



**TÉLÉVISION DE RADIO-CANADA'S WORKING COMMITTEE
ON FRENCH-LANGUAGE CLOSED CAPTIONING**

**REPORT
PRESENTED TO THE CANADIAN
HUMAN RIGHTS COMMISSION**

April 29, 2005

TABLE OF CONTENTS

FINAL REPORT

EXECUTIVE SUMMARY	PG. 3
INTRODUCTION	PG. 4
HISTORY OF CLOSED CAPTIONING AT TÉLÉVISION DE RADIO-CANADA	PG. 5

CLOSED CAPTIONING AT RDI AND TÉLÉVISION DE RADIO-CANADA

BACKGROUND	PG. 6
CURRENT CAPTIONING RATES.....	PG. 6
CAPTIONING METHODS AT RADIO-CANADA.....	PG. 6
RADIO-CANADA AND LIVE TV.....	PG. 7
RDI FUNDING	PG. 7
WORKING COMMITTEE RECOMMENDATIONS	PG. 8
TRAINING	PG. 8
RADIO-CANADA/LA CITÉ COLLÉGIALE AGREEMENT.....	PG. 8
REPLACEMENT OF MÉDIATEX	PG. 9
VOICE RECOGNITION	PG. 10
ACTION PLAN – TRAINING, HIRING & TECHNOLOGY UPGRADES	PG. 11

APPENDICES

- 1- MEMBERS – WORKING COMMITTEE ON FRENCH-LANGUAGE CLOSED CAPTIONING
- 2- RADIO-CANADA/LA CITÉ COLLÉGIALE MEMORANDUM OF UNDERSTANDING

TÉLÉVISION DE RADIO-CANADA'S WORKING COMMITTEE ON FRENCH-LANGUAGE CLOSED CAPTIONING

FINAL REPORT

EXECUTIVE SUMMARY

- The working committee was set up in December 2004 to examine French-language captioning, especially in real time, which requires special technology.
- The committee was created after Senator Jean-Robert Gauthier complained that CBC/Radio-Canada did not caption all of its programming for the deaf and hearing impaired on its conventional network and its RDI specialty channel.
- Radio-Canada explained that this was essentially due to a shortage of staff skilled in its real-time captioning method—computer-assisted stenotypy—and the lack of French-language training in the field.
- This report looks at Radio-Canada's proposed action plan to resolve the situation and can be summarized as follows:
 - Help raise awareness of La Cité collégiale's new stenotypy program to begin in September 2005 through the Corporation's communications expertise and the strength of its national (network and RDI) and regional (CBOFT-Ontario and CBAFT-Atlantique) services.
 - Accept interns from the La Cité collégiale program and complete their training at its expense over a period of at least 12 months; hire them for its captioning unit if they meet its requirements and needs.
 - Replace the Médiatex system to achieve greater system speed and reliability; carefully monitor developments in voice recognition technology as they apply to real-time captioning.
- **By 2010, Radio-Canada expects to have five new stenotypists on staff and have reached the captioning rates below.**
 - **Télévision de Radio-Canada (network and regional stations):**
 - ❖ **100% throughout the day**
 - **RDI:**
 - ❖ **90% throughout the day**
 - ❖ **100% during RDI's two prime-time periods (6 to 10 a.m., and 4 p.m. to midnight)**
- **Radio-Canada will closely monitor technological advances, especially in voice recognition, and use them to attain the goal of 100% captioning on RDI by 2012.**

INTRODUCTION

The Working Committee on French-Language Closed Captioning on Radio-Canada's Television was set up further to an agreement in December 2004 between CBC/Radio-Canada and Senator Jean-Robert Gauthier through mediation organized by the Canadian Human Rights Commission. Senator Gauthier had filed a complaint against the Corporation claiming that not all of its and RDI's programming was accessible to the deaf and hearing impaired.

The Corporation acknowledged that it does not currently caption all programs on its national network and RDI, but explained that levels were in compliance with the licence obligations of both networks, and that the situation essentially resulted from a shortage of staff skilled in real-time captioning.

It suggested creating this working committee, which is made up of Senator Gauthier and representatives of CBC/Radio-Canada and La Cité collégiale in Ottawa, and is chaired by the Commission.

The purpose of the Committee was to study the issue of French-language captioning in order to take the steps required to make all programming on its main French-language television network and RDI available to the deaf and hearing impaired, under acceptable conditions.

The Committee met three times from January to March 2005. Between these meetings, members contacted stakeholders and experts in various areas of the captioning field (training, technical, users, etc.).

HISTORY OF CLOSED CAPTIONING AT TÉLÉVISION DE RADIO-CANADA

- **January 1982:** Radio-Canada broadcasts its first captioned French-language drama series, *Terre humaine*. At the time, viewers had to purchase a decoder at a cost of approximately \$350 to watch the captioned program.
- **1984:** Radio-Canada captions its 10 p.m. *Téléjournal* newscast, becoming the first TV network in the world to provide the deaf and hearing impaired with a daily captioned newscast.

1987 ***TÉLÉVISION DE RADIO-CANADA CAPTIONS AN AVERAGE OF 10 HOURS A WEEK OF PROGRAMMING, OR 8% OF ITS PROGRAM SCHEDULE.***

- **1992:** Radio-Canada goes on the air with its Médiatex system, developed in-house with the Canadian Workplace Automation Research Centre (CWARC), IBM France, and Grandjean. The system produces real-time captioning via computer-assisted stenotypy technology adapted for TV.

1999 ***JUST OVER 50% OF NETWORK AND 35% OF RDI PROGRAMMING (ON THE AIR SINCE 1995) ARE CAPTIONED.***

- **2001:** Videoconferencing links are established between regional newsrooms and the stenotypy unit at Maison de Radio-Canada, making it possible to caption Radio-Canada's nine regional newscasts in real time.

2005 ***OVER 90% OF ITS NETWORK AND 50% OF RDI PROGRAMMING IS CAPTIONED.***

CLOSED CAPTIONING AT RDI AND TÉLÉVISION DE RADIO-CANADA

BACKGROUND

CURRENT CAPTIONING RATES

During the 2004–05 fiscal year, Télévision de Radio-Canada captioned 91% of its programs, and RDI, 52%.

When the Corporation last renewed its licences in 2000, the Canadian Radio-Television and Telecommunications Commission (CRTC) indicated that it expected the TV network to achieve 90% captioning, and RDI, 56%, by the time their respective licences expired in August 2007. The Corporation achieved this rate two years early. RDI expected to reach the CRTC's target rate by 2007.

CAPTIONING METHODS AT RADIO-CANADA

Captioning is done in either of two ways, depending on whether the program is live or prerecorded.

For **prerecorded** programs, captions can be displayed in a clear manner—by positioning them on the screen near the person speaking, for example—and errors can be corrected. Captioners perform this task using standard computers and keyboards.

Radio-Canada uses computer-assisted stenotypy to caption **live** programs. Modelled on the method used for English-language captioning, the stenotypy system is used to simultaneously caption TV programs. Stenotypy was first developed in English-speaking markets, because the language system is simpler. The complexity of the French language complicates phonetic transcription, and this delayed the development of French technology.

Stenotypists use this procedure to transcribe sounds in real time using phonetic codes, which are automatically translated into on-screen text by computer. In 1992, Radio-Canada developed the Médiatex system in partnership with the French firm Grandjean and IBM France.

Thanks to Médiatex, Radio-Canada has developed unique expertise in real-time captioning. To our knowledge, Radio-Canada is the only French-language TV station in the world that captions all its news programs, including live inserts.

Today, Radio-Canada and RDI caption nearly all their prerecorded programs. If Radio-Canada is to increase its overall captioning rate, RDI in particular must caption more of its live programming.

RADIO-CANADA AND LIVE TV

Seventy-five percent of RDI programming is live. From Monday to Friday, 5 a.m. to midnight, live programs constitute 85% of its schedule.

During the regular 2004–05 season, 40% of Radio-Canada's Monday to Friday programming was live.

Both the main network's and RDI's live programming pursues very specific objectives.

For the main network, the objective is to offer lifestyle magazines on subjects of particular concern to the public (health, culture, community life, ecology, consumerism, etc.), in direct relation to current affairs, and featuring interaction with the public (by fax, phone, email, voicemail).

Live broadcasting is the core mission of the all-news channel RDI, which broadcasts events live 24/7 as they happen, in Canada and around the world.

RDI FUNDING

Radio-Canada's Réseau de l'information is operated by CBC/Radio-Canada under a CRTC licence. RDI's revenues are fully reinvested in its programming and operations. It is funded by subscriptions and advertising revenues. Its licence requires RDI to keep its own books, separately from Télévision de Radio-Canada. The goal is to ensure that this specialty channel funded largely by subscriptions is not financially supported by Radio-Canada's parliamentary appropriations, i.e., taxpayer money, to fund radio and TV over-the-air services.

RDI captioning stenotypists are paid from the specialty channel's own budgets.

WORKING COMMITTEE RECOMMENDATIONS

The working committee addressed two aspects of captioning at Radio-Canada: the lack of training in computer-assisted stenotypy, which accounts for the shortage of skilled staff; and the fact that Radio-Canada's real-time captioning system (Médiatex) is obsolete.

TRAINING

RADIO-CANADA/LA CITÉ COLLÉGIALE AGREEMENT

The Corporation uses stenotypists specializing in computer-assisted stenotypy to caption portions of its live schedule, and no training programs are currently available in French for this highly specialized work.

Since 2003, La Cité collégiale has offered a three-year computer-assisted stenotypy program, but has not received sufficient admission applications to start it up.

As a result, CBC/Radio-Canada and La Cité collégiale have decided to work together to introduce a program, which would turn out a sufficient number of strong applicants.

Broad terms of the agreement between CBC/Radio-Canada and La Cité collégiale:

LA CITÉ COLLÉGIALE

- In September 2005, launch a full-time, fast-track program in computer-assisted stenotypy, with 12 months of study, including a paid internship.

CBC/RADIO-CANADA

- Produce a 30-second TV spot based on a concept and copy developed by La Cité collégiale, promoting the program and providing information on the stenotypy profession and job opportunities.
- Broadcast the spot on the network and RDI, with more targeted broadcasting on the regional stations CBOFT (Ontario/Gatineau), CBVT (Quebec City and Eastern Quebec) and CBAFT (Atlantic Canada).
- Take part in La Cité collégiale's information night on March 30, 2005, and give a closed-circuit demonstration of real-time captioning as a program airs.
- Offer students from La Cité collégiale's computer-assisted stenotypy program paid internships at its Montreal production centre and hire those whose performance and skills meet the Corporation's needs.
- Take part in other promotional activities to support the program (press conferences, posters, raising awareness among its programmers and chief editors, etc.).

La Cité collégiale and CBC/Radio-Canada have signed a memorandum of understanding (see appendix) to put the agreement into effect. Radio-Canada representatives took part in La Cité collégiale's information night, and the Radio-Canada program *37.5* broadcast a report and interview on stenotypy, the labour shortage, and the new training program at La Cité collégiale.

For the La Cité collégiale training program to start in September 2005, there must be a minimum of 15 admissions. If this minimum level is not reached and the program is not offered in the 2005–06 school year, the action plan schedule will be pushed back one year and representatives of CBC/Radio-Canada and La Cité collégiale will work together to implement a new marketing plan.

REPLACEMENT OF MÉDIATEX

The real-time captioning system developed and used by Radio-Canada continues to meet the Corporation's needs, but must be replaced. The platform must be updated to improve signal transmission, considerably increase the capacity of the dictionary available to stenotypists, and configure the system for networked use.

The replacement cost has been incorporated into the Corporation's capital plan for fiscal 2005–06.

The Corporation's Broadcast Engineering unit is currently analyzing the information it received further to a request for information on systems suitable for replacing Médiatex.

Using this information, the Corporation will issue a call for tenders with a list of specific technical and operational criteria. The cost will be a priority criterion, but the system selected must also enable the Corporation to increase the quantity and quality of its real-time captioning, make signal transmission faster and more reliable, and improve overall system flexibility.

The new system is to be in place by January 2006.¹

VOICE RECOGNITION

Radio-Canada's captioning unit has been using *Dragon Naturally Speaking* since 2002. The software is currently used for offline captioning only, because it is too slow for live broadcasts.

In stenotypy, voice recognition has the benefit of not requiring lengthy, specialized training. However, developing the profiles of voicewriters (the intermediaries between speech and onscreen transcription) is a long process.

To our knowledge, voice recognition technology is not sufficiently advanced to provide the level of quality needed for real-time captioning. It will likely take another few years to get there. In the meantime, Radio-Canada will continue to focus on stenotypy, while keeping a very close eye on technological advances.

¹ Note: Regardless of which system is selected, the interfaces currently in use are compatible with multiple stenotypy keyboards. This is an important detail, since Radio-Canada stenotypists now use the *Grandjean* keyboard, while those trained at La Cité collégiale will use the *Stenograph* keyboard.

**TÉLÉVISION DE RADIO-CANADA
INCREASING REAL-TIME CAPTIONING ON THE NATIONAL NETWORK AND RDI**

ACTION PLAN – TRAINING, HIRING & TECHNOLOGY UPGRADES

Completion Dates	Activity	Comments	% CC Radio-Canada	% CC RDI
March 2005	Hiring of two stenotypists and one captioner			
In progress	Analysis of voice recognition technology for real-time captioning Radio-Canada/La Cité collégiale agreement	In conjunction with CRIM (Centre de recherches informatiques de Montréal)	91%	52%
April, May, June 2005	On-air and in-house promotion of the computer-assisted stenotypy training program at Ottawa's La Cité collégiale; production of the spot by Radio-Canada Call for tenders to replace Médiatex; analysis and selection	Approximate value: Spot production: \$12,000 Airing: \$150,000 to \$200,000	92%	52%
September 2005	Beginning of the fast-track computer-assisted stenotypy program at La Cité collégiale (12 months, full time)	Minimum requirement: 15 student registrations		
January 2006	Installation of the system replacing Médiatex Implementation of an initial trial phase: <i>the use of voice recognition for real-time captioning</i>	Full rollout will depend on the learning curve for the system. It is difficult to predict when voice recognition technology will be suitable for real-time captioning. The Corporation has therefore not considered the possibility of using this technique to increase the captioning rate.	92%	52%
	Upcoming meetings between Radio-Canada and La Cité collégiale in spring 2006: evaluation of the program's first year and the advisability of rolling over the April 2005 agreement (on-air program promotion by Radio-Canada)		92%	52%
Spring 2006	The two stenotypists hired in February 2005 go on air in real time.			

Completion Dates	Activity	Comments	% CC Radio-Canada	% CC RDI
Summer 2006	Two La Cité collégiale student interns in Radio-Canada's captioning unit	The interns will be selected by Radio-Canada. Two stenotypists and two captioners were hired in February 2005. The stenotypists should be on air in real time in March 2006. It is estimated that a stenotypist working at a rate of 110 words/minute will need approximately one year's training to reach the 200 words/minute needed to go on air in real time.	93%	64%
September 2006	Hiring of two interns for Radio-Canada's captioning unit On-the-job training: offline captioning, compiling dictionaries (1 year)	The interns must reach a minimum rate of 110 words/minute to be hired by Radio-Canada. RDI funds these two new stenotypist positions from its budgets.		
Summer 2007	Two more La Cité collégiale student interns			
September 2007	The first two La Cité collégiale interns go on air in real time.		94%	76%
Summer 2008	One more La Cité collégiale student intern			
September 2008	The next two Cité collégiale interns go on air in real time.		95%	88%
2009–10	The next La Cité collégiale intern goes on air.		100%	90%

NOTES

- The captioning rate indicated applies to the end of the fiscal year.
- The calculation is based on the hypothesis that one additional stenotypist will increase RDI's captioning rate by 6% a year. For 2009–10, the rate has been rounded off to 90%.
- The network broadcasts approximately 18 hours of programming a day, 126 hours a week, and 6,552 hours a year.
- RDI broadcasts 24 hours a day, for 168 hours a week and 8,736 hours a year. Captioning 90% of its programs represents a total of 7,862 hours a year.

- **Beginning in 2010, 90% of RDI's program schedule will be captioned. Radio-Canada undertakes to provide 100% captioning during RDI's two prime-time periods, from 6 a.m. to 10 a.m., and from 4 p.m. to midnight.**
- **Radio-Canada will closely monitor technological advances, especially in voice recognition, and use them to attain the goal of 100% captioning on RDI by 2012.**
- **CBC/Radio-Canada will regularly report to the CHRC on the implementation of its action plan. The first report will be submitted in mid-August 2005.**

Appendix 1

MEMBERS – WORKING COMMITTEE ON FRENCH-LANGUAGE CLOSED CAPTIONING

NAME	TITLE	ORGANIZATION
Danielle Desjardins	Director, Regulatory Affairs & Strategic Planning	CBC/Radio-Canada
Ghislain Tremblay	Site Director	CBC/Radio-Canada
Bertrand Turgeon	Director, Technical Production and Television Design	CBC/Radio-Canada
Denise Normandin	Director, Post-production and Presentation	CBC/Radio-Canada
Marc Cavanagh	Associate (Electronics), Broadcast Engineering	CBC/Radio-Canada
Claude Desjardins	Supervisor, Closed Captioning	CBC/Radio-Canada
Mireille Gauvin	Manager, Financial Management – Information	CBC/Radio-Canada
Marie-Philippe Bouchard	Senior Director, Resources – Information	CBC/Radio-Canada
Claude Bergeron	Vice-President, Training	La Cité collégiale
René Allen	Director, School of Administration and Hospitality	La Cité collégiale
Lise Frenette	Senior Communications Manager	La Cité collégiale
Philippe Dufresne	Legal Counsel	Canadian Human Rights Commission
Ikram F. Warsame	Lawyer	Canadian Human Rights Commission
Peter Feltham	Chief, Network Management and Operations	Senate
Rémi Payette	Human Resources Consultant	Senate
Christian Ray-Coquais	Parliamentary Stenographer	Senate
Monique Roy	Editor (French), Debates Services	Senate
Jean-Robert Gauthier	Senator	Senate
Nathalie Rhéaume	Parliamentary Stenographer	Senate

**MEMORANDUM OF UNDERSTANDING
BETWEEN LA CITÉ COLLÉGIALE
AND CBC/RADIO-CANADA**

PREAMBLE

To caption live programming for its main network, regional stations and Réseau de l'information (RDI), Télévision de Radio-Canada employs a real-time captioning system operated by stenotypists in its Montreal production centre.

This system enables Télévision de Radio-Canada to meet and even exceed CRTC expectations vis-à-vis the percentage of its programming to be captioned for the deaf and hearing-impaired.

The CRTC requires that French-language broadcasters (conventional networks and specialty channels) achieve a 90% captioning rate across their schedules over the next few years. This objective is currently difficult to attain, owing to a shortage of staff qualified to caption in real time using the computer-assisted stenotypy method.

Based in Ottawa, La Cité collégiale is prepared to introduce a computer-assisted stenotypy certificate program in September 2005. The course would be offered as a one-year fast-track program including a paid internship in the field.

Memorandum of Understanding

Whereas La Cité collégiale must recruit at least 15 students to ensure the introduction of the fast-track computer-assisted stenotypy training program;

and whereas CBC/Radio-Canada wishes to support La Cité collégiale's marketing and communications strategies as part of its recruitment initiatives, in order to ensure that it is able to hire competent staff for its real-time stenotypy unit;

CBC/Radio-Canada agrees to:

- . • produce a 30-second television commercial—La Cité collégiale shall supply the copy and content for the commercial, which are subject to approval based on CBC/Radio-Canada's Advertising Standards;
- . • air the commercial on its national network, RDI, CBOFT (Ontario/Outaouais), CBAFT (Atlantic Canada) and CBVT (Quebec City and Eastern Quebec), based on sales inventory availability, for a period of three (3) months (May to July 2005);
- . • take part in La Cité collégiale's evening information session on March 30, 2005, to provide a closed-circuit demonstration of real-time captioning during a broadcast;
- . • receive two students from La Cité collégiale's computer-assisted stenotypy program in its Montreal production centre; Radio-Canada will select the two students based on its own criteria and needs, and provide them with a two-month paid internship;
- . • if, once their internship is completed, the two students' performance is deemed satisfactory by unit heads, hire them to work in its stenotypy unit with standard entry conditions for this type of position;
- . • in the event that any CBC/Radio-Canada employees decide to complete the training at La Cité collégiale, and their performance is equal to that of other students, consider them first for the internships and positions in the CBC/Radio-Canada stenotypy unit.

In consideration for these commitments, **La Cité collégiale agrees to:**

- . • set up the fast-track computer-assisted stenotypy program to begin in September 2005; the course will last a total of 12 months, and could be offered in association with institutions involved in the field of stenotypy;
- . • provide student evaluations to help Radio-Canada select the two interns;
- . • give precedence to CBC/Radio-Canada for selecting interns to be recruited into its stenotypy unit;
- . • offer a fast-track program that will train students to type 110 words per minute by the end of the course;
- . • continue coaching the two students selected by CBC/Radio-Canada during their internship at Radio-Canada.

In the event that fewer than 15 people register for the semester beginning in September 2005, this agreement shall be terminated.

In that case, the parties shall enter into discussions again to determine whether this agreement shall be renewed with a view to launching a program in September 2006.

This memorandum of understanding applies solely to the 2005–06 program and students entering the 2005–06 program. Should the minimum number of valid registrations be received, and should this agreement be fulfilled to the satisfaction of both parties, the parties agree to look into the possibility, in early 2006, of renewing the agreement for the 2006–07 school year.

This memorandum of understanding is non-exclusive.

For La Cité collégiale

For CBC/Radio-Canada
