1. Conference on Culture and Technology (1991 : Montreal, Quebec)

Conference on Culture and Technology

Proceedings

May 28-29, 1991
Montreal

Canada

Communications Canada

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Minister's Message

It is a pleasure to present the *Acts of the Conference on Culture and Technology*. The conference was held in Montreal on May 28 and 29, 1991 and brought together from every region of the country individuals working in a broad range of Canada's culture and technology sectors.

The meeting created bridges for increasing co-operation between the various parties involved in every aspect of Canadian cultural development.

The discussions provided opportunities for an exchange of views on the impacts of technological developments on our cultural expression: training, access to technologies, protection of copyright, and partnerships between creators, distributors and the technology sectors.

Some of you have no doubt continued the dialogue in your respective communities and may even have strengthened the links forged at this conference. The Department, as part of its on-going examination of the evolution of the new technologies and their impact on culture and communications, is taking an in-depth look at the main conclusions which came out of this two-day meeting.

I wish to thank all the participants, speakers and panelists from all corners of the country who helped make this conference a success.

Perrin Beatty

Session Proceedings

(Summary proceedings of the workshops presented by the rapporteurs)

Introduction

The Department of Communications (Canada) hosted a major Conference on Culture and Technology in Montreal on May 28-29, 1991.

The main objective of the conference was to highlight the fundamental 4changes now taking place, at the national and international levels, and to examine how these changes relate to the capacity of Canadian creators to access and effectively use new technology in an increasingly international market place. Like all other economic sectors, culture is subject to technological developments which profoundly affect the production, creation, distribution and consumption of cultural products.

The established cultural industries, including publishing, broadcasting, sound recording and film, appear to be the most susceptible to changing technology. The digitization of media, the introduction of high definition television, the convergence of computer and television, the increased use of the musical instrument digital interface (MIDI) and interactive media, as well as numerous other technologies represent both challenges and opportunities to the creative community and to the communications and cultural industries.

The detailed objectives of the conference were as follows:

- To identify and assess the impact of new technologies on the key sectors involved in creating, producing and distributing cultural products.
- To identify the strategies required to ensure the smooth introduction, application and exploitation of technology by Canadian creators, performers and cultural industries.
- To establish priorities for both the private and public sectors for implementing these strategies in the areas of culture and technology.
- To encourage cooperation between all the major players.

Introduction

As technological innovations take hold in the 1990s, Canadians will want to ensure that the cultural industries and the public they serve are positioned to take full advantage of these developments and that all the key players in the private and public sectors are actively developing, in consultation and collaboration, the strategies and policies needed to maintain a vibrant and competitive cultural sector in Canada.

The Department of Communications through the Canadian Conference on Culture and Technology proposed to examine the main issues surrounding the impact of technology in five areas: audiovisual, sound recording, publishing, performing arts and museums/archives.

This document summarizes the proceedings of the workshops, as presented by the rapporteurs at the plenary session and provides an analysis of the content and discussions. To obtain the notes of the workshops from the Department of Communications, complete and return the insert.

Audiovisual Workshop

Moderator

Richard Stursberg
Senior Vice-president
UNITEL

Rapporteur

Derrick de Kerchove
Director
McLuhan Centre

Panelists

Mark Blanford
Producer

Doris Kochanek
Computer Animation
National Film Board of Canada

Danielle Marleau
Producer, Interactive Programs
Vidéotron Plus (Vidéoway)

Vincent John Vincent
Vivid Effects Inc.

Stuart Cobbett
President
Astral Film Enterprises Inc.

Michael Allen
Vice-president, Regulatory Affairs
Rogers Communications Inc.

Sue Knott
Director, Broadcast Services
Telesat Enterprises

Charles Terreault
Assistant Vice-president Technology
Bell Canada

Panel on the Creative Process

Five key assumptions were presented and discussed:

- Participants agreed that a basic strategy is lacking in Canada to develop and promote the creative process and innovations in both hardware and software (i.e. programming) products.

- The control of culture is seen to be in the hands of those who control the distribution, rather than in the hands of those who are responsible for the creation of cultural goods.

- For both ends of the arts-technology spectrum better bridges should be built both technically and institutionally between artists and arts communities on the one hand, and engineers and industry on the other hand.

- Artists and creators would benefit from greater access to new technologies, to information about technologies, and to labs and centres where such technologies might be used or developed; however, the main problem may be psychological, i.e., a need to overcome inhibitions about new technologies.

- There is not enough collaboration between the big distributors and the creators of new hardware products and programming in the cultural domain; thus much of the grassroots work which is especially prolific and valuable in Canada goes unnoticed.

Panel on Distribution and Marketing

Key assumptions of discussion were:

- Culture and technology are intertwined as application of new technology expands existing markets and generates new cultural products. "The pie keeps growing larger and the consumer is the ultimate winner." There is a general trend toward more and better choices for the consumer.

- Content and programming are always "in progress"; they never reach maturity, because the production and distribution technologies keep changing and improving. Application of new technologies means that the cultural industries are dynamic.

- Government regulatory bodies tend to take too much time, often resulting in significant loss of revenue to Canada (e.g., the pay-TV regulations which took almost ten years with the result that, by the time they were in place, most Canadians had bought VCRs and the cable industry had lost potential market to video rentals).

- There is no policy framework to protect Canadian films and videos in the video rental market, nor are there provisions to handle the developing DBS market (Direct Broadcast to Satellite), which will result in US superstations beaming US products directly to large segments of the Canadian population.

- The refusal of the US to consider films, videos and records as anything but commercial goods – and not as cultural industries – is a matter of deliberate commercial policy, rather than US ignorance of Canadian sensitivities.

- Among the answers to increased import competition is to create quality niche-marketing in industrial and community educational programming, special services and electronic tourism, for example; and also to encourage international co-productions with other countries; an example of a Canadian export in the US is Northern Telecom's Mississippi 2000 tele-education project bringing together three high schools and four universities via video and teleconferencing to provide improved education in underprivileged areas.

Recommendations

Much of the thematic discussion concentrated on ways to create a centre, a structure or an event to allow artists and engineers to get together and collaborate regularly.

- Three key suggestions were proposed:

  a) To create a "media access centre" somewhere in Canada.

  b) To launch a biennial videoconference for arts and technology products and art forms across Canada.

  c) To continue the consultative process begun with the May 28-29 Conference and ask the Department of Communications to provide minimal administrative support for gathering and distributing information about such matters.

- A proposal was put forth to redefine R&D for the benefit of the new art and technology collaboration as *Research and Design* rather than *Research and Development* which is seen as the industry's responsibility.

- It was proposed that a large support system be created across the country for the development of Canadian content in art and technology; this would require an institutional structure involving a formal collaboration among government, industry, academe and the arts communities.

- Finally, to find the means to accelerate the drive rather than allowing, by neglect, the slowdown of the arts and technological innovation in Canada; this is important for national identity, cultural development and the maintenance of Canada's place in the technological race.

Conclusion

The question and answer periods after both panels, apart from stressing underfunding and unequal distribution of funds for the arts and technology initiatives across Canada, also proposed new directions. These supplement the concluding remarks of this report.

Note: Canadian artists and engineers are better known and appreciated abroad than at home. Participants suggested that ways be found to raise consciousness in Canada about the exceptionally valuable grassroots work done in art-engineering and hardware technology (as witnessed in the Production '91 trade show) in Canada.

Moderator

David A. Basskin
Managing Director
Canadian Musical Reproduction Rights Agency

Rapporteur

Patrick Butler
Protax, Regina

Panelists

Paul Hoffert
Composer and Computer software developer

David Rokeby
Interactive sound artist

Pierre Bertrand
Song writer and composer

Claude Brunet
Lawyer
Martineau Walker

Brian Robertson
President
Canadian Recording Industry Association

Paul-Émile Beaulne
Executive vice-president
Radiomutuel/MusiquePlus

Jason Sniderman
Sam the Recordman

The following were considered the major areas of concern facing sound recording in Canada over the next decade:

- Artists and creators should be recognized as the "Research and Development Department" in the application of new technologies.

- A framework should ensure that artists and creators are properly compensated for their work.

- Without the support and development of creators at the grassroots level, Canada will continue to export its vital talent base.

- Access to distribution of products/works of art. Many works currently being produced would have international viability if the marketing and distribution networks were not as concentrated and controlled by predominantly US based multinational companies.

  Participants discussed the role of new technologies in this area. For example, the "celestial jukebox" model of information delivery directly to the home was compared with the use of common carrier lines as *user pay* bursts of data. The continuing role of massive marketing and promotional campaigns will still, however, be the arena of the large corporations and as such still serve to limit access.

Recommendations

To deal with these problems it is recommended:

- That the copyright laws of Canada be brought immediately in line with international standards to improve the financial well-being of creators.

- That the private sector be encouraged to provide access to new technologies for artists and creators through tax-credited bursary or grant programs. Put tools and financial support in the hands of creators.

- That a tax or levy on blank tapes be instituted. A portion of this royalty should be earmarked for various industry and artist support programs similar to European initiatives and the balance should be paid to individual artists and/or companies on a pro rata basis.

Conclusion

The major areas of concern were the role and protection of the creators of information in the development of the industry and the application of new technologies. One comment was that bureaucrats and shipping clerks can make a living from the area of sound recording whereas many recognized artists cannot.

Moderator

Bruno Roy
Writer
President
Union des écrivains

Rapporteur

Peter Atwood
Director
Blizzard Publications

Panelists

Fernand Dansereau
Author

Joyce Nelson
Between the Lines

Jacques Fortin
President
Québec Amérique International

Linda Jones
Centre for the New Oxford Dictionary and Text Research
University of Waterloo

Margaret McClintock
Coach House Press

Daniel Rodrigue
Electronic Publishing

John D. Lowry
Chairman
Discis Knowledge Research Inc.

James de Gaspé Bonar
Vice-president Publishing
Groupe Sogides

The participants considered the publishing sector to be unique since it is one of the cultural industries being reviewed and it is not bound by technology. It was felt that the publishing industry can benefit from the convergence of technology since new means of distribution require content.

For the Canadian publishing industry to grow, participants thought three requirements need to be addressed: partnerships, access to technology and coherent policy.

Partnerships

The industry would benefit from establishing new partnerships between publishers and other media/technology developers to encourage the establishment of consortiums, information exchanges, etc. There should be more opportunities for the different parties involved in publishing (writers, publishers, consumers) to meet and discuss mutual interests.

Access to Technology

Creators need to have access to new technologies to familiarize themselves with the opportunities/possibilities. As a second element, much could be achieved by improving communication between the different players to understand the full potential offered by technology to improve efficiency in publishing and to conduct business.

Most participants believe technology offers *huge opportunities* in terms of industry efficiency but also in terms of new market development. These technologies can help in areas like economies-of-scale pricing and distribution. However, to maximize benefit from these possibilities, technology must affect all levels of the trade by encouraging access to technological innovations from the writer to the distributor.

Coherent Policy

Participants underlined that both government and industry need coherent policies and strategies. Governments must become more aware of how technology is affecting the publishing industry and adjust their policies and programs to reflect these changes. Better coordination and integration of policies between government departments in the area of publishing could be the first step.

Participants also asserted that the Canadian industry itself will require more strategic planning and community initiatives/partnerships to support industry growth. Present copyright laws and the GST are two examples of inconsistent government strategies for the domestic publishing sector.

Moderator

Robert Lepage
Artistic Director
French Theatre
National Arts Centre

Rapporteur

Anna Stratton
Arts Producer

Panelists

Michel Lemieux
Multimedia Artist

Ken Hewitt
Canadian Institute of Theatre Technology

Lee Eisler
Co-director
JumpStart

Peter McKinnon
President
Associated Designers of Canada

David Langer
Executive Producer
National Arts Centre

Danielle de Fontenay
Managing Director
Carbone 14

Alain Paré
Director General
CINARS

Peter Feldman
Director General
CAPACOA

Accessibility

The word which arose in many different contexts was *accessibility*:

- accessibility of the artist to technology,
- accessibility to audiences,
- accessibility of audiences to the artists.

Technology must be accessible from creation through:

- production,
- marketing,
- presentation,
- diffusion, and finally
- conservation.

Access and the Artist

If the artist chooses to use technology, then it must be present at the time of creation. If technology can be used in creation, then its presence throughout the various stages can continue to be a creative one. Without access during creation, the utilization of technology in other stages will be limited.

One essential need is for the creators to play with the medium, to explore, to learn how to use it, to learn what it can do; to learn the "six points of the snowflake" and then to find the infinite possibilities; to make discoveries through play.

Discovery is limited without technological access. Certain barriers to access exist beyond the basic needs of the artist. Other issues which further limit access are gender, class, region, race and language. Questions must be asked continually about who makes the decisions, where they are being made and on what basis.

Collaboration

The use of technology brings with it a necessity for collaboration that can be positive: an opportunity for creators, technicians and other specialists to work together in a creative process. As one participant noted, there is an opportunity for a "renaissance" but there are limitations to the collaborative processes inherent in rationalized structures, within bureaucratic decision-making structures, within the management structures of performing arts organizations themselves and often within union regulations.

Technology brings us the opportunity to find new ways of working, but we will have to let go of some traditional structures. One participant in the first session reminded us that the native peoples offer a traditional decision-making structure based on consensus which they could share with us, if they could gain access to such forums as this.

Copyright Issues

Another issue concerning the possibilities of collaboration and interactivity is who owns what, who has rights to what and how can a creator protect her or his work. A whole new set of problems are presented in terms of copyright issues.

Technological Costs

Another issue is cost of technology. Performing arts organizations are already strapped by cutbacks, by reduction in staff, by fewer opportunities for performers, by reduced rehearsal time, by burnout. Technology presents new costs, not only for purchase and maintenance, but also for training, for time, for increased personnel costs. One participant pointed to the chain of demands which technology can make on a small organization. Already struggling with existence, it must become a medium or large organization overnight in order to cope with increased demands presented by the presence of technology.

Approach Psychology

Another barrier to technology is the psychological barrier or how to approach the technology. The consensus was that technology is just another tool in the artist's bag of tricks and must be seen as that. However, technology must be included as one of the choices in the bag as it is very much a part of the world in which we operate. The artists have a responsibility to seize the opportunity, to use it, reflect upon it, criticize it and bring it into their world.

Audience Access

In terms of artists' access to audiences, and audiences' access to artists, there was a discussion on the potential impact which broadcasting the arts may have on live performance. There was no conclusive evidence because this is virtually unexplored territory in Canada and one must first feature the arts prominently within the broadcasting system to see what the impact would be.
Fundamentally, participants affirmed that audiences will accept and respond to the arts on broadcast media if they are performed well. This implies again that the artists must be engaged in the process from the beginning.

However, each live performance is a site-specific event with a particular kind of communion with an audience. A broadcast performance is another kind of event, another creation, and should be seen as such with opportunity for adaptation and a whole new creative process.

Training and Technology

Technology also brings with it new demands for training: basic training, on-going training and professional development. This includes both creative training and skills acquisition for artists as well as other practitioners. Technology also offers new opportunities to deliver this training through distance learning, video cassettes, and other means.

Some Thoughts on Solutions and the Players

The federal government has a leadership role to play in creating public policies which embrace and celebrate the arts while positioning them in a central place in our culture. This belief would be made manifest in a broadcasting policy that requires much more significant arts programming.

One federal agency, the National Arts Centre (NAC), has already taken an initiative in broadcasting and is working on setting up an alternative arts broadcasting network as part of non-discretionary cable services. The NAC and the National Archives of Canada are also setting up a program to record "nationally significant works in the performing arts" and to create a library, providing such work for present and future generations.

Regarding access to technology: it was observed that artist-run centres where artists already have access to technology are logical locations for further support. The Banff Centre offers a well-equipped centre for use by professional artists both individually and in groups.

Information needs to be made available and shared: for example, the Canadian Institute for Theatre Technology has created an electronic network among its members and has initiated educational and training programs, as well as information sharing.

In terms of training: apprenticeship seems most appropriate for applications of technology. Participants showed a willingness to engage in apprenticeship, mentorship and on-the-job training initiatives. Artist-in-residence programs in the private sector were seen to be an innovative approach to involving the private sector with government leadership in such initiatives taken by the government.

In terms of costs, CAPACOA, an organization of performing arts presenters, has initiated a project to develop a cold-light source that is lightweight and flexible, creating performing opportunities across the country by reducing touring costs while retaining maximum possibilities for diffusion. This system could be purchased by performing groups at reasonable cost; the project is in a feasibility stage.

Finally, the panel heard one example that clearly demonstrates artists' taking technology into their own hands and accessing the market. A participant from Saskatchewan told of a project launched to develop an arts magazine on video for distribution on video cassette. This French-language program covering arts in Saskatchewan will at first be distributed provincially four times a year. It is a collaboration among the artists, a university film department and government and private funding sources.

Moderator

Bob Christie
Christie Communications, Alberta

Rapporteur

Douglas Leonard
Chief Curator, Human History Division
Manitoba Museum of Man and Nature

Panelists

Hélène Lamarche
Head, Education and Cultural Service
Montreal Museum of Fine Arts

John Lomoro
Chief Informatics Technology
Canadian Museum of Civilization

Louise Guay
Public Technologies, Montréal

Renée Bourassa
President and CEO
Le Groupe Nexus

Cynthia Durance
Director Archival Standards
National Archives of Canada

Marcel Brisebois
Director
Museum of Contemporary Arts, Montréal

Raymond Vézina
Art Historian
Design Dept., University of Québec, Montréal

Michael Palmer
Senior Program Designer
ON/Q, Montréal

The following outlines the structure of the workshops, puts them in context and responds to some of the broader questions which emerged in the presentations and discussions.

The Role of Technology in the Museum Environment

The material has been organized into three sections:

- The first addresses the role of technology in the Museum environment.
- The second highlights two central issues.
- The third offers some context and options for the formulation of effective policy and the development and implementation of new technology.

Developmental

Some museum staff believe they cannot adequately judge the risks related to new technology because it is costly and constantly changing. The human resources of museums are invaluable. They need to feel empowered by technology, particularly during the process of changing from a manual to an electronic environment. The process itself must be well-planned, cost-effective, and responsive to change.

Recommendations

- To enhance and to protect the fundamental business of museums, their mandate and their mission.
- To integrate and harmonize a business plan with a technological plan.
- To provide training and a practical migration strategy in step with current technology and institutional expectations.
- To engage management support to ensure traditional roles of museum workers are not disenfranchised from the enterprise.

Management

The shift from analog to digital technology in the Museum environment holds great promise for the areas of collections development, preservation and interpretation. Through the use of information technology, the mandates of museums will be restructured and revived, and collections potential will be augmented significantly.

Through this new technology, information can be channelled into new layers of documentary and visual context which will complement the artifact and open new doors for research. The public will be given a range of information options, expanded or levelled to their needs.

Recommendations

- To offer viable solutions for questions related to what museums collect, how and in what form they can collect it.
- To provide a cost-effective means to store and preserve knowledge held in museums.

Creativity

Technology may be harnessed for its solutions and for its ability to offer innovative forms of expression and new rhythms of work. The collective memory held in museums will become a creative memory that is multifaceted, responsive to open-ended growth, and more accessible. The Museum environment and the institutional process will be refreshed and enriched. Museums and other heritage centres will become centres for technological development and experimentation. New products and concepts, such as pocket museums or museums without walls, will be explored and improved.

Recommendations

- To transport a creative memory outside the walls of the institutions.
- To "domesticate" the technology so that it becomes a tool for creativity and empowerment.

- To investigate new creative and interdisciplinary overlays to all business activities:
    - research,
    - conservation,
    - interpretation/presentation.

- To explore the open-architecture of information technology and create new information products by curators/museum personnel and to enable the museum visitor to use a self-directed discovery process to explore museum displays.

Collaboration

The disparities among museums must be eliminated. Those working in isolation, using advanced information systems and integrated media for educational purposes, must be linked with those who are looking to adopt such systems.

Recommendations

- To facilitate the exchange of information related to technology between museums through symposiums, conferences and other regional and national assemblies.

- To establish networks for museums to exchange information among themselves, with other public institutions, and with the public.

- To identify and acknowledge museum leaders in the technology field and to establish formal support links for training and information exchange within the museum community.

- To domesticate technology by introducing a mobile "techno-car" program which supports existing and/or introduces new compatible technology.

Marketing and Distribution

Technology should serve to tear down the walls of the museum and to refresh the museum experience. The resources of the museum must be delivered to the public in new forms. The public must be given greater accessibility to these resources.

Recommendations

- To apply integrated media in creative ways using the full range of museum resources, information and expertise.
- To forge productive alliances with private sector enterprise to create new integrated museum information packages for the museum community and for the public.
- To open up new markets for electronic museum information packages.

The Immediate Issues Related to Technology within the Museum Community

STANDARDS

In order to hold technology to its promises, it is crucial to have a common, creative language to foster and cement the vital interdependent relationship between heritage institutions, their knowledge and the public they serve. Museums must bring forward the issue of standardization of language and format, seek consensus and closure among themselves, and find a balance of development needs with user requirements between themselves and the private sector. Standards can be developed with diverse and innumerable characteristics bound within a simple base matrix (a snowflake has many forms but always six sides).

Museums want standards that express a minimum of three requirements:

- Compatibility within the museum community and transferability to the public sphere for use in the home environment.
- Capacity to support portable applications (platform independence) and durability.
- Long term cost-effectiveness.

The development and adoption of standards will benefit the museum enterprise and the public.

For the institution, standards will:

- Initiate a hierarchy of value/editorial standards for collections.
    - expand options for collections mandate,
    - improve and restructure the forms of collection,
    - define new boundaries for collections.
- Facilitate a creative process of development with the museum and in the marketplace leading towards museum-specific programs and products.
- Achieve effective integration of all levels of the institution; giving the collections new meaning, interpretation, and a value-added potential; offering new research potential through more effective branching and layering; and providing exhibitions/displays with more interactivity.
- Provide new creative tools for museum workers, improve the collective memory of the institution and retard information decay.
- Democratize the resources of the museums and archives by cloning information packages that could be shared through networks between institutions and other public agencies.
- Sharing resources among national and international institutions and agencies, in particular, developing countries.
- Establish distance-learning networks between museums and other nodes using satellite linkup or other technology to transmit educational materials - eliminate regional inequities and improve the quality of educational resources.

For the Public, standards will:

- Provide new educational tools that are acceptable and useful to the public and satisfy individual learning styles and rates.
- Enable the visitor to use technology to interpret objects, explore, and discover new meaning and to assume a greater responsibility for the museum experience.

COPYRIGHT

Museums need to provide access to their resources in various technological formats and forms. New information modules, software or packages must:

- Protect the rights of the original creators.
- Permit the production of these forms in cost-effective ways.

This issue can be resolved through:

- Dialogue with the private sector and with the government to establish viable technological parameters and solutions.
- Enactment of legislation that reflects the technological realities of the users and the marketplace.

Options for the Development of Policy and Integrated Technology

Effective policy on technology must evolve through several stages:

- Emerging from, and responding to, the practical needs of the institution and its client groups.
- Integrating institutional needs with private sector development.
- Gaining practical knowledge through the adoption and control of new technology.

The following steps are precursors to the formulation of national policies and to the development and adoption of technology in the museum environment.

1. All of the stakeholders must be identified. A list of such players includes:

Federal Government:	Communications Canada Treasury Board
Provincial Governments:	All departments related to culture, heritage, citizenship
Institutions:	Museums, libraries and archives
Public organizations/forums Canada first/Canadian based:	Technology producers, designers, creators, artists, production companies, manufacturers' representatives: video, audio, computer

2. Areas of convergence and common ground must be identified.

3. Dialogue and collaboration must be initiated.

Between Museums and Their Public

Museums need to find ways to work with the public and enlist their support through active presentation of the opportunities and possibilities offered by new technology.

- Networks will evolve through the functional need to share from the ground up between museums and their clients.

- Museums must define their requirements together and relate those requirements to their clients' needs (public).

Between Museums and the Private Sector

- Museums and technology developers/producers must begin their dialogue at the development stage of production.

- Museums must demonstrate that there are a limited number of base requirements necessary to fulfil museum standard needs.

- Museums must demonstrate there is a "museum market" for electronic products.

- Museums must guarantee access to, and training in, the new technology.

Between Museums and their Associations and Government

A national association/co-ordinating group should be constituted to serve the museums, heritage organizations, and other public and private sector interests in the following ways:

- Assisting and fostering the process of developing technology to improve access to information and communications.

- Facilitating dialogue on technological issues among public and private sector groups.

- Forging logical partnerships between the public and private sectors.
- Determining cost-effective ways and means for institutions to have access to, and train for, new technology.

Conclusion

The consensus was that technology in whatever form, conceptual or physical, should become an empowering force, a means to bring the needs of all institutions, public and private, into convergent streams. Above all, technology must become a facilitator for the creation, democratization, and dissemination of all forms of information.

Museums want to re-create themselves as modern institutions capable of effectively and efficiently fulfilling their mandates, able to provide the public with improved physical and intellectual access to resources and knowledge. Technology holds the potential for becoming a central bridgehead in this transformation.

Annexes

Evaluation Results

- Some 86 percent of respondents rated the Conference as being good to excellent.
- Some 92 percent felt their participation resulted in new professional contacts and 70 percent indicated they would cultivate these contacts in the future.
- A little more than half (54 percent) felt the Conference would affect how the private sector approaches changing technologies as they apply to culture whereas 61 percent felt the Conference proceedings could result in changes to public policy.
- A strong majority (85 percent) felt the department should repeat such an event with some improvements such as "ensuring more creators are present", "have a lower registration fee", "provide more time for discussion". The most encouraging comment, which was repeated by many, regarded the opportunity the Conference provided to meet "new people" in the different disciplines from across the country. This shows promise for future links and professional exchanges between participants.

Conference on Culture and Technology
May 28-29, 1991
Montreal
Bonaventure
Hilton Hotel

Conférence sur la culture et les technologies
28, 29 mai 1991
Montréal
Hôtel
Bonaventure Hilton

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Chairman Designate,
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The Department of Communications wishes to thank the following companies for their financial support of the Conference

Bell Canada
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Annex B

Program

Monday, May 27 - Evening

17:00 Registration La Promenade, Level F

19:00 Welcome cocktail Salon Westmount, Level F
Sponsored by Communications Canada

Tuesday, May 28 - Morning

08:00 Registration resumes La Promenade, Level F

09:00 Official Opening Salon Outremont, Level F
Jean Doré
Mayor of Montreal

- **Placing science in culture**
  Hubert Reeves
  Author and Astrophysicist, Paris

10:00 Plenary Salon Outremont, Level F
Showcase of New Technologies

- **Multimedia Technologies**
  George F. Singer
  Centre for experimenting and developing multimedia technologies (Echo), Université du Québec à Montréal in collaboration with Panasonic Inc., Montreal
- **Interactive video and laser disk technologies**
  Julie Stanfel
  National Film Board in collaboration with Technovision Inc., Montreal
- **Electronic Publishing**
  François Fortin
  Québec Amérique International, Montreal
- **Computer assisted choreography**
  Thecla Schiphorst
  Simon Fraser University in collaboration with Kinetic Effects Inc., Vancouver
- **As real as what? The Stakes in Virtual Realty**
  Michael Century
  Director of Program Development The Banff Centre for the Arts
  And
  Dr. Martin Tuori
  Vice-President Strategic Research, Alias Research, Toronto
- **Digital Audio Systems**
  Michel Brouillette
  Actuel-Réalisation MIDI, Montreal

Program

Moderator:
Helga Stephenson
Executive Director, Toronto's Festival of Festivals

12:00 Luncheon Salon Westmount, Level F

Debunking Broadband Services
Speaker: Nicholas Negroponte
Founder and Director of The Media Lab MIT, Cambridge

Afternoon

14:00 Workshops on The Creative Process

- **Audiovisual** Salon Outremont, Level F
  Marc Blandford
  Producer/Director, Montreal
  Doris Kochanek
  Computer Animation, National Film Board, Montreal
  Danielle Marleau
  Producer, Interactive programs, Videotron Plus (Videoway), Montreal
  Vincent John Vincent
  Vivid Effects Inc., Toronto

  Moderator:
  Richard Stursberg
  Senior Vice President, UNITEL, Toronto

  Rapporteur:
  Derrick de Kerchove
  Director, McLuhan Centre, Toronto
- **Sound Recording** Salon Verdun, Level F
  François Dompierre
  Composer, Montreal
  Paul Hoffert
  Composer and computer software developer, Montreal
  David Rokeby
  Interactive sound artist, Toronto
  Pierre Bertrand
  Song writer and composer, Montreal

  Moderator:
  David A. Basskin
  Managing Director Canadian Musical Reproduction Rights Agency Toronto

  Rapporteur:
  Patrick Butler
  Protax, Regina

Program

Publishing Salon Lasalle, Level F

Archibald Crail
Executive Director,
Saskatchewan Publishers' Group, Regina

Jacques Fortin
President, Québec Amérique International, Montreal

Linda Jones
Centre for the New O.E.D. and Text Research
University of Waterloo

Moderator:
Bruno Roy
Writer, Union des écrivains, Montreal

Rapporteur:
Peter Atwood
Director, Blizzard Publications, Winnipeg

Performing Arts Salon Lachine, Level F

Michel Lemieux
Multimedia artist, Montreal

Ken Hewitt
President,
Canadian Institute for Theatre Technology, Calgary

Nelson Gray
Co-director, Jumpstart, Burnaby, B.C.

Alex Gazale
Technical Director - Theatre,
National Arts Centre, Ottawa

Moderator:
Robert Lepage
Artistic Director, French Theatre,
National Arts Centre, Ottawa

Rapporteur:
Anna Stratton
Arts Producer, Toronto

Museums (Archives) Salon le Portage, Lobby Level

Hélène Lamarche
Head, Educational and Cultural Service
The Montreal Museum of Fine Arts

John Lomoro
Chief Informatics Technology,
Museum of Civilization, Ottawa

Louise Guay
Public Technologies, Montreal

Renée Bourassa,
President and CEO, Le Groupe Nexus, Montreal

Program

Moderator:
Bob Christie
Christie Communications Alberta Inc.

Rapporteur:
Douglas Leonard
Chief Curator, Human History Division
Manitoba Museum of Man and Nature

Evening

17:00 Cocktail Place Bonaventure, Production '91
Sponsored by National Film Board

19:00 Gala Dinner Salon Westmount, Level F
A special award will be presented by the Minister of Communications of Canada, the Honourable Perrin Beatty, to Mr. Roman Kroitor, one of the founders of the IMAX technology for his outstanding contribution to culture and technology.

Wednesday, May 29 - Morning

09:00 Workshops on Distribution and Marketing Processes
(Moderators and rapporteurs will be the same as the previous day)

Audiovisual Salon Outremont, Level F

Stuart Cobbett
President, Astral Film Enterprises Inc., Montreal

Michael Allen
Vice-president Regulatory Affairs
Rogers Communications Inc., Toronto

Linda Rankin
President and CEO, Telesat Enterprises, Ottawa

Charles Terreault
Assistant Vice-president Technology,
Bell Canada, Montreal

Sound Recording Salon Verdun, Level F

Claude Brunet
Lawyer, Fasken Martineau Davis, Montreal

Brian Robertson
President,
Canadian Recording Industry Association, Toronto

Paul-Émile Beaulne
Executive Vice-president,
Radiomutuel/Musique Plus, Montreal

Jason Sniderman
Vice-president, Roblan Distributors, Toronto

Annex B

Program

- **Publishing** Salon Lasalle, Level F

  Daniel Rodrigue
  Electronic Publishing

  John D. Lowry
  Chairman, Discis Knowledge Research Inc., Toronto

  James de Gaspé Bonar
  Vice-president Publishing, Groupe Sogides, Montreal

- **Performing Arts** Salon Lachine, Level F

  David Langer
  Executive Producer, National Arts Centre, Ottawa

  Danielle de Fontenay
  Managing Director, Carbone 14, Montreal

  Alain Paré
  Director General, CINARS, Montreal

  Peter Feldman
  Executive Director, CAPACOA, Ottawa

- **Museum (Archives)** Salon Le Portage, Lobby Level

  Marcel Brisebois
  Director, Museum of Contemparary Arts, Montreal

  Michael Palmer
  Senior Program Designer, ON/Q, Montreal

  Raymond Vézina
  Art Historian, Design Department
  Université du Québec à Montréal

  Cynthia Durance
  Director Archival Standards
  National Archives of Canada, Ottawa

12:00 Luncheon Salon Westmount, Level F

Speaker: The Honourable Perrin Beatty
Minister of Communications of Canada

Afternoon

14:00 Plenary Session: Salon Outremont, Level F

Chair: Dr. David Godfrey
Author and Publisher, Professor of Creative Writing
University of Victoria

Moderators and Rapporteurs will report on workshop sessions. Discussions will follow.

16:20 Closing Remarks

General Information

- **Media Room**
  Salon St-Lambert, Level F
- **Secretariat**
  Salon St-Pierre, Level F
- **Speakers**
  Salon St-Laurent, Level F
- **Special Exhibitions** *(from May 28, noon)*

  ON/Q Corporation "CDI Technology"
  Salon St-Michel, Level F

  Groupe Nexus "Musée numérique sur CD-Rom"
  Salon Léonard, Level F

  CEDROM Technologies Inc.
  "Banque de données dans l'édition"
  Salon Longueuil, Level F

- **Production '91**

The 3rd Annual Gathering of Sound and Image Professionals will be held simultaneously at the Place Bonaventure Exhibition Hall located below the Montreal Bonaventure Hilton. Conference participants will enjoy free admission to Production '91 with their name badges.

- **Images du futur '91**

Conference participants are invited to attend, at no cost, the official opening on May 30 at 8 p.m. Taking place at the Old Port, this is the largest exhibition of its kind in the world, bringing together dozens of artists and cultural institutions.

- **Registration and Information Desk**

The Conference registration and information desk is situated on the Promenade, Level F of the Montreal Bonaventure Hilton and will be open from 17:00 to 21:00 on May 27 and from 08:00 on May 28 and May 29.

- **Messages**

Messages will be posted near the registration and information desk. The Conference telephone / fax number is (514) 397-1617.

- **Simultaneous Interpretation**

The Conference's official languages are French and English. Simultaneous interpretation will be offered during the opening ceremony, keynote addresses, plenary sessions, and workshops. Receivers are available at a special table set up near the registration area.

- **Accompanying Persons**

Accompanying persons are invited to attend the opening welcome cocktail (May 27) and the gala dinner (May 28). Tickets may be obtained at the registration and information desk on the Promenade, Level F. Cocktail $25, Gala dinner $75.

List of Participants

Mr. S. Nisar Ahmed
Department of Communications
Ottawa, Ontario

Monsieur Pierre F. Alepin
Vitri Robots and Vehicles Inc.
Boucherville, Québec

Madame Louise Allard
Académie canadienne du cinéma et de la télévision
Montréal, Québec

Madame Lise Aubut
SODRAC
Montréal, Québec

Madame Thérèse Baribeau
Cortexte Enr. / Centre Saint-Laurent
Longueuil, Québec

Monsieur Philippe Baylaucq
Josette Gauthier Communications
Westmount, Québec

Monsieur Joseph Beaubien
A.Q.D.E.F.
Montréal, Québec

Monsieur Denis Beauchamp
CÉGEP du Vieux Montréal
Montréal, Québec

Madame Nicole Beaulac
Société Radio-Canada
Montréal, Québec

Madame Brigitte Beaulne
Conférence canadienne des arts
Otttawa, Ontario

Monsieur Mathieu Bejot
Ambassade de France
Ottawa, Ontario

Monsieur Michel Bélanger
Les Disques Audiogramme Inc.
Montréal, Québec

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Canadian Native Arts Foundation
Toronto, Ontario

Monsieur Michel Berdnikoff
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Ottawa, Ontario

Monsieur Pierre Bergeron
Novalis
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Suresnes, Cedex, France

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Galerie d'art de l'Université de Moncton
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Québec, Québec

Madame Elie Cohen
CNRS, France

Monsieur Roger Collet
Ministère des Communications
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Monsieur Jacques Collin
Musée de la civilisation
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Théâtres Unis Enfance Jeunesse
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Harry Cuff Publications Ltd.
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Madame Michelle d'Auray
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Canadian Broadcasting Corporation
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Ms. Gaylene Dempsey
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Ms. Patricia Finlay
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Mr. Paul Fleck
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Mr. Terry Flood
Terry Flood Management Ltd.
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North Vancouver, B.C.

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U.Q.T.R.
Yamachiche, Québec

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National Library of Canada
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Toronto, Ontario

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4C Technologies
California

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Canadian Museum of Nature
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Ms. Kim Wrigley
Department of Justice
Regina, Saskatchewan

Mrs. Joyce Zemans
Canada Council
Ottawa, Ontario

List of Speakers' Presentations

Presented at the Conference on Culture and Technology May 28-29, 1991

These documents presented in the author's language (FR-French and ENG-English) are available upon request. Please check ☑ the documents of your choice and forward your request to the following address:

Information Services
Department of Communications
Journal Tower North
300 Slater Street
Ottawa, Ontario
K1A 0C8

Hubert Reeves *Author and astrophysicist, Paris*	*Placing Science in Culture* (FR)	☐
George F. Singer *Université du Québec à Montréal in collaboration with Panasonic Inc., Montréal*	*Multimédia Technologies* (FR)	☐
Julie Stanfel *National Film Board in collaboration with Technovision Inc., Montréal*	*Interactive Video and Laser Disk Technologies* (ENG)	☐
François Fortin *Québec Amérique International, Montréal*	*Electronic Publishing* (FR)	☐
Thecla Schiphorst *Simon Fraser University in collaboration with Kinetic Effects Inc., Vancouver*	*Computer Assisted Choreography* (ENG)	☐
Michael Century *The Banff Centre for the Arts and Martin Tuori Alias Research, Toronto*	*As Real as What? The Stakes in Virtual Reality* (ENG)	☐

Workshops on Audiovisual

Marc Blandford	*Producer/Director, Montréal* (ENG)	☐
Doris Kochanek	*National Film Board, Montréal* (ENG)	☐
Danielle Marleau	*Vidéotron Plus (Vidéoway), Montréal* (FR)	☐
Vincent John Vincent	*Vivid Effects Inc., Toronto* (ENG)	☐
Stuart Cobbett	*Astral Film Enterprises Inc., Montréal* (ENG)	☐
Michael Allen	*Regulatory Affairs Rogers Communications Inc., Toronto* (ENG)	☐
Sue Knott	*Telesat Enterprises, Ottawa* (ENG)	☐
Charles Terreault	*Bell Canada, Montréal* (FR)	☐

(Cut along dotted line)

List of Speakers' Presentations

Workshops on Sound Recording

Paul Hoffert	*Composer and computer software developer, Montréal* (ENG)	❑
David Rokeby	*Interactive sound artist, Toronto* (ENG)	❑
Pierre Bertrand	*Song writer and composer, Montréal* (FR)	❑
Claude Brunet	*Fasken Martineau Davis, Montréal* (FR)	❑
Brian Robertson	*Canadian Recording Industry Association, Toronto* (ENG)	❑
Paul-Émile Beaulne	*Radiomutuel/Musique Plus, Montréal* (FR)	❑
Jason Sniderman	*Roblan Distributors, Toronto* (ENG)	❑

Workshops on Publishing

Archibald Crail	*Saskatchewan Publishers' Group, Regina* (ENG)	❑
Jacques Fortin	*Québec Amérique International, Montréal* (FR)	❑
Linda Jones	*Centre for the New Oxford English Dictionary, University of Waterloo* (ENG)	❑
Daniel Rodrique	*Electronic Publishing* (FR)	❑
James de Gaspé Bonar	*Groupe Sogides, Montréal* (FR)	❑

Workshops on Performing Arts

Michel Lemieux	*Multimedia, Montréal* (FR)	❑
Ken Hewitt	*Canadian Institute for Theatre Technology, Calgary* (ENG)	❑
Nelson Gray	*Jumpstart, Burnaby, British Columbia* (ENG)	❑
David Langer	*National Arts Centre, Ottawa* (ENG)	❑
Danielle de Fontenay	*Carbone 14, Montréal* (FR)	❑
Alain Paré	*CINARS, Montréal* (FR)	❑
Peter Feldman	*CAPACOA, Ottawa* (ENG)	❑

Workshops on Museums

Hélène Lamarche	*The Montréal Museum of Fine Arts* (FR)	❑
John Lomoro	*Museum of Civilization, Ottawa* (ENG)	❑
Louise Guay	*Public Technologies, Montréal* (FR)	❑
Renée Bourassa	*Le Groupe Nexus, Montréal* (FR)	❑
Marcel Brisebois	*Museum of Contemporary Arts, Montréal* (FR)	❑
Raymond Vézina	*Université du Québec à Montréal* (FR)	❑
Cynthia Durance	*National Archives of Canada, Ottawa* (ENG)	❑

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