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# **EVALUATION OF CANADA'S DIGITAL COLLECTIONS PROGRAM**

## **Final Report**

**Audit and Evaluation Branch**

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### *NOTE:*

*Minor editorial changes were made to this report in order to prepare the document for posting to the Internet (including removal of standard Appendices such as list of interviewees and questionnaires). Readers wishing to receive a copy of the original version of this report should contact the Audit and Evaluation Branch at Industry Canada*

## **EXECUTIVE SUMMARY**

Canada's Digital Collections (CDC) program has two central aims:

- ▶ To provide young Canadians in all parts of Canada with initial work experience in the multimedia sector; AND promote the development of the Canadian multi media industry and, in particular, position new youth-run enterprises for success in the marketplace
- ▶ To provide wider access to Canadian material of public interest via the Information Highway; and demonstrate the productivity enhancement benefits of digitization.

### **Methodology**

This evaluation of CDC program used the following data collection methods to answer key evaluation framework questions regarding the effectiveness and outcomes of the program:

- ▶ interviews with 10 key informants of the program as identified by Industry Canada between March and May 2002
- ▶ fax survey of 59 contractors (18% response rate) and 42 custodians (16% response rate) between April and June 2002
- ▶ telephone interviews with 575 youth participants (response rate of 47%) between March and June 2002
- ▶ analysis of data collected from 249 visitors to the CDC web site in 1998
- ▶ a document review of on-line materials from the CDC web site.

### **Rationale for CDC**

Key informants generally believe that CDC agrees well with the Connectedness Agenda. Two respondents explicitly said that they felt the CDC program helped shape the Connectedness Agenda, and most think that the program has remained relevant or has increased in the past five years. Several respondents noted that the program's relevance was due to its usefulness as a tool for providing young people with experience and addressing the needs of "at-risk" youth.

Just over half of the contractors (56%) and two-thirds of custodians (69%) surveyed indicated that they received additional funding, resources, or support from other government programs for the purposes of digitizing material. The majority indicated that the support was financial (73% of contractors and 86% of custodians).

Most key informants believe that discontinuing the Digital Collections would have a negative impact. The most common concern was that terminating Digital Collections would deprive young people of opportunities to gain work experience in multi media. Others said that ending the program would harm the heritage-preservation cause, as many of the existing collections would never have been digitized without the program.

At the same time, several key informants pointed out that Canadian Heritage was about to embark on a major program of digitizing Canadian historical and cultural content. They see CDC as having initiated the program and demonstrated the potential for digitizing content. They believe that CDC can safely turn to other objectives.

The majority (54% of contractors and 81% of custodians surveyed) indicated that they were planning other digitization projects. Of those planning future projects, half indicated that they were doing so without any CDC support.

Two-thirds (66%) of youth participants surveyed said that they had found work as a result of their CDC involvement, and 40% said that the CDC project was very helpful in finding the work.

### **Program delivery**

Generally, key informants expressed satisfaction with the level of support received from CDC and Industry Canada. However, one respondent said that while support exists, it is insufficient for their needs. Another was satisfied with the application process and guidelines but indicated that promotional support was lacking.

Most contractors surveyed (89%) agreed that Industry Canada provided their organization with sufficient guidance and information to successfully fulfil its contracts and that custodians provided them with sufficient guidance in terms of material selection and content arrangements (82%).

Youth participants reported that they received training in technical (76%) and business management-related issues (41%). This indicates that a sizable portion of youth participants are learning business skills in addition to technical skills.

Key informants stated that CDC's main web site acts as a gateway because all collections are required to be listed there and also with major search engines, which in turn, helps generate traffic. Bulletins are also issued to librarians and archivists.

A few key informants argued that CDC should be promoted more vigorously. One respondent suggested cross-marketing with the Virtual Museum of Canada as a possible option.

When contractors were asked whether the lack of information on government programs was an important obstacle in their organization's plans for business expansion, half (50%) said that this was not an important issue, 30% indicated that it was, and 20% did not know.

There was widespread agreement among key informants on the effectiveness of the selection process. Respondents praised the clear criteria, the fairness of the process, and the use of adjudicators to settle disagreements.

## **Results**

Key informants reported positive feedback on the CDC program from custodians and contractors. However, a few informants said that the feedback also pointed to needed improvements in the

contribution agreement. Improvements were said to be needed because the process has become too bureaucratic.

Of those contractors that did multi media work before becoming involved in CDC, about half indicated that their organization had experienced an increase in multi media activity as a result of being involved in the CDC program.

More than half of contractors indicated that the CDC program had increased their organization's visibility or exposure in *establishing new opportunities or alliances with cultural institutions* (63%) and *new networks at the local level* (54%).

More than half of custodians indicated that as a result of the CDC program, they had either established or are considering *establishing new opportunities or alliances with cultural institutions* (74%), *new networks at the local level* (60%), and *joint ventures with other content providers* (62%).

When asked what their main activity has been since the project ended, most participants said that they were either working full-time or part-time (44%), pursuing studies (40%), or both working and pursuing studies (10%). Of those working, the majority (62%) said that it was in an information technology (IT) or multi media-related field. Of those pursuing studies, about two-thirds (65%) were doing so at the university level.

All youth participants were asked if involvement in the project had an influence on their educational path or their career path. Just over half stated that the project had *somewhat* or *a great deal* of influence on both their educational and career paths.

A large majority of youth participants also agreed that involvement with CDC through the project *made them more aware of career opportunities in the education, heritage, or cultural fields* (73%); *made them understand what is needed as a professional in the workplace* (83%); and *increased their understanding of business and entrepreneurship* (67%).

Nearly all youth participants surveyed (94%) stated that their experience with the project met or exceeded their needs. Approximately one-fifth stated that they had started a multi media

or information technology business (14%) or intended to do so (5%) as a result of their participation in CDC.

Both contractors and custodians were asked to rate the CDC program in terms of its usefulness in the *production of new digital materials* and the *preservation of cultural and historical heritage*. For both of these items, more than three-quarters of the contractors and custodians (ranging from 76% to 81%) rated the CDC program as *very useful*.

Key informants mentioned that the collections are useful from the point of view of promoting Canadian heritage and creating quality Canadian content on the Internet. Respondents mentioned that the content reminds viewers of Canada's history and roots and creates a sense of national identity and self-awareness.

### **Lessons learned**

Key informants cited the following as strengths of the program:

- ▶ relatively little red tape, application process is streamlined
- ▶ offering training opportunities and good content
- ▶ promoting Canadian culture
- ▶ creating professional relationships
- ▶ helpfulness of CDC personnel.

Key informants also cited weaknesses of the program:

- ▶ Payment structure and contribution agreements are irritants.
- ▶ Bureaucracy when modifications to project contract terms are required.
- ▶ The focus is too narrow; it should fund a wider range of collections.
- ▶ Funding is delayed or inconveniently timed.
- ▶ Salary and funding levels are too low, especially for smaller organizations, as additional support is required to supervise the project; for many, current staffing levels are insufficient for this task, thus reducing participation by these groups.
- ▶ Contractors exploit the program for their own benefit.

Custodians were asked to identify what they thought was the CDC program's greatest positive element. Most respondents identified youth training opportunities (36%) or providing greater access to Canadian history online (36%) as the key positives.

Custodians were also asked to identify what they thought was the CDC program's greatest negative element. Most common issues raised included funding guidelines, per hour requirements, and budget constraints (29%) and bureaucracy, paper work, project administration, and reporting (19%).

Key informants offered the following suggestions for improvement of the CDC program, many of which attempt to address the weaknesses uncovered above.

- ▶ More funding should be made available for upgrading existing projects, raising wages, and doing more promotion.
- ▶ Reduce paperwork and bureaucracy.



- ▶ Content quality, particularly in the application process, should be better monitored.
- ▶ The program should target specific youth groups, such as the disabled, and those in inner cities.
- ▶ The program needs new objectives or to look into new areas (such as digitizing corporate or community collections), however, corporations should be able to fund their own collections.

Over half (57%) of custodians offered improvements that could be made to the CDC program. The most commonly mentioned improvements were *changes to funding/operating guidelines/management* (33%) and *increased funding/access to funding/broadening of eligible expenses* (21%).

### **Conclusions**

The most cost-effective CDC projects have the following attributes:

- ▶ strong planning and conceptualization from the outset
- ▶ reliance on accurately researched information
- ▶ management by an experienced contractor
- ▶ involvement of youth participants who are highly skilled in web site creation, are highly motivated, and possess a positive attitude and a keen interest in the subject matter.

### **Recommendation**

#### **1. The CDC Program should be maintained**

Those involved in the program are generally satisfied with CDC. This is displayed in the fact that most contractors and custodians (86%) rated the CDC program as “good” or “excellent,” and nearly all youth participants (94%) said that the particular project they were involved with through CDC met or exceeded their expectations. Key informants mentioned that CDC is not only for training and providing youth with valuable work and business skills, but it also promotes Canadian heritage and creates quality historical content for the Internet.

**Recommendation**

- 2. Consideration should be given to two options for broadening the CDC program:**
- ▶ **migrating it to departments/agencies that are more directly involved with culture.**
  - ▶ **expanding the involvement of departments, agencies, and even private organizations to increase the range of collections.**

However, it is likely that diminishing returns may be encountered in that many archive collections have been digitized. The remaining collections of significance are likely larger, and in some sense, more significant. Digitizing them may well require more sustained resources than can be managed over the short time available to participants in the CDC program.

Currently, formal editing or quality control processes exist and existing custodians appear to have been able to maintain quality control. However, with larger, more significant collections, a need for formal editorial control may emerge.

**Recommendation**

- 3. Industry Canada or some other federal department/agency should maintain the “portal” for all collections. This should not preclude links to other sites to increase access to collections.**

If the program evolves to a wider group of sponsors or migrates to a few specific agencies, consideration should be given to ensuring that the existing collections are not “lost.” A danger exists in creating a diffuse initiative without standards and a wide dispersion.

**Recommendation**

- 4. Industry Canada or the future sponsor of CDC will need to allocate resources to maintain and upgrade popular, high quality sites.**

Several observers noted that the limited budgets available created a ceiling or “capped” the resolution of the collections. This limited their use to public education and general information and precluded their industry or professional use. At the same time, technological advances in multi media may create a situation where older collections may appear dated, and at some point in the

future they may become less accessible as newer viewing technologies become standard.

**Recommendation**

- 5. Consideration should be given to awarding a management support fee for smaller organizations with qualified collections. Care is needed to ensure that this fee is reserved for the small, non-profit, or community organization.**

A recurrent complaint was that the application process was bureaucratic. Further, for smaller organizations, the cost of making the proposal and managing the process required additional staffing resources. The terms of the Program do not allow for support for organizations to hire additional management support. According to a few respondents, this precluded some organizations with good collections from participating.

**Recommendation**

- 6. The department ultimately responsible for CDC should increase its efforts to publicize CDC, thus raising the market profile of the custodians and their collections and generating greater public interest in the collections as an educational/informational resource.**

Several key informants noted that the CDC Program is not well known, especially in light of how it could serve the educational market.

**Recommendation**

- 7. Industry Canada needs to develop a strategy for ongoing maintenance of the collections.**

An important issue in the maintenance of web sites as technology evolves. Overtime, excellent web sites may become obsolete as new Internet techniques become available. This can compromise the investment into the digital collections.

## **1.0 Introduction**

Prairie Research Associates (PRA) Inc. was engaged by Industry Canada to conduct an evaluation of Canada's Digital Collections (CDC) program.

CDC (formerly known as SchoolNet Digital Collections) is an Industry Canada program that awards contracts of up to \$25,000 each to enable firms, organizations, and individuals to employ teams of young people (15 to 30 years of age) to undertake digitization work and produce web sites to display the material they have digitized on the World Wide Web. CDC program aims to: provide young Canadians in all parts of Canada with initial work experience in the multi media sector; promote the development of the Canadian multi media industry and, in particular, position new youth-run enterprises for success in the marketplace; provide wider access to Canadian material of public interest via the Information Highway; and demonstrate the productivity enhancement benefits of digitization.

This evaluation draws on the framework prepared by PRA in 1996 and revised in 2002, and the work completed as part of the evaluation of the Youth Employment Strategy. It will respond to the evaluation issues, questions, and indicators (see Appendix A) that have a designated priority (1, 2, or 3) and offer responses to other issues/questions as may be possible within the data available and time limitations for the evaluation.

## **2.0 Methodology**

This evaluation of the CDC program employs various methods of data collection to answer key questions from an evaluation framework as to the effectiveness and outcomes of the program. PRA conducted and analyzed much of the data first-hand, but also relied on Industry Canada to provide additional data sources to complete the evaluation. What follows is a brief description of the data sources and the methods employed in collecting them.

### **2.1 Key informants**

PRA conducted interviews with 10 key informants of the program as identified by Industry Canada. These interviews were conducted either in-person or over the telephone between March and May 2002. A sample of the interview guide, an overall summary of the interviews, and list of those individuals interviewed are provided in Appendix B.

### **2.2 Contractors and Custodians**

PRA faxed surveys to 333 project contractors and 259 project custodians between April and June 2002. The questionnaire was offered in French or English, based on the respondent's preference. After a second wave of reminder faxes were sent to increase the completion rate, PRA received a total of 59 contractor (18% response rate) and 42 custodian (16% response rate) completed surveys. Samples of the instruments for the contractor and custodian surveys, as well as summary tables for all questions asked are provided in Appendix C.

### **2.3 Youth participants**

A computer aided telephone interviewing (CATI) survey was conducted from March to June 2002. The survey was administered in either French or English, depending on the respondent's preference. In total 1,486 telephone numbers were dialed and 575 youth participants completed the interview. The table below shows the distribution of the participants by year involved in the program.

<b>Table 1: Participants Contacted by year involved in program</b>		
<b>Year</b>	<b>Called (n=1,486)</b>	<b>Completed (n=575)</b>
1997	17%	16%
1998	29%	29%
1999	20%	20%
2000	16%	18%
2001	16%	15%
2002	2%	3%
Source: 2002 PRA Youth Participant Survey		

The largest portion of participants, approximately one-half (49%), came from projects undertaken in 1998 and 1999. The proportion of those called to those who completed surveys is very similar.

The response rate, calculated on total eligible numbers (n=1,220) was 47% and the refusal rate, calculated on the total number of respondents asked to participate (n=605) was only 5%. The table below provides a detailed breakdown of the outcome of all calls made to participants.

<b>Table 2: Call record for CDC Youth Participants Survey: March to June 2002</b>		
	<b>n</b>	<b>%</b>
<b>ATotal numbers attempted</b>	<b>1,486</b>	<b>100.0%</b>
1. Not in service	227	15.0%
2. Fax	32	2.0%
3. Business	7	0.0%
Remaining	1,220	82.0%
<b>BTotal eligible numbers</b>	<b>1,220</b>	<b>100.0%</b>
4. Busy	6	0.0%
5. Answering machines	141	12.0%
6. No answer	57	5.0%
7/8. Language/illness/incapability	73	6.0%
9. Selected/eligible respondent not available/No longer at this residence	338	28.0%
Remaining	605	50.0%
<b>CTotal asked</b>	<b>605</b>	<b>100.0%</b>
10. Household refusal	13	1.0%
11. Respondent refusal	9	1.0%
12. Qualified respondent break off	8	1.0%
Remaining	575	95.0%
<b>D Co-operative contacts</b>	<b>575</b>	<b>100.0%</b>
13. Disqualified	0	0.0%
14. Completed interviews	575	95.0%
<b>Refusal rate = (10+11+12)/C</b>	<b>30</b>	<b>5.0%</b>
<b>Response rate (D/B)</b>	<b>575</b>	<b>47.0%</b>
Source: 2002 PRA Youth Participant Survey		

The questionnaire used in the Youth Participant Survey, and summary tables for all questions asked are provided in Appendix D.

## **2.4 Industry Canada Data Sources**

In addition to the direct data collection and analysis PRA performed, other sources of information used in this evaluation include an analysis of Canada's Digital Collection (CDC) web site. A summary of what was found on the web site has been provided in Appendix E. Industry Canada also provided data from a 1998 CDC web site online survey administered to every tenth visitor to the site. In total, responses from 249 visitors were collected, and summary tables of the findings are also provided in Appendix E.

Industry Canada was going to provide further data on youth entry and exit surveys administered to participants while they were in the program, as well as contractor and custodian project information. Unfortunately however, this information was not available to PRA in an analyzable form before the evaluation concluded.



### **3.0 Evaluation issues**

The following table represents evaluation issues, questions, and indicators (new and existing from the 1996 Evaluation Framework) that have a designated priority (1, 2, or 3). This issues provided a guide for the CDC program evaluation. Addressing these issues was deemed feasible at the outset of the evaluation, given the budget limitations. A complete listing of all evaluation issues can be found in Appendix A.

<b>Table 3: Evaluation Issues, Questions and Indicators</b>				
<b>Issues</b>	<b>Questions</b>	<b>Indicators</b>	<b>Data Sources</b>	<b>Priority</b>
<b>Relevance/Rationale: To what extent is there a need for the CDC program?</b>				
PRA–Evaluation Framework (section – Management)	4. If CDC ceased, <i>what would be the impact?</i>	<ul style="list-style-type: none"> <li>• responses of IC, contractors, custodians, youth and users</li> <li>• analysis of program effects on contractors, custodians, youth and users</li> </ul>	<ul style="list-style-type: none"> <li>• interviews with IC, contractors, custodians, youth and users</li> <li>• surveys of IC, contractors, custodians, youth and users</li> </ul>	1
	5. Where does CDC fit in <i>other public sector funding</i> aimed at the development of ITC skills and multi media Canadian content?	<ul style="list-style-type: none"> <li>• responses of IC</li> </ul>	<ul style="list-style-type: none"> <li>• interviews with IC</li> <li>• surveys of IC</li> <li>• file and document review</li> </ul>	1
<b>Program design and delivery: To what extent is the CDC program structure and delivery appropriate?</b>				
PRA-Evaluation Framework (section – Management)	16. Have CDC and Industry Canada provided <i>sufficient support</i> to contractors?	<ul style="list-style-type: none"> <li>• responses of IC and contractor</li> </ul>	<ul style="list-style-type: none"> <li>• contractor survey</li> <li>• management interviews</li> <li>• file review</li> </ul>	2
	17. Have <i>custodians provided adequate direction</i> in terms of selecting heritage material, reviewing text, and ensuring that the overall site represents the heritage material appropriately?	<ul style="list-style-type: none"> <li>• project data</li> <li>• responses of contractors and experts</li> </ul>	<ul style="list-style-type: none"> <li>• project reports</li> <li>• contractor survey</li> <li>• expert review of sites</li> </ul>	1
	18. Have contractors <i>supported the digitization</i> teams with respect to training and advice on technical issues and business management?	<ul style="list-style-type: none"> <li>• responses of contractors and participants</li> </ul>	<ul style="list-style-type: none"> <li>• contractor survey</li> <li>• participant survey</li> </ul>	2
PRA Evaluation Framework (section - Dissemination of Canadian Content)	19. How does CDC <i>promote access to content</i> on the Information Highway (a pillar of government policy)?	<ul style="list-style-type: none"> <li>• responses of IC</li> <li>• web site</li> </ul>	<ul style="list-style-type: none"> <li>• management interviews</li> <li>• project files</li> <li>• analysis of records/logs</li> </ul>	1

<b>Table 3: Evaluation Issues, Questions and Indicators</b>				
<b>Issues</b>	<b>Questions</b>	<b>Indicators</b>	<b>Data Sources</b>	<b>Priority</b>
PRA-Evaluation Framework <i>(section – Impact on Heritage, Custodian Institutions and Education)</i>	20. <i>Who is visiting</i> the collections and how are viewers using what they find? What feedback has been received from users?	<ul style="list-style-type: none"> <li>• responses of IC, custodians, and users</li> </ul>	<ul style="list-style-type: none"> <li>• survey of IC and custodians</li> <li>• feedback information</li> </ul>	1
	21. <i>Are educational systems</i> (provincial departments, school boards) aware of CDC? If yes, are they taking any steps <i>to participate and/or market</i> the educational resources to classroom teachers? If not, why not?	<ul style="list-style-type: none"> <li>• responses of management</li> <li>• assessment of web sites</li> </ul>	<ul style="list-style-type: none"> <li>• management interviews</li> </ul>	1
<b>Progress/Success: What results (intended or unintended) have been achieved by CDC?</b>				
PRA-Evaluation Framework <i>(section – Youth Skills Development – of the framework)</i>	25. To what extent has CDC provided participating students and unemployed youth <i>with computer skills</i> (e.g., multi media, database development, HTML)?	<ul style="list-style-type: none"> <li>• participant responses</li> <li>• contractor responses</li> </ul>	<ul style="list-style-type: none"> <li>• participant survey</li> <li>• contractor survey</li> </ul>	1
	26. Have participating students/youth <i>increased their skills/awareness</i> of multi media and information technology? What spillovers have occurred with participating students/youth in the community?	<ul style="list-style-type: none"> <li>• participant responses</li> <li>• contractor responses</li> </ul>	<ul style="list-style-type: none"> <li>• participant survey</li> <li>• contractor survey</li> </ul>	1
	27. How many participating students/youth <i>have been employed</i> in computer and multi media projects? How <i>many weeks of experience</i> have been generated? Have students found <i>additional work</i> in multi media, information technologies in the medium term (12 months)?	<ul style="list-style-type: none"> <li>• counts of participants</li> <li>• contractor responses</li> </ul>	<ul style="list-style-type: none"> <li>• project application</li> <li>• project Summary</li> <li>• contractor survey</li> </ul>	2

<b>Issues</b>	<b>Questions</b>	<b>Indicators</b>	<b>Data Sources</b>	<b>Priority</b>
	28. How has participation in the project <i>changed career education choices</i> ? How many participating students/youth have decided <i>to pursue additional education</i> ? Has their participation in CDC encouraged participating students/youth <i>to remain in school or pursue more training</i> than they were planning prior to the project?	<ul style="list-style-type: none"> <li>• participant responses</li> </ul>	<ul style="list-style-type: none"> <li>• participant survey</li> </ul>	2
	29. Have participating students/youth developed <i>a heightened awareness of career opportunities</i> in multi media, information technology or entrepreneurship?	<ul style="list-style-type: none"> <li>• participant responses</li> </ul>	<ul style="list-style-type: none"> <li>• participant survey</li> </ul>	2
	30. Has employment in the project assisted students <i>to acquire attitudes and behaviour consistent with a technical and professional workplace</i> (e.g., ability to work in teams, to meet deadlines, accept direction as well as work independently, take pride in their work, etc.)	<ul style="list-style-type: none"> <li>• participant responses</li> <li>• contractor responses</li> </ul>	<ul style="list-style-type: none"> <li>• participant survey</li> <li>• contractor survey</li> </ul>	1
PRA-Evaluation Framework (section – <i>Entrepreneurship Business Development/ Contractors</i> )	31. How has participation in CDC <i>increased</i> participating students'/youth's <i>understanding of business and entrepreneurship</i> ? How many participating students/youth express interest/intent to start their own business venture in the information sector? In other areas?	<ul style="list-style-type: none"> <li>• participant responses</li> </ul>	<ul style="list-style-type: none"> <li>• participant survey</li> </ul>	2

<b>Table 3: Evaluation Issues, Questions and Indicators</b>				
<b>Issues</b>	<b>Questions</b>	<b>Indicators</b>	<b>Data Sources</b>	<b>Priority</b>
	32. How many participating students/youth <i>have pursued employment</i> in information technology industries? How many have <i>started new businesses</i> ? What <i>incremental income</i> has been created for student/youth entrepreneurship ventures?	<ul style="list-style-type: none"> <li>• participant responses</li> <li>• contractor responses</li> </ul>	<ul style="list-style-type: none"> <li>• participant survey</li> <li>• contractor survey</li> </ul>	3
	33. Have existing contractor firms <i>expanded their business and/or their reach</i> as a result of their experience in CDC?	<ul style="list-style-type: none"> <li>• contractor responses</li> </ul>	<ul style="list-style-type: none"> <li>• contractor survey</li> </ul>	3
PRA-Evaluation Framework ( <i>section – Impact on Heritage, Custodian Institutions and Education</i> )	34. How <i>many collections</i> have been digitized? <i>What type</i> of collections have been digitized? How <i>many pages</i> of material have been published?	<ul style="list-style-type: none"> <li>• management responses</li> <li>• policy background</li> </ul>	<ul style="list-style-type: none"> <li>• project files</li> <li>• management interviews</li> </ul>	1
	35. Are the digital collections of Heritage <i>significant/useful</i> ? That is, would collections otherwise be lost? Do they provide access to Canadian content?	<ul style="list-style-type: none"> <li>• custodian responses</li> </ul>	<ul style="list-style-type: none"> <li>• custodian report and survey</li> <li>• views of experts</li> </ul>	1
<b>Lessons learned and improvements: What are the lessons learned and how can the program be improved?</b>				
PRA-Evaluation Framework ( <i>section – Cost-Effectiveness</i> )	40. Does the program provide <i>a cost effective method for meeting its goals</i> ? What changes would make the program more efficient while maintaining program quality/impact?	<ul style="list-style-type: none"> <li>• cost data</li> <li>• project attributes</li> <li>• custodian responses</li> </ul>	<ul style="list-style-type: none"> <li>• project files</li> <li>• project reports</li> </ul>	1

<b>Table 3: Evaluation Issues, Questions and Indicators</b>				
<b>Issues</b>	<b>Questions</b>	<b>Indicators</b>	<b>Data Sources</b>	<b>Priority</b>
	41. What <i>are key attributes</i> of the more cost-effective projects?  - custodian attributes (awareness of information concepts, etc.)  - student attributes (academics, previous experience in computers, etc.)  - contractor attributes (experience, numbers of staff, etc.)	<ul style="list-style-type: none"> <li>• responses of IC, contractors and custodians</li> <li>• project analysis</li> </ul>	<ul style="list-style-type: none"> <li>• file reviews</li> <li>• management reviews</li> <li>• survey of IC, contractors, and custodians</li> </ul>	1
Source: Industry Canada, 2002.				

## 4.0 Overall summary of findings

This section provides a summary of the findings as they relate to the issues posed in the evaluation framework in Section 3.<sup>1</sup>

### 4.1 Rationale for the program

#### 4.1.1 Relevance

*What role has CDC played in the development of online content in Canada since 1995?*

Key informants said the program plays a leading role in creating digital content where little existed before. Among the points mentioned:

- ▶ It was the federal government's first initiative to get Canadian digital content on the world wide web.
- ▶ It acted as a catalyst for creating digital collections.
- ▶ The program and Industry Canada opened up a field never explored before.

**CDC served as a catalyst for digitizing and placing online Canadian cultural and heritage content on the Information Highway**

Key informants also said the project was useful for getting the heritage sector (museums, cultural organizations, educational institutions, provincial governments, etc.) involved and interested in digitizing collections and it allowed young people to gain experience creating high-quality collections at low cost.

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<sup>1</sup>

Not all questions are addressed here due to limitations in the scope of the research, budgetary/time constraints, and because certain information was not available during the course of the evaluation.

***How does CDC align with Industry Canada goals under the Connectedness Agenda? Has its alignment increased, decreased, or remained the same over the last five years? Are the program objectives still relevant given the current public and private sector environment in providing multi media content?***

Key informants interviewed generally felt the CDC fits well with the Connectedness Agenda. Two respondents explicitly said they felt the CDC program helped shape the Connectedness Agenda, and most felt the program was still relevant or that the alignment had either stayed the same or increased in the past five years.

Several respondents noted the program's relevance was due to its usefulness as a tool for giving young people experience and addressing the needs of 'at-risk' youth.

However, some respondents expressed two concerns:

- ▶ There should be more coordination between CDC and 'the heritage side' to eliminate duplication and overlap.
- ▶ CDC 'took another direction' toward heritage-related projects, and Industry Canada provided insufficient resources to keep the program going in its original direction.

These concerns reflect the maturation of CDC and the increased role of other departments (e.g., Canadian Heritage) in finding and promoting digital content.

***Is the CDC complementary to any other youth program?***

Just over one-half of the contractors (56%) and two-thirds of custodians (69%) surveyed indicated that they received additional funding, resources, or support from other government programs for the purposes of digitizing material. The majority indicated the support was financial (73% of contractors and 86% of custodians).

Programs or organizations mentioned include provincial heritage foundations or Provincial government programs such as Student Summer Works, Canadian Council of Archives,



Canadian Archives Information Network, Young Canada Works, and private corporations.

The need for multiple funding sources illustrates CDC's role as a catalyst and the fact that it complements other programs that support youth. Certainly, in relation to the entire Youth Employment Strategy, CDC represents a modest but important expenditure.

#### **4.1.2 Impact**

##### *If CDC ceased, what would be the impact?*

Most key informants felt discontinuing the CDC would have a negative impact. The most common concern was that terminating CDC would deprive young people of opportunities to gain work experience in multi media. Others said ending the program would harm the heritage-preservation cause, as many of the existing collections would never have been digitized without the program.

At the same time, several key informants pointed out that Canadian Heritage was about to embark on a major program of digitizing Canadian historical and cultural content. They see CDC as having initiated the program and demonstrated the potential for digitizing content. They believe that CDC can safely turn to other objectives.

Contractors were asked if their organization did any multi media work prior to involvement in CDC. Most (70%) stated that they had done this type of work before being in the CDC program which suggests that CDC was one of several sources of revenue.

Both contractors and custodians were asked if they planned to undertake other digitization projects in the next 12 months, and if so, would it be with the support of the CDC program. The majority (54% of contractors and 81% of custodians surveyed) indicated they were planning other digitization projects. Of those planning future projects, one-half indicated they were doing so without any CDC support.

Contractors were also asked if they expected increased activity in the multi media sector without continued support of the CDC program. Here many respondents were undecided, as 37% either

did not know or could not answer the question. Nearly one-quarter (23%) said they did not expect any long-term multi media activity without support from CDC. This may be a strategic response by firms that rely more heavily on CDC revenue than others. Alternatively, where the contractor is a cultural organization, their response may reflect uncertainty about the sources of future funding for digitizing other content in their collections. The table below provides the breakdown of responses to this question.

<b>Table 4: Do you expect the increase in multi media activity to be long-term without continued support from the CDC Program? (n=43)</b>		
	<b>n</b>	<b>%</b>
Yes	17	40%
No	10	23%
DK/NR	16	37%
Total	43	100%
Source:(Q19, Table 48 of Contractors Survey)		

Youth participants currently employed were asked how helpful their experience in the CDC-sponsored project was in finding work. Overall, two-thirds (66%) said that they had found work as a result of their CDC involvement, and 40% said the CDC project was very helpful in finding that work. In addition, when broken down by the time period the participants were involved in the program, the results are similar to the overall findings. (see table below).

<b>Table 5: Please tell me whether the project was very helpful or somewhat helpful in finding work? (n=329)</b>			
	<b>Involvement in CDC Program</b>		
	<b>Within last two years (n=208)</b>	<b>More than two years ago (n=121)</b>	<b>All participants (n=329)</b>
Somewhat helpful	27%	26%	26%
Very helpful	41%	37%	40%
Did not find work as a result of being in CDC	32%	37%	34%
Total	100%	100%	100%

Source: (Q8/Q8A, Table 17 of Youth Participants Survey)

As well, youth participants were asked if they had not been involved in the CDC-sponsored project, would they have found similar training or experience elsewhere. The majority (61%) disagreed with this statement (see table below).

<b>Table 6: If I had not been involved in the project through Canada's Digital Collections I would have got similar experience or training elsewhere. (n=575)</b>		
	<b>n</b>	<b>%</b>
Strongly disagree	195	34%
Somewhat disagree	157	27%
Neither agree nor disagree	18	3%
Somewhat agree	124	22%
Strongly agree	67	12%
DK/NR	14	2%
Total	575	100%

Source: (Q10C, Table 23 of Youth Participant Survey)

The above responses indicate that youth involved in the program see it as having been very important to their skill development, and indicate they do not believe other similar opportunities existed for them to attain this type of experience.

***Does CDC duplicate any other initiative (federal, provincial, or other)? Where does CDC fit in other public sector funding aimed at the development of ITC skills and online Canadian content?***

There was some disagreement among key informants over this issue. Five respondents said it's unique from other initiatives. Among the respondents who did see overlap or duplication, one mentioned overlap (but not duplication) with the National Archives, another suggested the possibility of overlap with the Virtual Museum of Canada. Two respondents said the program overlapped with Canadian Heritage initiatives.

This question when posed in a statement, does appear to confirm the potential for overlap. On the other hand, it is important to note two trends:

- ▶ Digitizing content is becoming more accessible and other departments and agencies are able to accomplish this more easily.
- ▶ In reality, other departments, notably Canadian Heritage and the National Archives have the preservation and promotion of Canadian content as a central goal. It is understandable that these departments should assume leadership in this area as the technology becomes more widely available to produce content, and equally important is that the capacity of the general public to access this content has also increased, justifying a much more concerted effort in promoting dissemination of this content.

## **4.2 Program delivery**

### **4.2.1 Management structure**

#### *Is the program responding to a need?*

Most key informants believed the program was responding to multiple needs. Among the points commonly mentioned:

- ▶ The program improves youths' technical, business, and entrepreneurial skills. CDC also offers work experience and opportunities for those who would not have been trained without the program, such as 'at-risk' youth and Aboriginals.
- ▶ All but one said the program is meeting custodians' needs. Respondents mentioned the program helps custodians (especially the smaller organizations) to get content online; it is user-friendly, confidence-building program; and that it provides a new source of funding not previously available, in addition to generating customer interest.
- ▶ Respondents generally felt the program helped meet contractors' needs by giving them much needed business experience and a foothold in the Information Technology (IT) industry. However, one respondent said some contractors are "*not bringing in new youth to learn skills, but...just looking at the program as a money-making venture.*"
- ▶ Respondents praised the program for its educational and informational value to the general public, particularly with some collections being featured on 'Yahoo!' and web site traffic peaking around November 11 and the end of the academic year, suggesting the sites offer value as an educational resource.
- ▶ Other needs responded to included an increase in educational partnership between provinces, and increased young peoples' exposure to their heritage. One respondent suggested an unfilled need: for Industry Canada to create new objectives to take changes in context into account.

*Has CDC and Industry Canada provided sufficient support for the program in terms of promoting it, creating and managing an*

***effective application process, and creating clear guidelines for custodians, contractors, and youth?***

Generally, key informants were satisfied with the level of support received from CDC and Industry Canada. However, one respondent said while support exists, it is insufficient for their needs. Another was satisfied with the application process and guidelines, but indicated that promotional support was lacking.

In the survey, contractors were asked whether Industry Canada provided their organization with sufficient guidance and information to successfully fulfill its contracts. Most (89%) agreed with this statement. In addition, contractors were asked if the custodians provided them with sufficient guidance in terms of material selection and content arrangement. Most contractors agreed (82%) that this was the case. On average, contractors indicated they allocated about 270 hours per project to training, technical support, and business management.

Youth participants reported that they received training in technical (76%) and business management-related issues (41%). This indicates that a sizable portion of youth participants are learning business skills in addition to technical skills.

***Who provides quality control over content? Is this sufficient to ensure that the material represents Canada's heritage adequately?***

Key informants indicated that contractors and custodians are responsible for providing quality control. It is a self-monitoring process, that key informants stated generally works well. Informants mentioned a number of outstanding collections, including Emily Carr at Home and at Work, the Canadian Virtual War Memorial and the Newfoundland Salt Fisheries site. Other respondents commented on the low resolutions of digital material, reducing their commercial value, and on unspecified web sites ultimately not linked to from the CDC web site.

This demonstrates that CDC has a limited capacity and budget to support the larger potential for digitizing relevant cultural and historical content. At some point, the interest in digitizing content and the need to ensure quality control may exceed the capacity of the program to manage.

#### **4.2.2 Promotion**

##### ***How does CDC promote access to content on the Information Highway (a pillar of government policy)?***

Key informants indicated that CDC acts as a good model for other, similar projects, and has increased the availability of online content. Key informants stated that CDC's main web site acts as a gateway because all collections are required to be listed there and also with major search engines, which in turn helps generate traffic. Bulletins are also issued to librarians and archivists.

A few key informants argued that CDC should be more vigorously promoted. One respondent suggested cross-marketing with the Virtual Museum of Canada as a possible option.

##### ***Was there sufficient awareness of the program for major custodians to become involved? If not, what could have been done to make them more aware?***

Key informants were somewhat mixed in their responses to this question. Some agreed there was sufficient awareness, but suggested improvements that need to be made.

- ▶ A need to increase content-creation and involve youth in such projects.
- ▶ Major players in the field are aware of the program, but smaller or less-informed ones might not be aware of or interested in it.
- ▶ The program design should be revisited and fine-tuned with regard to salary and other issues.

One key informant said awareness is a serious problem for the program, and that the funding is only for youth employment, leaving none available for promotion. This person also noted that some custodians lack sufficient resources to participate and are not in a position to offer management or supervision to a project.

Custodians were asked how they first heard of the CDC program. The most common responses included referred by a *government department or service* (43%), from a *friend, colleague or relative* (33%) or through the *CDC web site* (29%).

Contractors were also asked how they first heard of the CDC program. Similar to the custodians, the most common methods of awareness included referral by a *government department or service* (41%), through the *CDC web site* (29%) or from a *friend, colleague or relative* (24%).

When contractors were asked if the lack of information on government programs was an important obstacle in their organization's plans for business expansion, one-half (50%) said this was not an important issue, 30% indicated it was, and 20% did not know.

For youth participants surveyed, the majority indicated that they were first informed of the CDC program through a *friend, colleague or relative* (31%) or from a *professor, teacher or other educator* (27%).

***From what you know, are provincial departments and school boards aware of the CDC program? What more, if anything, can be done to promote program awareness?***

Key informants mentioned that the level of organizational involvement varied among provinces. British Columbia was mentioned, noting the endorsement of some sites by BC Education. The governments of Alberta, Saskatchewan, Nova Scotia, Newfoundland and Labrador, and Prince Edward Island were also said to be active. Promotion was said to be needed, and one key informant mentioned that partnering with the Virtual Museum would help in this regard. Another stated that there needs to be a more comprehensive national communication strategy in place to inform educational institutions of the various web sites.

Key informants said:

*If the CDC built in marketing funds into the contract's project budget, then the contractors could do the promotion and marketing of the sites produced. Advertisements have been put into the Alberta Teachers Association Magazine, and this has resulted in increased web site activity. Presentations made at various conferences have also increased the visibility of the sites and the program as a whole. More funding is needed for promotion, along with a more streamlined web address (URL) to*



*make it easy for persons to remember and visit repeatedly.*

#### **4.2.3 Selection process**

*Is the selection process effective in supporting the program's goal of enabling the digitization of Canadian content?*

There was widespread agreement among key informants on the effectiveness of the selection process. Respondents praised the clear criteria, the fairness of the process, and the use of adjudicators to settle disagreements.

While most key informants agreed that significant collections are being included in the program, one respondent said projects were being turned away due to insufficient resources. Another warned:

*The quality of applications appears to be declining...Most are worthy of digitizing, but there are a few that are of poor quality.*

The selection process itself is documented on the CDC web site. In addition, potential applicants can find out what the eligibility criteria are for a CDC project and how the application process works. Below is a summary of the selection process:

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The selection process is administered by Industry Canada through a Project Selection Advisory Committee, made up of experts on content. The committee will rank proposals submitted during a competition using the following criteria:

- ▶ assurance of sound team management and technical leadership
- ▶ proposers ability to guarantee a high-quality product
- ▶ significance of material to be digitized
- ▶ suitability of the material for inclusion in a digital collection on the CDC web site
- ▶ design of the proposed digital collection.

Industry Canada is responsible for making the final decision as to selection, taking into account:

- ▶ the need to assure regionally balanced program delivery on a national scale
  - ▶ each project's potential for youth employment and enhancement of local economic initiatives and private sector development.
-

#### **4.2.4 Monitoring usage of visitors**

##### *Who visits the digitized collections and how are they used?*

In 1998, Industry Canada asked visitors to participate in an online survey. The survey “popped up” on the computer screen of every tenth visitor to the site. It asked basic background information from the visitor such as how they found the CDC site, and also the nature of their visit. The major findings from the monitoring are:

- ▶ most respondents were between 25 and 54 years of age (73%)
- ▶ most respondents were from Canada (84%)
- ▶ over one-half (52%) had an undergraduate or graduate university degree
- ▶ most were not currently enrolled in school (76%)
- ▶ two-thirds (65%) accessed the site from their home, while one-quarter (26%) did so from their place of work
- ▶ the most common methods of discovering the CDC web site included a *link from another web site* (33%) and through a *search engine* (27%)
- ▶ just over one-half (53%) said this was their first visit to the CDC site and one-quarter (25%) indicated they had visited five or more times
- ▶ the most common reasons for visiting the site included *research* (36%), *general interest* (29%), and *curriculum development* (12%)
- ▶ most found the site *easy to use* (81%)
- ▶ more than one-third (36%) indicated the collections were their favorite feature of the site although a large portion (45%) were uncertain how to respond to this question, possibly due to the fact that many were first-time visitors.

Key informants indicated that feedback from site users usually arrives through e-mail. E-mails received were generally positive,

though one key informant noted some e-mails hinted at the need for more French-language content in 'non-French' sites.

Custodians were asked if they had implemented a tracking or monitoring system to identify the type of people who are using the digitized collections. Only 21% indicated they had such a system in place. Of those who were monitoring visits to their web sites, most mentioned *students* and *teachers, educators, or professors* as those who visited most often.

## **4.3 Results**

### **4.3.1 Custodian/contractor benefits**

#### *What feedback have you heard from custodians and contractors?*

Generally, key informants reported positive feedback on the CDC program from custodians and contractors. However, a few said the feedback also pointed to needed improvements in the contribution agreement. Improvements were said to be needed because the process has become too bureaucratic. One cited having adopted an exceedingly complex contribution agreement for a \$25,000 youth project, comparing the process to "*using a sledgehammer to kill a fly.*" The other said that any change in the contribution agreement, however small, required a trip to the lawyer.

#### **Contractors**

Contractors were asked the number of cultural or historical projects their organization has been involved in that required digitization, and how many involved the CDC program. While the average number of digitization projects was 11, approximately one-quarter (24%) said they had been involved in only one project. The median for this question was four. This disparity between average and median number of projects undertaken is due to the fact that a few contractors in the sample (n=2) were involved in 100 or more such projects.

Contractors were asked how many CDC projects they were involved in. Nearly half (44%) were involved in only one. The average number of CDC projects that contractors were involved in was approximately two. This indicates that, on average,

contractors have undertaken at least as many non-CDC digitization projects as CDC ones.

For those contractors who did multi media work before becoming involved in CDC, about one-half indicated that their organization had experienced an increase in multi media activity as a result of being involved in the CDC program. The average percentage of increased multi media activity was 34%, with a range between 5% to 300%.

Contractors were asked whether their involvement in the CDC program had increased their organization's visibility or exposure in various areas. The table below summarizes their responses.

<b>Table 7: Has the CDC Program increased your organization's visibility or exposure in the following areas? (n=59)</b>	
<b>Area</b>	<b>Yes (%)</b>
Establishing new opportunities or alliances with cultural institutions	63%
Establishing new networks at the local level	54%
Establishing new alliances with schools or training institutes	46%
Establishing new opportunities or alliances with private organizations	46%
Establishing joint ventures with other content providers	42%
Source: (Contractors survey, Q20)	

More than one-half of contractors agreed that the CDC program had increased their organization's visibility or exposure in *establishing new opportunities or alliances with cultural institutions* (63%) and *new networks at the local level* (54%).

When asked their overall rating of the CDC program, most contractors rated it as *good* (49%) or *excellent* (37%).

### **Custodians**

Custodians were asked a series questions (similar to the contractors) regarding their involvement in the CDC program. The table below summarizes their responses.

Table 8: As a result of the CDC program has your organization...(n=42)		
Area	Yes	Currently considering
Established new opportunities or alliances with cultural institutions	50%	24%
Established new networks at the local level	50%	10%
Established joint ventures with other content providers	45%	17%
Established new alliances with schools or training institutes	36%	7%
Established new opportunities or alliances with private organizations	33%	19%
Source: (Custodians survey Q9)		

More than one-half of custodians indicated that as a result of the CDC program, they had either established or are considering establishing *new opportunities or alliances with cultural institutions* (74%), *new networks at the local level* (60%), and *joint ventures with other content providers* (62%).

When asked their overall rating of the CDC program, most custodians rated it as *good* (38%) or *excellent* (48%).

#### 4.3.2 Youth participants skills gained

Youth participants were asked the types of work they performed while involved in the project. Approximately one-half mentioned such things as web page design, research, data entry, programming, and editing. Other types of work done by participants included project management (32%), photography (16%), and translation (10%).

Participants were asked the duration of the project and the number of team members, including themselves, who worked on it. Most projects (65%) lasted between three to six months, and on average, employed six or seven youth participants.

When asked what was their main activity since the project ended, most participants said they were either working full-time or part-time (44%), pursuing studies (40%), or both working and pursuing studies (10%). Of those working, the majority (62%) said it was in an information technology (IT) or multi media-related field. Of those pursuing studies, about two-thirds (65%) were doing so at the university level. The field of study varied widely. The table below provides a detailed breakdown.

Table 9: In what field are (were) you pursuing studies? (n=268)		
	n	%
Computer related	52	19%
Multi media	19	7%
Technology (not engineering)	6	2%
General arts	41	15%
Sciences	32	12%
Engineering/Architecture/Planning	20	8%
Business	16	6%
Education	13	5%
Medicine	7	3%
Law	5	2%
Other - professional	18	7%
Graduate studies	11	4%
Other	27	10%
DK/NR	1	<1%
Total	268	100%
Source: (Participants Survey Table 9)		

All participants were asked if involvement in the project had an influence on their educational path or their career path. Just over one-half stated the project had *somewhat* or *a great deal* of influence on both their educational and career path.

Participants were asked to rate the level of agreement to several statements relating to the skills obtained and opportunities they were provide while involved in the project. The table below provides a summary of their responses.

<b>Table 10: Participants' level of agreement with statements relating to skills gained and opportunities provided from working in the project. (n=575)</b>					
<b>Statement</b>	<b>Strongly agree</b>	<b>Somewhat agree</b>	<b>Neither agree nor disagree</b>	<b>Somewhat disagree</b>	<b>Strongly disagree</b>
While working on the project I learned useful computer skills	55%	32%	1%	7%	5%
My participation in the project made me more aware of career opportunities in multi media, IT, or entrepreneurship	38%	41%	1%	15%	5%
My participation in the project made me more aware of career opportunities in the education, heritage, or cultural field	33%	40%	2%	17%	9%
CDC helped me understand what is needed as a professional within the workplace	41%	42%	2%	9%	5%
The project contributed to my computer skills in areas such as multi media and/or IT	62%	29%	<1%	5%	4%
The project increased my ability to look for a job in the IT or multi media sector	37%	37%	3%	13%	10%
As a result of the project, my understanding of business and entrepreneurship has increased	25%	42%	2%	18%	13%
Note: Percentages sum horizontally. Source: (Participants survey, tables Q10A, B, B1, Q11A, D, Q12A, B)					

Not surprisingly, a large majority of participants agreed with the statements that related to learning or utilizing skills in computer, multi media, or IT. However, a large majority of participants also agreed that involvement with CDC through the project *made them more aware of career opportunities in in the education, heritage, or cultural fields (73%), understand what is needed as a professional in the workplace (83%), and increased their understanding of business and entrepreneurship (67%)*.

Participants were asked if there were any skills they acquired while involved in the project, other than the computer related skills already mentioned, that were useful in seeking employment. Approximately two-thirds indicated they acquired such additional skills. The table below details their responses.

**Table 11: Other than the computer-related skills already mentioned, are there any other skills that you learned in the project that have been useful in**



seeking employment? (n=575)		
	n	%
Teamwork	199	35%
Project management	121	21%
Researching	89	16%
Time management	79	14%
Business communications	60	10%
Public relations	46	8%
Writing, editing skills	37	6%
Interpersonal skills	32	6%
Interviewing	24	4%
Computer skills	24	4%
Other	20	4%
No other skills	176	31%
DK/NR	6	1%
Total	575	100%

Note: Respondents could choose more than one answer. Totals may sum to more than 100%.  
 Source: (Participant Survey, Q12C)

More than one-third of participants (35%) mentioned teamwork skills, and one-fifth (21%) indicated project management skills were learned.

Nearly all youth participants surveyed (94%) stated that their experience with the project met or exceeded their needs. Approximately one-fifth stated that they had started a multi media or information technology business (14%) or intended to do so (5%) as a result of their participation in CDC.

Contractors were asked how many students they had working for them who were involved in the CDC project(s) undertaken by their organization. They were also asked the number of hours the students were involved. Due to the fact that a few respondents indicated large numbers of students involved, the median number of students and hours involved is provided in place of the mean (average), as the mean tends to be inflated by a small number of very high values. The median total number of students involved per contractor was five, (mean 8.4). Of the three types of students (universities, community/career colleges, high school) all three appear to be similarly represented in terms of numbers of students hired by contractors. There were 166 community/career college students hired for CDC projects by these contractors, 150 university students, and 102 high school students. The total number of hours worked by students on CDC projects was a median of 1,850 hours (mean of 3,329) per contractor. However, about two-fifths of respondents (39%) did not answer this

question. We posed these questions to contractors because of the difficulties in doing follow up data collection with students.

Contractors reported similar information as the youth participants after the CDC project was completed. To the extent that contractors knew this information, these findings are summarized below.

- ▶ Nearly one-half of the contractors surveyed (46%) indicated that they had hired at least one youth participant after the CDC project ended, with an average of about two being hired per contractor.
- ▶ Just over one-quarter (27%) of the contractors surveyed indicated that participants had started a new business.
- ▶ The majority of contractors (61%) indicated that youth participants had found work for another organization, and on average, three participants did so per contractor.
- ▶ Over one-half of contractors (58%) indicated that participants went back to school, with an average of four doing so per contractor.

Contractors were asked to rate the usefulness of the CDC program with respect to providing youth with computer skills, and promoting multi media and information technology among youth. More than two-thirds indicated that CDC was “*very useful*” in these areas. Approximately two-thirds (64%) of contractors also stated that the CDC program was “*very useful*” or “*somewhat useful*” in the recruitment of new employees.

Similarly, custodians were also asked to rate the usefulness of the CDC program with respect to providing youth with computer skills, and promoting multi media and information technology among youth. As in the contractor survey, more than two-thirds of custodians indicated that CDC was “*very useful*” in these areas. More than one-half (52%) of custodians also stated that the CDC program was “*very useful*” or “*somewhat useful*” at recruiting new employees.

#### **4.3.3 Other benefits**

***How has the program affected educational systems (i.e., provincial departments and school boards)?***

Key informants said the program had an effect, even if it was indirect. One informant noted that CDC was able to attract the BC government's involvement "*in spite of the province's standoffish relationship with the federal government.*" Another noted that the provincial educational curriculum was built in part around the collections.

Both contractors and custodians were asked to rate the CDC program in terms of its usefulness in the *production of new digital materials* and the *preservation of cultural and historical heritage*. For both of these items, more than three-quarters of the contractors and custodians (ranging from 76% to 81%) rated the CDC program as *very useful*.

#### **4.3.4 Significance of collections**

Guidelines posted on the CDC web site indicating appropriate subject matter and project requirements mention the following in regard to the significance of the collection to be digitized.

- ▶ Material to be digitized should be of significant local, regional or national interest and be suitable for presentation on the world wide web at the CDC web site.
- ▶ The material should be organized so that users can easily navigate to content.
- ▶ Presentation and multi media elements should make the product work effectively.
- ▶ Applicants who are qualified to do so are encouraged to create teaching and learning materials as part of their project. These resources will be searchable through the CDC web site.

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The CDC web site's subject index contains the following main collection topics:

Business, Science, & Technology  
Fine Arts  
First Peoples  
Geography  
Government  
History  
    Canada At War  
    Canadian History  
    Places in Canada and Local History  
Labour  
Literature  
Social Studies  
Women

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In an effort to have program applicants provide well thought out proposals of collections to be digitized, the CDC web site provides examples of successful proposals. The most highly rated proposals are posted on the CDC web site with the aim of providing presentation and style guidance to potential applicants. A sampling of highly rated proposals are listed below.

- ▶ The Shark Group: *Barkerville Web site*
- ▶ Whitelands Studio: *The Potato: Then and Now*
- ▶ Provincial Archives of Newfoundland Labrador: *The Newfoundland Salt Fisheries: A Digital Exhibit Web site*
- ▶ Galactics: *Adventures in Science and Technology*
- ▶ Ukrainian Cultural and Educational Centre: *Harvest of Dreams: A Celebration of the Centennial of Ukrainians in Canada*

***In your view, why are the heritage digital collections significant or useful?***

Key informants mentioned the collections are useful from the point of view of promoting Canadian heritage and creating quality Canadian content on the Internet. Respondents mentioned the content reminds viewers of Canada's history and roots and creates a sense of national identity and self-awareness.

Informants also noted that the collections are useful as an educational tool, given their growing use in schools. In addition, two respondents mentioned small IT firms benefitting from the project.

One key informant indicated that over 500 collections had been digitized. A recent count of all online collections at the CDC web site totals 442.

#### **4.4 Lessons learned**

##### **4.4.1 Strengths**

Key informants were asked the strengths of the CDC program. Respondents cited the following as strengths:

- ▶ relatively little red tape, the application process is streamlined
- ▶ it offers training opportunities and good content
- ▶ it promotes Canadian culture
- ▶ it creates professional relationships
- ▶ CDC personnel are helpful.

One key informant summarized the CDC's strengths in the following manner:

*The CDC is an unparalleled initiative to get content online, enable heritage to be digitized and put online, and to help shape interns and influence their understanding of the country. The CDC is a more wide-open program that allows for small groups to become involved and get their content digitized and online. It marries technology and content into an accessible product.*

Custodians were asked to identify what they thought was the CDC program's greatest positive element. Most respondents identified

youth training opportunities (36%) or providing greater access to Canadian history online (36%) as the key positives. The table below details all their responses.

<b>Table 12: What is the greatest positive element to the CDC Program? (n=42)</b>		
	<b>n</b>	<b>%</b>
Training youth/youth opportunities	15	36%
Put history online/easier access to Canadian history	15	36%
Preservation of cultural/historical archives/artifacts	5	12%
Financial: Support/assistance for the endeavour	5	12%
Technical: Support/resources/assistance	4	10%
Other positive elements	8	19%
DK/NR	4	10%
Total	42	100%
Note: Respondents could choose more than one answer. Totals may sum to more than 100%.		
Source: (Custodian survey, Q13)		

#### 4.4.2 Weaknesses

Key informants also cited weaknesses of the program. As follows:

- ▶ payment structure and contribution agreements are irritants
- ▶ bureaucracy when modifications to project contract terms are required
- ▶ too narrow in focus: should fund a wider range of collections
- ▶ funding delayed or inconveniently timed
- ▶ salary and funding levels are too low, specifically for smaller organizations as additional support is required to supervise the project, and for many, their current staffing levels are insufficient for this task, thus reducing participation by these groups
- ▶ contractors exploit the program for their own benefit.

The following key informant quotes emphasize the above mentioned weaknesses.

*The payment structure and contribution agreements are a nightmare. It (the bureaucracy) is a burden for those involved in the program.*

*There is not enough time for youth in projects. The hourly wages are too low presently for what they do. Budgets of \$25,000 or less are not enough for some projects.*

*The legalistic bureaucracy and a seeming decline in the quality of the content by contractors who are only exploiting the program for their own benefit.*

Contractors were asked *how important a lack of financial resources was as an obstacle in the expansion of their business activities*. Most (87%) said this was a *somewhat or very important* obstacle to business expansion.

Contractors were also asked whether a *lack of good candidates (students) or lack of internal capacity to train employees* was an obstacle to expanding their business activities. Just over one-half indicated that these were not important obstacles impeding their business. For the majority of contractors surveyed, getting students

and training them is not an obstacle to expansion of their business activities.

Custodians were asked to identify what they thought was the CDC program's greatest negative element. Most common issues raised included funding guidelines, per hour requirements, budget constraints (29%) and bureaucracy, paper work, project administration and reporting (19%). The table below details all their responses.

**Table 13: What is the greatest negative element to the CDC Program? (n=42)**

	n	%
Funding guidelines: Per hour requirement/budget restraints	12	29%
Bureaucracy/paperwork/administration/reporting	8	19%
No updates/projects not kept going/lack of follow-up	4	10%
Web site problems	3	7%
Difficult to access funds: No funding of new collections	1	2%
Other negative elements	4	10%
Nothing	2	5%
DK/NR	10	24%
Total	42	100%

Note: Respondents could choose more than one answer. Totals may sum to more than 100%.  
 Source: (Custodian Survey Q14)

***In what ways has the CDC program adapted to changes in technology, custodian, contractor, and youth needs?***

Some key informants said the fast pace of change in recent years has made things challenging. One mentioned some innovations, such as chat rooms, were not available due to limited resources. A few others used this question as an opportunity to criticize the contribution agreements, mentioning their complexity and the delays they cause.



### 4.4.3 Improvements

Key informants offered the following suggestions for improvement of the CDC program, many of which attempt to address the weaknesses uncovered in the previous section.

- ▶ More funding should be made available for upgrading existing projects, raising wages, and doing more promotion.
- ▶ Reduce paperwork and bureaucracy.
- ▶ Content quality, particularly in the application process, should be better monitored.
- ▶ The program should target specific youth groups, such as the disabled, and those in inner cities.
- ▶ The program needs new objectives or to look into new areas (such as digitizing corporate or community collections).

Contractors were asked if there was anything they would like to see changed or done differently to improve the CDC program. Just over one-third (37%) suggested improvements that could be made. Such things as *more accessible funding for computer equipment and software, better guidelines/management/follow-up for the project, and extended project deadlines or longer time periods to work on projects* were among the most common improvements mentioned.

Custodians were also asked if there was anything they would like to see changed or done differently to improve the CDC program. Over one-half (57%) offered improvements. The most commonly mentioned improvements were *changes to funding/operating guidelines/management* (33%), and *increased funding/access to funding/broadening of eligible expenses* (21%). Several respondents mentioned *less reporting/less paperwork/fewer rules and requirements* (17%), *a faster project approval process* (13%) and *easier content upgrading or updating of existing online collections* (13%).

Youth participants were asked if there were any improvements that they would like to see made to the CDC program, based on their experiences. Most (62%) said nothing needed to be improved in the program. Of those who did provide suggestions, the most common

were *better management and supervision, more advertising of the collections web site, and better communication.*

#### **4.4.4 Cost effectiveness**

*In your view, what are the attributes of a successful project under CDC, with success defined as...*

Key informants we asked to define the attributes of a successful project using the following criteria:

*Cost Effectiveness:* According to informants, a cost-effective project should offer a good return on investment and good quality control. It should also be finished on time, with the custodians being happy with the final product.

*Type of project:* Informants generally felt projects should be well-planned and well-presented to be successful. One respondent also noted projects should not deal in controversial issues or areas where facts are unclear or disputed.

*Type of student:* Skills mattered most to respondents, with technical (particularly web site creation) and writing skills usually being at the top of the list. Respondents also looked for a positive attitude, strong motivation on the student's part, and an interest in the subject.

*Type of contractor:* Among those able to answer this question, most looked for one or two experienced contractors willing to commit themselves to the project. Being able to deal well with people and technical skills were also mentioned as desirable.

Contractors were asked to provide basic information on their organization. The following summarizes the findings:

- ▶ When defining the scope of their business activities, the majority (58%) mentioned web site design, and nearly one-half (46%) also mentioned training or educational activities.
- ▶ The number of employees in each of the organizations sampled varied widely; 51% indicated they had 10 or less employees and 42% stated they had more than 20 staff.
- ▶ On average, they have been involved in the information technology field for 13 years, the CDC program for two years, and derive approximately one-third (37%) of their overall business from multi media and information technology contracts.

Custodians were also asked to provide basic information on their organization. On average, custodian's organizations have used information technology for such things as converting paper archives into electronic media for a web site or CD-Rom for the past five years. Due to the small sample sizes provided for questions regarding the contractor's number of cultural/historical projects undertaken and the proportion that were CDC-funded between 1996 and 2001, no further statistically significant analysis is possible.

## **5.0 Conclusion**

Overall, based on the information collected and analyzed in the previous sections, the following conclusions can be drawn.

Those involved in the program are generally satisfied with CDC. This is demonstrated by the fact that most contractors and custodians (86%) rated the CDC program as good or excellent, and nearly all youth participants (94%) said the projects they were involved with through CDC met or exceeded their expectations. Key informants mentioned that CDC is not only successful at training and providing youth with valuable work and business skills, but it also promotes Canadian heritage and creates quality historical content for the Internet.

Generally, contractors and custodians were happy with the proposal application process, though many voiced concern with the overly bureaucratic contribution agreements. Many suggested that changes to the funding agreements should be made to make it easier for contractors to cover other expenses such as hardware, software, or maintenance and upkeep of a web site, or facilitate speedier methods of payment. When asked, most contractors (87%) indicated that a lack of financial resources was as a *somewhat* or *very important* obstacle to expanding their business.

Better promotion and advertising of CDC-sponsored online collections was noted by key informants and youth participants as something that could be improved in the CDC program. This was seen as necessary to make the public, educational institutions, and other organizations more aware of the online collections, and use them as a resource.

Of those contractors planning other multi media projects in the next 12 months, half of them stated they were doing so without the support of CDC. In addition, 40% of contractors said they expected the increase in multi media activity to be long-term, even without continued support of CDC. However, a large portion (37%) were uncertain about whether this would be the case.

About half of the contractors surveyed indicated that they had hired at least one youth participant after the CDC-funded project ended. Over 60% of contractors also stated that participants had found work with other organizations after the project. Just over one-half

of participants interviewed (54%) for this evaluation indicated they were currently working or working and pursuing studies.

The most cost-effective CDC projects have the following attributes:

- ▶ strong planning and conceptualization from the outset
- ▶ reliance on accurately researched information
- ▶ management by an experienced contractor
- ▶ involvement of youth participants who are highly skilled in web site creation, are highly motivated, and possess a positive attitude and a keen interest in the subject matter.

Overall, most individuals surveyed believe that it is a beneficial program that provides youth with work and business experiences that they would not have gained elsewhere. In addition, preserving and disseminating the Canadian historical content of smaller, local collections that would otherwise be overlooked, was also viewed as a valuable contribution of the CDC program.

**6.0 Recommendations**

By all accounts, the CDC offers a unique and important service to the following groups:

- ▶ youth who received training in multi media, the documentation of important cultural and historical archives, increased focus on their careers, and for some, an exposure to business practices.
- ▶ owners/custodians of important historical collections who were able to increase the exposure of these collections.
- ▶ multi media contractors who gained increased experience and business and also identified (to a limited extent) prospective new employees.
- ▶ the Canadian public, including students, who gained an educational and cultural resource.

The CDC program has been successful in meeting its objectives. Some 500 web sites now exist, most of which contain good content at an acceptable level of quality (in terms of web layout, design, and image resolution). However, aside from the creation of content, perhaps the most important contribution of the CDC has been to serve as a catalyst to demonstrate the potential of digitizing cultural and historical content.

Past success need not imply that any initiative should be maintained, or even that it should continue in its present form. From the core considerations, the following recommendations emerge.

<b>Core considerations</b>	A. In terms of preserving Canada's culture and historical heritage, is Industry Canada the appropriate "home?"
	B. Are there changes needed to the administration of the funding process that would benefit the Program regardless of where it is located?
	C. What technical challenges exist for current and future collections?

Consideration of each of these themes leads to several observations and recommendations that Industry Canada may wish to consider.

CDC started as a project that tended to emphasize the objectives of the Youth Employment Strategy and support for small business start-up and consolidation. Digitizing Canadian content was a very fortuitous theme area because a large supply of content resided with agencies and institutions that responded enthusiastically. This produced a large portfolio of collections on the web site, some of which are clearly excellent, most reasonable, and only a few disappointing in content and format.

Also important to the success of the program was the fact that the funding for individual projects was quite modest, which meant that many projects could be initiated. The energy and enthusiasm of students was also important for the success of individual projects.

**Recommendation**

**1. The CDC Program should be maintained**

Those involved in the program are generally satisfied with CDC. This is displayed in the fact that most contractors and custodians (86%) rated the CDC program as "good" or "excellent," and nearly all youth participants (94%) said that the particular project they were involved with through CDC met or exceeded their expectations. Key informants mentioned that CDC is not only for training and providing youth with valuable work and business skills, but it also promotes Canadian heritage and creates quality historical content for the Internet.

**Recommendation**

**2. Consideration should be given to two options for broadening the CDC program:**

- ▶ **migrating it to departments/agencies that are more directly involved with culture.**
- ▶ **expanding the involvement of departments, agencies, and even private organizations to increase the range of collections.**

However, it is likely that diminishing returns may be encountered in that many archive collections have been digitized. The remaining collections of significance are likely larger, and in some sense, more significant. Digitizing them may well require more sustained resources than can be managed over the short time available to participants in the CDC program.

Currently, formal editing or quality control processes exist and existing custodians appear to have been able to maintain quality control. However, with larger, more significant collections, a need for formal editorial control may emerge.

**Recommendation**

**3. Industry Canada or some other federal department/agency should maintain the “portal” for all collections. This should not preclude links to other sites to increase access to collections.**

**Recommendation**

If the program evolves to a wider group of sponsors or migrates to a few specific agencies, consideration should be given to ensuring that the existing collections are not “lost.” A danger exists in creating a diffuse initiative without standards and a wide dispersion.

**4. Industry Canada or the future sponsor of CDC will need to allocate resources to maintain and upgrade popular, high quality sites.**

Several observers noted that the limited budgets available created a ceiling or “capped” the resolution of the collections. This limited their use to public education and general information and precluded their industry or professional use. At the same time, technological advances in multimedia may create a situation where older collections may appear dated, and at some point in the future they may become less accessible as newer viewing technologies become standard.

**Recommendation**

**5. Consideration should be given to awarding a management support fee for smaller organizations with qualified collections. Care is needed to ensure that this fee is reserved for the small, non-profit, or community organization.**

**Recommendation**

A recurrent complaint was that the application process was bureaucratic. Further, for smaller organizations, the cost of making the proposal and managing the process required additional staffing resources. The terms of the Program do not allow for support for organizations to hire additional management support. According to a few respondents, this precluded some organizations with good collections from participating.



- 6. The department ultimately responsible for CDC should increase its efforts to publicize CDC, thus raising the market profile of the custodians and their collections and generating greater public interest in the collections as an educational/informational resource.**

Several key informants noted that the CDC Program is not well known, especially in light of how it could serve the educational market.

**Recommendation**

- 7. Industry Canada needs to develop a strategy for ongoing maintenance of the collections.**

An important issue in the maintenance of web sites as technology evolves. Overtime, excellent web sites may become obsolete as new Internet techniques become available. This can compromise the investment into the digital collections.