Summary of the IDCS
Conference Discussions

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Abstract: Student researchers/recorders contributed significantly to the success of the Information Deficit: Canadian Solutions conference October 29-30, 2001. This overview of their research efforts explains how the conference’s four research streams were examined for the benefit of conference organizers and participants leading up to the event. Student summaries of interaction between discussants during plenary and breakout sessions reveal how a living research agenda unfolded over the course of the two days.

Résumé : Des chercheurs/rapporteurs étudiants ont contribué de manière significative au succès du congrès intitulé « Le déficit de l’information : solutions canadiennes » les 29 et 30 octobre 2001. Cette revue de leurs efforts de recherche explique comment les quatre courants de recherche du congrès ont été examinés avant l’événement même pour le bénéfice des organisateurs et participants du congrès. D’autre part, les comptes rendus étudiants des échanges entre intervenants lors des sessions plénières et lors des discussions qui les ont suivies révèlent comment un programme de recherche sur le vif a pu se réaliser au cours des deux journées du congrès.

Pre-conference research and conference recording
A key element of the IDCS-DISC conference was the contribution made by graduate students, who performed as research assistants leading up to the conference and then as recorders of plenary and breakout sessions. Eight students were employed to cover the four main thematic areas of the conference: Culture, Connectivity, Economy, and Law. Activities in each theme area were simultaneously recorded by one English and one French student. Plenary sessions were recorded concurrently by all eight graduate students.

Prior to the conference, students worked as research assistants, providing conference managers with electronic documentation, Web-based resources, and other materials pertaining to their assigned theme area. Theme areas were assigned in a combination of self-selection and negotiation with conference managers. Essentially, students expressed a preference and managers helped confirm the choices. For the English students, this was a painless process.
Students then proceeded to mine various electronic sources for relevant and timely information pertaining to their respective themes. Peer-reviewed journals were not avoided as a source but typically proved less valuable than the offerings of government, regulatory, and professional association groups (for instance, the Canadian Bar Association). This might be due to the specificity and emergent nature of conference themes, in the sense that the very notion of an information deficit in a national context is still highly exploratory. A list of information sources identified by students in the research assistance phase is included as a bibliography at the end of this summary.

Pre-conference research provided organizers, managers, and, most importantly, people planning on attending the conference with documents and resources central to the terms of reference and debates within a thematic area. For example, in the Connectivity stream, I was able to produce a wealth of resources considered core to activity in this area by simply tapping into the various Industry Canada related sites that provide complete access to key documents, including the National Broadband Task Force report and the myriad policy papers from the Information Highway Advisory Council leading up to that ministry’s Connecting Canadians program. All such resources were provided either as downloadable Portable Document Format (PDF) files, word processor files, or as World Wide Web links. Submissions by the student researchers for their assigned area were then reviewed by conference managers and posted to the conference Web site for access by participants and the public at large. The research was conducted over roughly an eight-week period just prior to the conference, thereby meeting another conference objective that information posted to the conference Web site be as current as possible.

As recorders during the conference sessions, each student was offered the use of a PC laptop, provided with disks, and given designated areas in which to set up and work. Headsets provided wireless connection to translators, who also facilitated each plenary and breakout session. Thus, each recorder was active during all phases of conference proceedings.

The challenge of recording both plenary and breakout sessions was two-fold: firstly, students had to capture as much as possible of the actual communicative action among participants while also building a sense of the essence and import of the discussions overall; secondly, at the conclusion of Day Two sessions, students then had to retire and summarize their recordings and impressions as a comprehensive brief for use by participants in the next day’s policy sessions. Deadlines were tight and the demands on students were extreme but ultimately gratifying. Moreover, conference organizers are to be commended for, wittingly or not, templating a knowledge-management framework wherein students actively participated in the construction of the knowledge transferred and generated during the conference. Informal responses by conference participants and breakout chairs were extremely complimentary of the student summary output.

Summaries were distributed the next morning and used as primers for participants during breakout policy sessions, which were also recorded. Ultimately, stu-
Students integrated summaries and notes from both days into an overall thematic area report submitted to conference managers several days following the event. The next section is an integrated summary of what was recorded by students during conference sessions, organized by conference theme. Notably, if not surprisingly, several issues span the four thematic streams, including lack of definitions/guidelines for identifying issues and possible approaches; lack of business models within which to contextualize needs and approaches; the role of funding agencies; and the overriding need to engage models and resources required to protect and promote Canadian presence on the Internet.

Culture

General summary of discussions
Locating Canadian content, helping Canadians negotiate the Internet to do this, and questions of how to validate material were major concerns in this stream. Assessing the quality of Web sites and issues about teaching critical thinking with regard to the Internet were also concerns. The creation of content was seen to parallel the need to place archival materials on-line, while remuneration of creators, copyright, and funding for the creation of content were identified as chief economic concerns. Education, especially at the K-12 level, was seen as a crucial site for the provision of Canadian culture, and a special need was identified to assist teachers to teach on-line literacy and to help teachers become aware of the available on-line resources. The ability for under-represented groups to access Canadian content was raised and participants felt that initiatives were required to eliminate these obstacles as well as others. The issue of privacy versus the right to know was identified as a concern. Finally, the ability of the Internet to provide a place for Canadians to establish a place for memories, stories, and community was seen as a particular strength of the medium.

Main issues

1. Locating and validating information. Finding information in the context of the volume of material was discussed in terms of the need to group sites logically or to develop sites so that they appeared in search engines more often. Respondents from small institutions wondered how smaller projects fit into the information society and expressed the worry that good material could be lost if not preserved. However, there was also support for the idea that the Internet should remain broad and chaotic, and that the deep resources of the Internet in the long run produce maximum choice. Validating information raised the need for the development of increased skills in critical thinking and improved research skills in order to tell the difference between credible and non-credible Web sites, or even between Canadian and non-Canadian Web sites. Questions of standards and who should authorize and validate material on-line led to the suggestion libraries could play a role in helping determine quality.
2. **Content creation.** There was a consensus that we need to both preserve and create new content—that the digitization of old content and creation of new content are complementary functions that must go forward in alignment. Archivists discussed the difficulties in making decisions about preservation of material on-line, viz. criteria for deciding what should be preserved and what should not, including material that:
- is most widely used
- is most accessible
- tells the story of Canada and its people
- allows for change, conflict, and the presence of different voices

3. **Economics.** Concerns about the economics of cultural creation were expressed in terms of copyright (who owns on-line content) and the remuneration of artists who had created content, either for traditional media or the Internet. Funding for creating and especially maintaining on-line content was of general concern. Both government and private industry were discussed as possible sources of funding, although difficulties with the practice of matching funding were raised, as was the expense of on-line materials, especially in the context of pay-per-use models.

4. **Education.** Respondents support aiding and assisting educators at the K-12 level in acquiring the skills to teach students how to make use of the Internet. Another concern was how curriculum experts can construct a curriculum to take into account the possibilities offered by new information and communications technology. Skills development was an issue at both the K-12 and university or college level. Need for funding for equipment was also identified at the university level. There was mention of problems of access in social studies and humanities research, where a lack of computer facilities prevented access to on-line journals. Some participants felt that there were technological issues that needed to be discussed; generally speaking, people discussing education issues invariably end up talking about technology.

5. **Ethics.** Participants wondered how to balance the right to know versus the right to privacy. In addition, participants were concerned with questions of access, identifying gaps in access to information—between rich and poor, parent and child, worker and unemployed. A gender gap was also discussed, and the need to encourage women in IT careers was expressed. The situation of rural communities was mentioned and a disparity of access was identified.

6. **National presence and sovereignty.** Participants reminded us that the Internet was the way in which many individuals abroad experienced Canada. There were some examples of using the Internet to promote Canada abroad. For example, the promotion of Canadian materials in languages other than French or English was cited as a way of improving access to Canadian content at this level. Concern over establishing and maintaining Canadian cultural sovereignty was expressed. Participants raised the example of Canadian content that was put on-line by U.S. companies without permission. A need to know
ourselves as Canadians was identified as an important precursor to making informed decisions about the issue of Canadian content on-line.

7. The arts. A need for more of the user's and the artist's perspective was expressed. Some felt that these groups were under-represented in discussions of on-line creation. We need to find out what people want. What is it like to be a creator of content? There was an expressed need to make a place for storytelling, especially to build a sense of on-line community. The Internet was felt to be a place to preserve and build memory.

Action items/suggestions/recommendations

- Metadata and the grouping of services were mentioned as possible solutions for problems in the location and validation of information. Many participants felt that an inventory of best practices could help with this process.
- Archives and libraries were recommended as institutions with experience in organizing on-line materials, and also as organizations to which money could be tied, instead of being tied to “vapourware” programs. The question was raised as to whether public libraries could become portals for access and creation, with some participants going further to suggest creating a guide that rates site veracity.
- There was a request for an institute with a mandate to oversee research data.
- A lot of support was garnered for search engines especially designed to find Canadian material.
- There was also a request for an on-line source listing copyright holders to help the providers of content.
- The idea of a “mother site” to provide access to Canadian material proved somewhat controversial, but support for providing time and money to educators to facilitate on-line literacy was strongly endorsed.

Potential barriers

- Chief among potential barriers was the question of funding—who should provide the funds and under what conditions?
- Participants also saw the assignment of federal and provincial powers as a potential barrier. The ability to cross over political barriers in establishing directions for education was of particular concern.
- Finally there was a plea for clarity in the discussion and the production of on-line material because jargon can be a barrier in its own right.

Connectivity

General summary of discussions

Connectivity spans social, economic, technical, and policy areas of discourse. As such, it emerged as very much an underlying issue and raised as many questions in discussion as were addressed in presentations. Commentary and dialogue between presenters and audience, while of course not conclusive, were always suggestive,
and a number of working summary statements were drafted for consideration in the policy forum session.

The general tenor of issues emerging in this stream can be summarized in part by the following basic questions:

- Why are we connecting?
- What’s involved in understanding Connectivity?
- Who is and is not connected (and why)?
- What are some effective models for Connectivity?
- Who’s participating in the Connectivity discourse (or not and why not)?
- Who needs to be involved in this discourse?
- What are key considerations in attempting to advance Connectivity in general?

Discussion in and around these and other questions clustered thematically into several main issues or seams of discourse. Discussion generally was enriched by representation of the academic, professional, and regulatory arenas on the panels and in the audience. Presentations involving recent or current research and/or Connectivity undertakings—especially those involving physical communities—anchored much of the discussion and helped instigate concrete policy recommendations.

Main issues

1. Using public resources more effectively. Several speakers and respondents questioned the role of and redundancy among various funding agencies involved in developing Connectivity and research related to the issue. This also had bearing in discussions of support structures for teaching users and teaching teachers of users and content creators, as well as the metabolizing of Communications into Industry and Heritage streams at the federal level.

2. Tension between public and private role. This thread was related to the first theme but raised issues such as the (mis)application of urban-based business models in rural settings, the need/degree to which the private sector ought to be involved in Connectivity in developing public space, developing non-profit models for Connectivity initiatives, and getting government to think of users of services as clients.

3. Collaboration, access, and synergy. Attendees discussed designing technology by bringing to bear all the elements implicated in effective communication (psychology, communication theory, design principles). This led into creating universal access, and using the technology itself to effect efficiencies, mutual-benefit use, and enculturate knowledge creation and transfer.

4. Reversing the technology-content relationship. Emphasis on Connectivity has been on hardware, at the expense of content and users. It was suggested that we need to switch the funding ratio around to favour development of content-creation resources (teaching, et cetera) and content creation itself (including databases and archives). Additionally it was emphatically agreed
that it is necessary to switch the causal order: instead of forcing content into inherently difficult technologies such as HTML, we should adopt the technology to content.

5. Understanding the complexity of communication via the Internet. The digital divide can be split along a number of seams, but many of them have to do with better preparing users and better informing potential users of the technology and its benefits. Also, more effective training of content providers might prevent wasted bandwidth ("pyrotechnics") while improving overall site quality and reliability. Addressing this "first inch" problem can expand the "mindwidth" of producers and promote mental models generally that encourage discovery of the Internet as space for cultural legacy. Better understanding of the social dimension of Internet use tells us a lot about the interplay between technology and society in general but also better equips us to match the technology to the content.

6. Risk capital and R&D for content. This traditionally has not been a problem on the hardware side but remains an issue with smaller content providers, especially in the publishing sector, where the slim minority of players who understand the potential of the technology lack the resources to advance significant application of it. Balancing risk capital and content R&D similarly applies to government, which faces the dilemma of not risking dollars but not falling behind either.

7. Alternative business models. This need was expressed strongly in the cases of community space Connectivity in both the urban and rural setting where agents seek solutions to non-profit or dispersed population environments. Alternative business models implicate economies-of-scale strategies in the rural setting, whereas a FreeNet or public broadcasting model was discussed for urban communities.

Action items/suggestions/and recommendations

- Lobbying for full funding and better R&D models on the federal support side.
- Lobbying for better co-ordination between government departments, including public access to funding proposals.
- Lobbying for greater provision of training for industry and government.
- Design of provisions to include more stakeholders in the discussion process.
- Establishment of measures to ensure that diversity is acknowledged, even at the local level.
- Lobbying for more realistic funding structures to embrace operations burdens.
- Lobbying for provision of sufficient funding for teachers and educational resources.
- Design of measures to ensure content for all strata in society.
- Lobbying for measures to ensure better public access to public information, including research data.
• Development of education and awareness programs for developing community capacity.
• Development of strategic planning that is not necessarily North American-focused.

Draft policy statements
• Canada historically has adopted technologies to involve all citizens regardless of age, gender, or background and needs to approach Connectivity from this perspective.
• Connectivity is a cultural, economic, and technical issue requiring all three sectors’ involvement: corporations, government, and civil society.
• Access means availability, affordability, and usability.
• Meaningful use and participation in a knowledge culture must include a supportive environment that meets the needs of the disenfranchised by building universal access. Meaningful participation includes a balance between private interest and public service and the provision of relevant content.

Potential barriers
• Lack of motivation by key stakeholders (business and technical sectors) to become involved in content issues.
• “Two Solitudes” issues of language use (jargon) to conceptualize technology and define power structures and territories.
• Lack of awareness, application, and skills in the educational sector.
• Lack of public funding.
• Lack of government awareness and co-ordination; bureaucracy.
• Narrow range of business models.
• Indecision or lack of priorities.
• Political shifts (departmental restructuring/rationalization).
• Corporate withdrawal of risk funding.

Economy
General summary of discussions
Cultural policy dominated discussions of the new economy in terms of questions about the nation’s history, further examining the motivations for Canada to enact early policy measures, ongoing concerns for new policy development, and the effectiveness of existing policy in language representative of the Canadian cultural industry. These discussions raised the issues of benchmarking by use of commercial statistics of purchases and reconsideration of education as a public service rather than a commodity. This then highlighted potentially broad ramifications in terms of international trade agreements and international instruments such as the World Trade Organization (WTO). Accordingly, issues of copyright were raised in several sessions, with the suggestion being made that it was evolving in the new information media era. Better protection for producers of
information/content with respect to commercial intellectual property and remu-
neration considerations was also discussed.

Conceptually, the special nature of the World Wide Web was considered in
the sense that it is not a mass medium like television or radio because of the
various divides—including gender, age, education, geography, and income—that
arise in terms of physical access to equipment, connectivity, content, and use. The
Internet was widely discussed as having the potential to not only reflect, but also
preserve and record culture.

The Internet has been considered as a possible source of democratization
through increased political participation and diversification of knowledge. But
there is the realization that it may paradoxically have reverse effects, drawing like-
minded people into isolated virtual communities.

Main issues

1. **Definitions are of central importance.** What is culture? How does culture fit
   into an economic discussion? What does it mean to be Canadian? What is
   Canadian content? Another issue was the clear delineation of culture and
   industry, especially in dealing with the U.S. under NAFTA.

2. **Funding.** Who is going to fund the various measures: are they to be publicly
   funded, or is the money to come from the private sector? What kinds of part-
   nerships could be created to allow non-profit groups to remain solvent and
   sustainable?

3. **Citizen engagement.** There needs to be closer contact between community
   groups and public institutions in order to better serve the needs of the com-
   munities.

4. **Models.** The question of how to find a broad sustainable model for the
   Internet was raised not only in terms of commercial venues, but also of infor-
   mation/content sites.

5. **Public access.** Public access points such as schools, libraries, and band
   offices can both open and limit access. While they serve as necessary points
   of physical access for many, a lack of technical support, or limited availability
   and operational hours, can also restrict access.

6. **Sustainability.** The problem of the reliability and credibility of the informa-
   tion on the Internet was raised, as well as the problem of accountability for
   false information.

Action items/suggestions/recommendations

- Policy priority needs to shift from production to content.
- Thinking globally continues to be vital, as does Canada’s voice in the increas-
  ingly internationally supported call for a new international cultural instru-
  ment (UNESCO, possibly) to balance trade (WTO) and economic (G-8) issues.
- Subscription models for the Internet are recommended as a means to fund
  content. These measures range from micro-payments to Internet content cre-
ators to pay-per-item sites for on-line delivery of information/reports to subscriptions for premium information.

- Better access to funding will be essential for small companies and creators, who typically have the greatest trouble making a sustainable effort to put content on-line. This applies equally in the R&D context, to allow production innovation and creativity to be better funded, experimented with, and studied in terms of diffusion and impact. Tax incentives, such as reduction tariffs, and exemption of taxes or GST, are considered appropriate measures for content producers and buyers.

- Private-sector partnerships are strongly recommended to allow some groups access to funding that they might not otherwise have.

- More funding of universities for technology and content will be crucial for Canada to remain on the cutting edge, including piggybacking cultural information sites onto university funding.

- Encouraging and developing different types of loans (for content businesses of various sizes and at various stages) must become a priority.

- Better information resources must be designed in order to determine what works well, not only for e-business, but also for communities, in order to generate better e-models.

- Measures must be put in place ensuring the fair treatment of IT workers (many of whom are independent contractors and have none of the employment protection and guarantees afforded other workers under the Employment Act).

- The federal government must recognize, as does Quebec’s Statut de l’artiste, the unique quality of working artists and generate new fiscal models, similar to the tax exemptions and write-offs for the self-employed.

- Content funding put to use in the non-profit sector must allow for the most efficient use of funds, as the funding is likely to concentrate on comprehensiveness of information as well as possibly fill in certain gaps not addressed by commercial ventures, especially those concerning access.

- A cyber-specific trade mission ought to be organized in order to better acquaint trade partners with some of the technical and production innovations from Canadian companies and creators. This would raise the profile of Canadian content internationally as well as create commercial opportunities.

**Potential barriers**

- As a small, multilingual market, Canada’s cultural production costs are high and more difficult to recoup within the internal market.

- Problems of definitions with trading partners, notably the U.S., especially as to what does and does not constitute a cultural product.

- Core/periphery issues, that is, the difficulty of peripheral areas and marginalized groups to have access and/or content tailored to their needs.

- Economies of scale. Investing in new technologies can be very expensive and prohibitive for smaller companies.
• Copyright, including generation of content for commercial, artistic, and educational purposes. Fear of abuse by large companies demanding restrictive rights, including first use and digital rights against the producer. Also, the possibility of non-use by companies where the producer will not be adequately compensated for the creation must be addressed, in addition to access by producers to their non-used content.

• University copyright. Instructors are concerned they are being asked to generate educational content for which they are not given credit in tenure-track or other employment situations. These instructors are also concerned that they are creating content where the university will continue to generate funds, but they themselves will not be adequately remunerated.

• Public funding, like private, tends to be concentrated in areas where there is no lack of access. The prevailing attitude seems to be that funding ought to go where it might produce “more bang for the buck.” However, this still does not resolve the issue of lack of access and of marginality. It may well be in areas where there is little or no access that the most bang might be had for the invested buck, as it will produce highly visible, direct results.

Law

General summary of discussions
Is the existing legal framework able to regulate the Internet? Discussions in this stream addressed this question by focusing to a large extent on copyright regulation. While standing laws apply to the Internet, many of the problems are associated with identifying responsibility for Internet content and actions allowing for the enforcement of existing laws. A challenge facing enforcement and judicial authorities is that definitions have changed or lost their meaning in light of new technologies. Discussions, then, were quite broad in scope, ranging from philosophical issues of public good to case studies and specific examples of some of the many facets of legislating and regulating cyberspace. Central to the discussion was an examination of the Canadian Radio-television and Telecommunications Commission’s decision not to oversee the Internet, keying not only on whether the legal framework was sufficient, but probing the extent to which government should be involved in the regulation of the Internet. Conversely, the extent to which adoption of on-line technologies will contribute to an increasingly democratic government was also discussed. Addressing the key point of the conference at large, the question arose as to whether an information deficit actually exists. Breakout sessions saw people asking what steps authors, academics, musicians, and other content creators could and should take to safeguard copyrights.

Main issues

1. Copyright. Is it an outdated concept? Are the issues surrounding ownership and the transfer of rights sufficiently understood in the analogue world to be applied in the digital world? What about the question of moral rights with regard to the exploitation of authors through “blanket licensing” of intellec-
tual property? Is copyright simply a barrier to the free exchange of information—an added cost? Should knowledge be commodified or kept in the public sphere? Considerable debate occurred over whether copyright or, conversely, its abolition would be a better way to meet the interests of the public.

2. Napster and Napster-like programs. Discussion raised the issue of the control of access. Here it became quite obvious that we still tend to think of the models for the Internet in traditional ways—in terms of publishing houses, recording labels, et cetera. Out of this, the concern arose that creators may be less apt to produce material if there is no incentive. However, it was generally agreed that people produce material for all kinds of motivations, not just the fiduciary ones derived from copyrights.

3. “Copyleft.” Models upon which computer systems such as Linux are based were advanced. These models are based upon public ownership of copyrights.

4. Quality, integrity, and reliability of public knowledge. Debate arose as to whether or not there should be exemptions to the fees associated with purchasing rights from a collective for academic purposes. It was generally recognized that there are various categories of authors and creators of content. Professors who receive a salary for their work can not be considered in the same light as freelance journalists who rely directly on the sale of their work to make a living.

5. Cost recovery by the government. Is it a good or a bad thing for the government to charge for access to material compiled using taxpayer dollars? Some felt the fees were a barrier to access, others felt they provided a valuable filtering mechanism, forcing requests to be focused as opposed to broad “fishing” expeditions that can be resource intensive. Related to the question of whether the government should fund or conduct research, then sell it back to the public, is the question of academic journals and how we could curtail—or justify—taxpayers paying for the research and then buying the results back from the publishers.

6. Posterity and recognition of ownership. Providing access to and archiving digital information for posterity’s sake relates to the issue of asking only the producers or creators of content to give up revenue for the “greater good” (something widely felt to be an inequitable proposition). Since professors don’t offer to take pay cuts, nor publishers offer to take cuts in profit all in the name of the “greater good,” why should this burden be borne only by content creators?

7. Responsibility. It was noted in a number of discussions that the concept of responsibility seems to be missing from the Internet. Very few people claim responsibility for material, actions, and transactions taking place on the Internet, except when it comes to collecting revenue. Identifying those responsible would help in the application of our current laws in cyberspace.
8. **Information deficit.** Is there one? It was suggested that what exists today is not a deficit but lack of comprehensive methods for data retrieval. Tied to the idea of data retrieval and archiving was debate surrounding when intellectual property should be entered into the public realm. One side felt that it should first be released to the public, and then controlled, the other vice versa. Essentially, the answer would seem to depend upon the nature of the information involved.

9. **New models.** Because we are currently approaching the Internet from a traditional broadcasting model, we need to revisit some of the implications of the new technologies (for example, iCraveTV and Jump TV).

**Action items/suggestions/recommendations**

- It was suggested as one of the key considerations in terms of legal and regulatory issues that legislators and regulators be proactive, as opposed to reactionary. Not everyone, however, agreed that government regulation is the solution. Self-regulation, its viability, and the pitfalls associated with such a solution were also discussed. One suggestion included the use of “seals of approval,” which could attest to the value and authenticity of sites, in addition to their appropriateness for children. There are obviously dangers of discrimination associated with such a step, and the mechanism and process by which such “seals” would be awarded would need to be looked at more closely.
- It was suggested that the elimination of “middlemen” such as publishers might make the copyright system more equitable.
- It was recommended that increasing the level of education of content creators would not only ensure more economic use of the technologies involved, but might help them avoid being exploited. Educating users of the Internet would help them make better decisions about the quality of content available to them, about avoiding being defrauded, and about the costs of stealing intellectual property.
- It was proposed that all stakeholders (including citizens and citizen groups) have a say in the development of on-line regulations and laws.
- It was recommended that all blanket licences be investigated on the grounds that there may otherwise be no means by which their contributors can negotiate fair practice (the result being that content producers are essentially coerced into exploitative agreements without recourse to viable alternatives).

**Potential barriers**

- **Economic viability** (or lack thereof), fears of breaking with tradition, inability to think “outside the box,” bureaucracy, and a fear that industry won’t want to alter the status quo. For instance, if a cancer drug were discovered, would putting it on the market mean such a reduction in sales of other cancer treatment drugs that releasing a cure is no longer viable for pharmaceutical companies?
- **Inequitable practice.** Until a method is developed for making Internet access limited by geographic region, there will always be the problem of certain
countries and jurisdictions allowing what others do not wish to allow. Companies and individuals tend to seek out jurisdictions that are most sympathetic to their needs.

• *Technical insufficiencies.* Difficulties arise relating to the effective transmission/translation of texts and their conservation/intact preservation. Conflicts may arise when migrating archives to newer versions/technology in that the original document might not be able to be preserved. Is preserving the text enough or must one also preserve the original format?

• *Lack of sufficient expertise.* It is generally felt that there is a lack of understanding of new technologies on the part of universities and some institutions that are to a large extent responsible for the creation and/or preservation of documents and resources for the public interest.

• *Lack of resolution of issues including ownership and distribution of materials.* Many organizations want exemptions from paying for the use of intellectual material. Some points of view, particularly those of the collectives, stressed that we often equate access with free (meaning no-cost) access.

**Reference**
Compiled from summaries by Nick du Prey, Dawn Bryan, & Gaelle Eizlini, University of Calgary.