadian poets] Dryden [in the nineteenth century] and Mair [in the seventeenth], meant innocent, virtuous, and peace-loving, free of the guile and vanity that came from living in contemporary society. I don't think I have to argue the fact that many non-Natives continue to believe that Indians have an innate nobility of character which somehow derives from their long connection with the American continent and their innocence of industrial society (63).

The growing number of research projects on indigenous knowledge in British Columbia, particularly about aboriginal understanding and use of the land and environment, would indicate that there is more recognition of the value of those knowledges, although it is often seen as familiarity rather than real understanding or knowledge. However, variants of the "noble savage" stereotypes are very persistent. In 1991, several Gitksan and Wet'suwet'en
Hereditary Chiefs asked the British Columbia court to recognize their aboriginal title and rights; Chief Justice McEachern wrote the following in his Reasons for Judgement in Delgamuukw v. British Columbia,

*I do not accept the [Gitksan and Wet'suwet'en] ancestors "on the ground" behaved as they did because of "institutions." Rather I find they more likely acted as they did because of survival instincts which varied from village to village (64).*

This judgement, and the lengthy Reasons for Discussions (65) which accompanied it, prompted much discussion within First Nations, legal and academic circles about the nature of history and of aboriginal oral history. Among other things, the judgement was criticized for treating historical documents as unquestionably factually accurate -- as "[the historians'] marvellous collections [of archival, historical documents] which largely spoke for themselves" (66) -- rather than records which grow out of and reflect the context which created them (67). The judgement was appealed in the British Columbia Court of Appeal (68) and in the Supreme Court of Canada (69). In 1997, the Supreme Court of Canada ruled that the trial court decision by Chief Justice McEachern was in error in its failure to consider oral tradition; so flawed that it could not be dealt with in the appeal and thus a new trial would be necessary (70). Because of the implications and impact of this case not only for First Nations but for all of Canada, the information issues and information needs related to it warrant attention from library and archival studies. The extensive testimony includes descriptions of what archivists call the juridical–administrative context and the documentary context (71) of both the written and oral records presented before Chief Justice McEachern; however he chose to ignore them in his decision. Nardi and O'Day, examining people's use of technology, wrote:

*we are subject to "inattentive blindness" when we are not ready to pay attention to something in our field of view. (72) / . . . / In other words, some of what goes on in any setting is invisible unless you are open to seeing it (73).*

Chief Justice McEachern -- seeing aboriginal rights as those needed for "subsistence and ceremonial purposes (74)" and aboriginal life as "not . . . in the least bit idyllic [since they lacked] written language, . . . horses, or wheeled vehicles . . . [and had] slavery and starvation [and] wars ... was, at best, 'nasty, brutish and short (75)" -- simply was not open to many of the ideas presented before him. Judge McEachern's rejection of the validity of oral history was related to his assessment of Gitksan and Wet'suwet'en cultures as "primitive" (76) based largely on technological traits.

The role of technology in information management and culturally–based concepts of advanced and appropriated technology also needs to be addressed when looking at First Nations and library and archival studies. In part, this is a question of recognition of the validity of oral tradition in a time when the "computer age" and the "information age" are seen as the same thing. Moreover, it is a signal to consider statements about the inevitability of certain types of technological change. Raymond Kurzweil writes:

*[Bookmaking] is a technology that was perfected many decades ago. Books constitute such as an integral element of our society--both reflecting and shaping its culture--that it is hard to imagine life without them. But the printed book, like any other technology, will not live forever (77).*

In discussing Judge McEachern's trial decision, Asch quotes Rosmand and Rubel's definition of ethnocentrism as "the belief that 'one's own culture represents the natural and best way to do things" (78). Ethnocentrism often looks back in time, asserting that certain events or changes in the past were natural and inevitable. The same assumptions about technology lead to predictions such as Kurzweil's vision of the end of [print] books and the redundancy of libraries as places; in Information Ecologies, Nardi and O'Day caution against blind acceptance of the inevitability of any specific technology (79).

The interaction of ethnocentrism and biases regarding technological 'advancement' give indigenous peoples good reasons to be concerned about the dismissal of their expertise and knowledge systems.
The struggle for the validity of indigenous knowledges may no longer be over the recognition that indigenous peoples have ways of viewing the world which are unique, but over proving the authenticity of, and control over, our own forms of knowledge (80).

Perhaps archival theory can provide some connections between these issues, particularly regarding the concept of authenticity. InterPARES, an international archival research project examining the authenticity of archival records, depends upon the translation of archival concepts such as the juridical–documentary contexts, from paper record-keeping systems to the electronic environment. Within a paper record-keeping system, one of the criteria for authenticity was that the record has to be affixed to a permanent physical medium. However, "As a result of media fragility and technological obsolescence, the term preservation as applied to electronic records no longer refers to the protection of the medium of the records, but to that of their meaning and trustworthiness as records" (81). The connection between media and authenticity is changing in the digital era. The InterPARES research is drawing attention to the aspects of Western record-keeping systems that Chief Justice McEachern ignored in the 1991 trial decision, including the juridical–administrative context and the documentary context of records. These are the people and processes which create written and electronic records, the same elements which Judge McEachern considered made oral traditions unreliable; the InterPARES research may address some forms of "inattentive blindness."

Visions and metaphors
More discussions between First Nations people and librarians and archivists are needed. Communications tools -- ways of talking about key concepts and issues cross-culturally -- need to be identified or developed. Metaphors can be powerful communications tools; "all metaphors channel and limit our thinking, as well as bring in useful associations from other contexts" (82).

Media and technology are often used as metaphors for information and knowledge. Information can be confused with information technology; books, historical documents and computers have strong symbolic power as representatives of the information they hold. While a useful metaphor in many ways, it is incomplete. It is not possible to understand archives or libraries on the basis of the objects they hold. The metaphor is especially misleading in the context of oral traditions, leading from an assessment of a lack of technology through a lack of literacy and literature to a lack of information. Stuck within this metaphor, it would be easy to dismiss oral traditions as a lack of technology. Looking at information as systems provides more opportunity to look at and recognize the importance of the non–technological elements of keeping, evaluating and sharing information; however the phrase "information systems" is often seen as synonymous with networked computer systems.

This metaphor is an interesting place to start looking at the interaction of First Nations and Western information systems. Doris Schoenhoff discusses her work with computerized expert systems in Third World countries, noting that "an interface is a common boundary . . . at which whatever exists on each side of that boundary -- computer systems, equipment, human persons -- can interact and communicate. Because it is a boundary with only a locus of interaction, the communication is never complete" (83). Because of the dramatic differences between Third World cultures and Western technology, she writes, "there will never be a perfect fit. . . . it is essential that we understand where the jagged edges of that interface will be and where the interface may fail entirely" (84). This metaphor may give the information professions different ways of looking at the First Nations material in their holdings and at First Nations information needs. It will give First Nations communities insight useful in developing their information systems.

Ken Hannigan, Senior Archivist at the National Archives of Ireland, noted that archives, libraries and museums have been termed "memory institutions." (85) Terms such as memory, legacy and heritage are meaningful for both First Nations and Western institutions, although they are more closely connected to archives and museums than to libraries. Many international indigenous groups have met to discuss cultural concerns; themes of legacy and heritage are common. Part of the definition for heritage in the Principles and Guidelines for the Protection of The Heritage of Indigenous Peoples' is:
11. The heritage of Indigenous peoples is comprised of all objects, sites and knowledge the nature or use of which has been transmitted from generation to generation, and which is regarded as pertaining to a particular people or its Territory. The heritage of an Indigenous people also includes objects, knowledge and literary or artistic works which may be created in the future based on its heritage (86).

In this definition, heritage includes places, knowledge, and tangible and intangible expressions of that knowledge. "Property," "cultural property," or "intellectual assets" are also metaphors for knowledge or information. Many indigenous people look to the international legal frameworks regarding intellectual property rights to protect their heritages, with limited comfort and success. The tensions between the idea of "heritage" and "property" centre around commodification and cultural values. Janke noted "the debate concerning the fact that 'property' denotes commercialisation and protection of commercial rights, whereas 'heritage' implies preservation and maintenance issues" (87). Some of the connotations in these terms include being of value and of being owned or having a sense of belonging. Often they are seen to be tangible things, something you can touch. Many of these connotations relate to cultural principles of ownership, property rights and sharing. These ideas are relevant to First Nations concerns about objectification, appropriation and commodification of their knowledge and heritage. Recognition of First Nations cultural protocols regarding information sharing and use is an urgent concern for First Nations. (88)

The nature of information itself is difficult to conceptualize, which is one of the reasons that physical expressions of knowledge are such powerful symbols. With electronic media challenging many of the assumptions which were unnoticed in print media, information professional are re-examining the idea of information itself in ways which may provide stepping stones for better understanding of oral traditions. John Perry Barlow's influential article "The Economy of Ideas: A Framework for Rethinking Patents and Copyrights in the Digital Age" (89), provides several wonderful metaphors and analogies for looking at information in the digital age. These include: "Information is an activity... a verb not a noun.... Information is experienced, not possessed. ...information has to move... information is conveyed by propagation, not distribution" (90).

Within the archival profession, the InterPARES project looks specifically at the differences between print and electronic records, noting that "it is not possible to preserve an electronic record; it is only possible to preserve the ability to reproduce an electronic record (91)" and "the main difference between electronic and non-electronic records is that non-electronic records are kept as authentic records by maintaining them in the same form and state of transmission in which they were when made or received and set aside (92), while electronic records can only be preserved as authentic copies by continuous refreshing and periodic migration" (93). These observations resonate with descriptions of oral traditions. "Oral tradition... survives not by being frozen on the printed page, but by repeated retellings. Each narrative contains more than once message. The listener is part of the storytelling event too... But no matter how thoughtfully oral traditions is performed, an appreciation of its message anticipates -- and requires -- a receptive audience" (94).

Many metaphors look at documentation and preservation of information. Verna Kirkness, an educator former director of the First Nations House of Learning at UBC, writes of the need to "bank our languages" (95) as well as teach them. Documentation projects -- such as the development of dictionaries and place name maps, and participating in research conducted with anthropologists, historians and other academic researchers -- are seen by some First Nations people as a necessity in order to have First Nations knowledge accepted within Canadian society. They are also seen as a way to deal with the disruption caused by residential schools (96). Documentation is useful or perhaps even necessary, but it is not a complete solution. Nora Marks Dauenhauer and Richard Dauenhauer wrote, "Preservation . . . is what we do to berries in jam jars and salmon in cans. . . . Books and recordings can preserve languages, but only people and communities can keep them alive" (97). Jo-ann Archibald, at a conference about Aboriginal Education in 1999, said: "It is important to preserve oral traditions, but perhaps even more important to let them preserve us. Oral traditions support us when we are challenged, and can show us the way if we let them" (98). Stories, and other forms of
aboriginal heritage and knowledge, are considered to be teachings. Oral traditions are also closely linked to education. The library’s role in society as "everyman's university" would be an interesting metaphor to explore cross-culturally.

Stories are also seen as capable of healing their listeners. "The speta'kl . . .  are stories which refer to events from the mythological age when characters like Coyote still walked in human form" (99). "This chapter on the inherent healing quality in the speta'kl about Skaloola the Owl [who stole children] is a metaphor for picking up the fragmented pieces of a culture and rebuilding it" (100).

Aboriginal visions of a good education is a good roadmap for considering what to expect of aboriginal visions of good information services. Based on his discussions with the Prince Albert Grand Council in Saskatchewan, Noel Dyck wrote:

What Indian parents wanted for their children in the nineteenth century and in the 1980s was an education that would equip them with the knowledge and skills required to participate as freely and effectively as they choose in the new society that emerged in Western Canada (101).

Doreen Jensen, a traditional Gitksan artist, said at the opening of the "Indigena: Perspectives of Indigenous Peoples on Five Hundred Years" exhibit at the Canadian Museum of Civilization in 1992,

As we enter this new age that is being called 'The Age of Information,' I like to think it is the age when healing will take place. This is a good time to acknowledge our accomplishments. This is a good time to share. We need to learn from the wisdom of our ancestors. We need to recognize the hard work of our predecessors which have brought us to where we are today. We need to look to the future, and to where we can incorporate our wisdom and vision in a healing culture for all peoples (102).

This vision includes many of the metaphors and values that are important for First Nations and for the relationship between First Nations and Canada. It's a good place for renew discussions between First Nations and information professions.

Notes

1. Some indigenous cultures had written language before contact with Europeans; others had forms of recording or expressing information on physical media.


5. Parkinson, 17.


12. The spelling of ‘wholistic’ is preferred by some aboriginal writers who want to emphasize “wholeness” rather than “holiness.”


16. Gisday Wa and Delgam Uukw, 30, 34.


25. Gisday Wa and Delgam Uukw, 30.
26. Little Bear, 76.


36. Chrisjohn, Young and Maraun, 76.

37. Boldt, 168; Chrisjohn, Young and Maraun, 132.


39. Boldt, 121.

40. Kelm, 104.


42. Crosby.


45. Chrisjohn, Young and Maraun, 171. Emphasis in original.


53. This research groups the languages differently than Ethnologue does, but both identify five language families in British Columbia. Museum of Anthropology, University of British Columbia, First Nations Map http://www.moa.ubc.ca/Collections/FNBCpom/map.html (10 February 2001).

54. Some First Nations communities do not agree with the categories developed by linguists or anthropologists.

55. In this context, the term 'asset' is used to refer to things of value; not commodities. The commodification of heritage and other forms of knowledge is a serious concern for many indigenous groups; their concerns are discussed at conferences such as Protecting Knowledge: Traditional Resource Rights in the New Millennium, ed. Union of British Columbia Indian Chiefs, (Vancouver, BC: Union of British Columbia Indian Chiefs, 2000).


64. Supreme Court of British Columbia, *Delgamuukw et al. v. The Queen*. Reasons for
Judgement of the Honourable Chief Justice Allan McEachern, Number 0843, Smithers Registry,
1991, 213.

65. Supreme Court of British Columbia, *Delgamuukw et al.*

66. Supreme Court of British Columbia, *Delgamuukw et al.*, 52.

67. Julie Cruikshank, "Invention of Anthropology in British Columbia's Supreme Court: Oral
Tradition as Evidence in Delgamuukw V. B.C.,” *BC Studies* 95(Autumn 1992): 32; Robin
Riddington, "Fieldwork in Courtroom 53: A Witness to Delgamuukw V. B.C.,” *BC Studies*

68. Court of Appeal for British Columbia, *Reasons for Judgement in Delgamuukw v. R.*,  
Vancouver Registry No. CA 013770, 1993.

69. Supreme Court of Canada, *Judgement and Reasons for Judgement in Delgamuukw v. R.*,  

70. Culhane, 360–361.

71. Archival theory and terminology were not mentioned in the *Reasons for Judgement*.


(Cambridge MA: MIT Press, 1999), 15, 16.

74. Supreme Court of British Columbia, *Delgamuukw et al.*, ix.


76. Supreme Court of British Columbia, *Delgamuukw et al.*, 25.


78. Abraham Rosmand and P. Rubel, *The Tapestry of Culture: An Introduction to Cultural


80. Smith, 104.

81. Luciana Duranti, "The InterPARES Project," in *Authentic Records in the Electronic Age:  
Proceedings from an International Symposium February 19, 2000* (Vancouver BC: the InterPARES 
Project, 2000), 10.


83. Schoenhoff, 1.

84. Schoenhoff, 2.

February 19, 2000 (Vancouver BC: the InterPARES Project, 2000), 41.


88. Battiste; Battiste and Youngblood; Union of British Columbia Indian Chiefs.


92. "made or received and set aside" is part of the SLAIS (School of Library, Archival and Information Studies, University of British Columbia) definition for a record.


95. Kirkness, 6–8.

96. Chrisjohn, Young and Maraun recommend the creation of an archives "modelled upon the Fortunoff Video Archive for Holocaust Testimonies at Yale University" (110).


100. Sterling, 195.

101. Dyck, 95.


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Bibliography


Questions?
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