

ASSOCIATION OF REGISTRARS OF THE UNIVERSITIES AND COLLEGES OF CANADA

PROGRAM AND COURSE CALENDARS IN CANADIAN COLLEGES AND UNIVERSITIES: RESULTS OF A SURVEY CONDUCTED AMONG ARUCC MEMBER INSTITUTIONS DURING THE SUMMER OF 2003

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By

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PROGRAM AND COURSE CALENDARS IN CANADIAN COLLEGES AND UNIVERSITIES Table of Contents

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
CHAPTER I PROJECT BACKGROUND AND METHODOLOGY	4
I.1 Project Background.	
I.2 Project Methodology	6
CHAPTER II FINDINGS	18
II.1 Calendars in Print	18
II.2 Electronic Calendars	44
II.3 Institutional Technological Environment	72
II.4 Issues and Lessons	77
CHAPTER III TRENDS AND GUIDELINES	88
III.1Trends	88
III.2 Guidelines	90
APPENDICES	91
Appendix A – Project Charter	92
Appendix B – Calendars Survey	95
Appendix C – Who Answered the Survey?	112
Appendix D – Comments in Response to Open-Ended Questions	114
Appendix E – Calendars on the Web Addresses	148
Appendix F – Calendar Policies on the Web Addresses	152

EXECUTIVE SUMMARY

This report and its underlying study were commissioned by the 2002-2004 ARUCC Executive Committee. The report contains the findings of a comprehensive survey of the ARUCC membership, conducted during the summer of 2003, concerning Canadian colleges and universities calendar practices. Both calendar in print and electronic calendar practices were investigated and analyzed. Information was collected through a structured and comprehensive survey, administered on line, with the help of a web site constructed for this purpose.

The first chapter of the report details the project's background, mandate and methodology, and discusses the survey's sample degree of representativity.

The second chapter presents the findings, in the order of the survey's questions, by compiling, by organizing, by correlating and by analyzing the data gathered on line, for both calendars in print and for calendars on the web. It also presents the main issues highlighted by the respondents as well as the lessons which Canadian postsecondary institutions have learned in the process of producing their printed and web-based calendars of programs and courses and have reported through the survey. Tables and charts summarize and illustrate the numbers yielded by the survey for each question contained in the survey. It should be noted that, for concordance and clarity purposes, the numbering of tables and charts is based on the numbering of the questions in the survey and not necessarily on the order of the report's exposé.

The last chapter highlights recent and existing trends in this area and offers a few guidelines for sound calendar publishing, based on the report's findings and the implicit advice contained in the lessons that institutions have learned in this area of activity.

Finally, six appendices reproduce the project charter, the survey built for gathering information, the comments received in answer to open-ended questions, and list the institutions that answered the survey, addresses of calendars on the web and of calendar policies on the web, for the institutions having responded to these questions in the survey.

CHAPTER I PROJECT BACKGROUND AND METHODOLOGY

I.1 Project Background

The *Project Charter* contains the detailed mandate given to the project consultant (see Appendix A). The mandate was executed in two phases.

At the ARUCC 2002 Conference, held in Edmonton in June 2002, an informationgathering session on Electronic Calendars was attended by more than 30 delegates interested in this topic (Session C6, *Best Practices for Web Calendars: a Round Table*). At this session, the project consultant moderated the discussion, based on a preliminary list of issues. The panel was composed of:

Jane Cayford, Registrar, Acadia University

Glenn Collins, University Registrar, Memorial University of Newfoundland

Alex Goody, Associate Registrar, Undergraduate Program Services, University of Guelph

Yves Jodoin, Directeur, Service de l'admission, Université du Québec à Montréal

Angela Runnals, Assistant Registrar, Communication Services, University of British Columbia

Subsequently, a Project Advisory Committee was formed. The role of the Advisory Committee was to help guide the research, by examining the working documents, by making comments and generally by giving feedback and advice to the project consultant. The Advisory Committee was comprised of:

Deanne Dennison, Registrar, Dalhousie University

Bettyanne Gargaro, Associate University Registrar, Records and Services Queen's University

Alex Goody, Associate Registrar, Undergraduate Program Services University of Guelph

PROGRAM AND COURSE CALENDARS IN

CANADIAN COLLEGES AND UNIVERSITIES Chapter I - Project Background and Methodology

David Johnston, Registrar, University of Calgary

Karen LeDrew, Associate Registrar, Records and Systems, University of Waterloo

France Myette, Registraire, Université de Sherbrooke

Angela Runnals, Assistant Registrar, Communication Services University of British Columbia

Kathleen Massey, Registrar, Centennial College

Lea Pennock, Director of Student Information Systems, University of Saskatchewan.

The project consultant is grateful to the Advisory Committee and thanks its members for the help they provided and for their constructive suggestions, particularly regarding the building of the survey and of the report's structure.

The project consultant performed an extensive search of material on calendars of postsecondary programs and courses, using library catalogs, including the AUCC library. Unfortunately, there isn't a whole lot of printed material on this narrow topic. The research on the web yielded some material, in the form of a couple of PowerPoint presentations made at AACRAO conferences about university calendars ("catalogs" in US parlance) on the web. Since, early in the project, it was decided to limit the research to Canadian postsecondary institutions, this material is not directly relevant to the study.

The project consultant built a solid survey infrastructure consisting of two dynamic web sites, one public, for publishing and administering the survey, and one private, for joint work with the Advisory Committee on the draft survey and on other aspects of the project.

This involved, among other things, designing the two web sites and putting and maintaining content on the websites. The project public web site was located at http://aruccecalendars.homeunix.org:8080/ecalendars/.

The project public web site was open to everyone. It housed all public materials pertaining to the project, including the project charter, which spells out the research mandate. It contains the finalized on line survey destined to ARUCC members, after the survey has been validated by the Advisory Committee. It also contained a discussion forum for those who wish to engage on debate on the issues or who simply want to comment on the project. One subscribes to the forum by entering a current e-mail address and a password. Unfortunately, the discussion forum was not used.

The project private web site was located at http://arucctranscriptguide.homeunix.org:8080/eCalPriv/.

The project's private project web site was intended for the exclusive use of the Advisory Committee and it could only be accessed by members of the Advisory Committee. Its own private discussion forum could be used to comment on the posted documents and to make suggestions on working papers, particularly the draft survey and, at a later stage, on the draft report. The private site contains the draft survey on practices regarding printed and electronic calendars. The survey was published in both English and French, each in html and pdf formats.

I.2 Project Methodology

The objective of the study, as stated in the project charter, was *to investigate and report best practices around production of electronic calendars at Canadian post-secondary institutions*. In fact, the study investigated and is reporting on existing practices as related on a voluntary basis by Canadian post-secondary institutions, without passing judgment as to which are "best" practices.

The issues related to the notion of "best practices" are difficult ones. To define best practices presupposes that one has been able to come up with criteria against which practices can be measured and that these criteria are widely and universally accepted both by the subjects of the study. Such is not the case.

It is for this reason that this study focuses on observable practices, without attempting to qualify them. The reader can make up his or her own mind as to what are desirable practices. Certain practices that might not be ideal from an abstract perspective, might very well be the very best practices that an institution can attain given its particular circumstances. In this case, as in many other cases, "best" is a relative, not an absolute notion. Notwithstanding this methodological limitation, the study paints an accurate portrait of calendar practices in Canadian post-secondary institutions and of their recent evolution.

The main vehicle for gathering data and information for this study was an extensive and structured research survey designed by the project consultant with the help of the Advisory Committee and administered on line between July and October 2003. ARUCC members were informed of the existence of the project through notes posted on ARUCC Listserv and through ARUCC's website's main page and were invited to answer the online survey.

Given the virtual non-existent literature on the topic, the study depended entirely on the quality of the survey and on the number and the quality of the answers to the survey. The survey is structured and comprehensive. It underwent more than two dozen iterations / revisions, between the English and French versions, as well as the html and pdf versions.

The survey (see Appendix B) is an elaborate tool, which contains more than sixty questions and areas for comments. It needed to be elaborate and very structured, because of the complexity of the issues and because it is necessary to base the study on solid facts. The survey required about half an hour to answer on line, after one has been acquainted with the questionnaire. For this purpose, the project consultant provided, along with the interactive on line versions, downloadable questionnaires in pdf format.

The survey was launched to the ARUCC membership, through the ARUCC Listserv, in July 2003, upon approval by the Advisory Committee and the Executive Committee. The summer period was chosen deliberately, in order to maximize the response rate. The initial deadline of end of August was postponed for the same reason. This helped obtain completed surveys from 46 institutions, a very honorable response rate of 34% of ARUCC member institutions. The number of returned questionnaires also compares very favorably with the number of answers obtained to previous inquiries, albeit much less extensive and systematic, about web calendars posted on the ARUCC Listserv (21 answers to a seven questions, non dated, inquiry regarding calendars on the web and 14 answers to a single question inquiry about the passage from print to web calendar, in March of 2001).

Since answering the survey was entirely a voluntary action and since no control could be exercised over the institutional characteristics of the respondents, other than to postpone the deadline for answering the survey in order to increase the number of respondents, the sample can be considered as being a self-selecting sample. This brings up the question of how representative is this self-selecting sample of the ARUCC member institutions, from the triple standpoint of their distribution by type of institution, by language and by the region.

The following tables and charts provide answers to these questions.

Table and chart 01 contain the distribution of response rates, by region and by type of institution.

Table and chart 02 show the distribution of response rates according to institution type and compares it with the institution type distribution among ARUCC member institutions

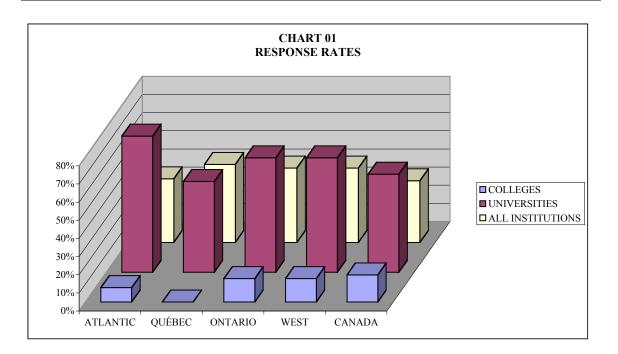
Table and chart 03 compare the distribution of response rates according to region with the regional distribution of ARUCC member institutions.

Table and chart 04 compare the distribution of response rates according to the teaching language with the language distribution of ARUCC member institutions.

Table and chart 3.06 show the distribution of response rates according to the size of student population of respondents. No comparison between the sample and the membership was possible in this case.

	SURVEY RES	PONSE RATES	
	COLLEGES	UNIVERSITIES	ALL
ATLANTIC			
DIRECTORY	12	8	20
SURVEY	1	6	7
ATLANTIC	8%	75%	35%
RESPONSE			
RATE			
QUÉBEC			
DIRECTORY	3	18	21
SURVEY	0	9	9
QUÉBEC	0	50%	43%
RESPONSE			
RATE			
ONTARIO			
DIRECTORY	15	19	34
SURVEY	2	12	14
ONTARIO	13%	63%	41%
RESPONSE			
RATE			
WEST			
DIRECTORY	46	16	62
SURVEY	2	12	14
WEST	13%	63%	41%
RESPONSE			
RATE			
CANADA			
DIRECTORY	72	65	137
SURVEY	11	35	46
CANADA	15%	54%	34%
RESPONSE			
RATE			

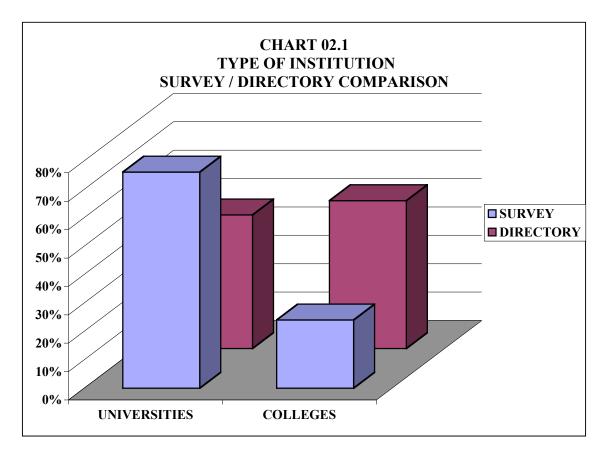
TABLE O1 SURVEY RESPONSE RATES



Overall, the response rate to the survey is 34%. Statistically, this represents a confidence degree of 80% with a possible margin of error of 10%. Among colleges, the overall response rate was 15%, with the West showing the highest rate (17%), followed by Ontario (13%) and by Atlantic colleges (8%). The overall response rate for universities was 54%, with the Atlantic region leading (75%), followed by Ontario (63%). Québec and Western universities both showed a very respectable 50% response rate.

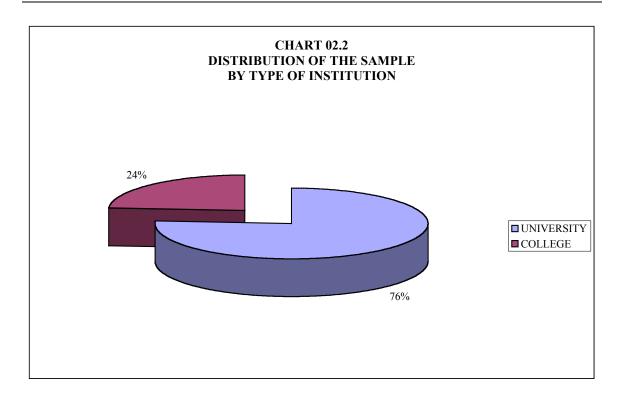
TABLE 02TYPE OF INSTITUTION

	UNIVERSITY	COLLEGE
SURVEY DATA	35	11
SURVEY	76%	24%
DISTRIBUTION		
DIRECTORY DATA	65	72
DIRECTORY	47%	52%
DISTRIBUTION		



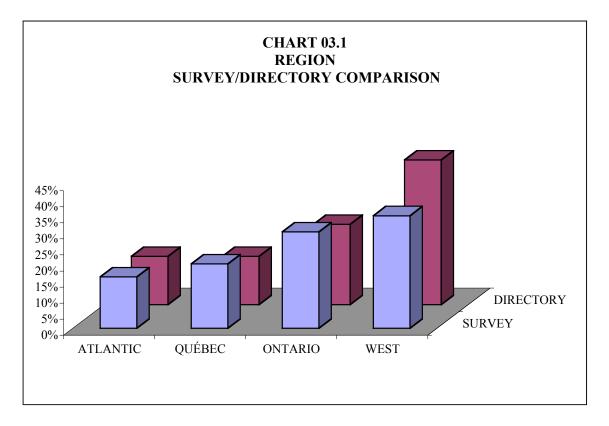
PROGRAM AND COURSE CALENDARS IN

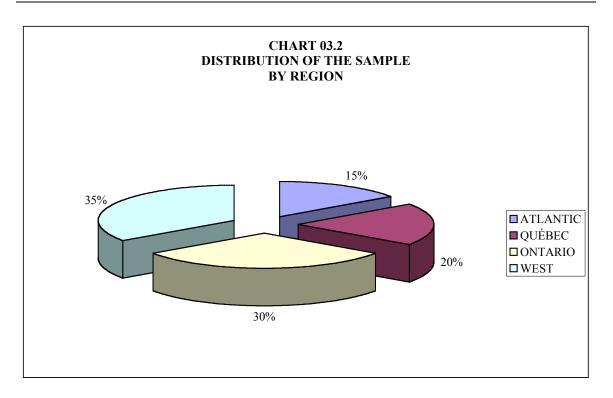
CANADIAN COLLEGES AND UNIVERSITIES Chapter I - Project Background and Methodology



Relatively more universities than colleges answered the survey. 76% of the respondents were universities and 24% were colleges. The ARUCC membership is composed of 47% universities and 52% colleges. From this angle, colleges are under represented in the self-selecting sample whereas universities are over represented.

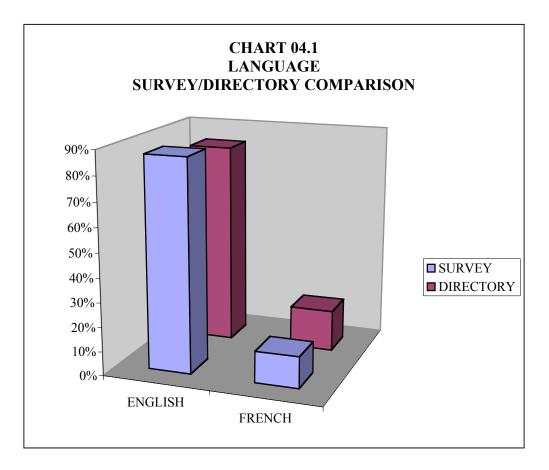
TABLE O3 REGIONAL DATA					
	ATLANTIC	QUÉBEC	ONTARIO	WEST	
SURVEY DATA	7	9	14	16	
SURVEY	16%	20%	30%	35%	
DISTRIBUTION					
DIRECTORY	20	21	34	62	
DATA					
DIRECTORY	15%	15%	25%	45%	
DISTRIBUTION					

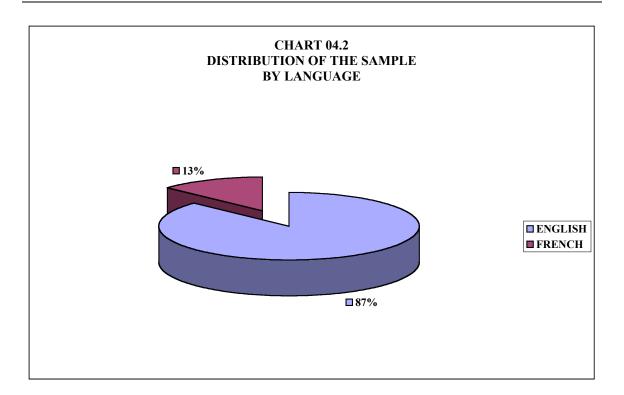




Québec and Ontario institutions were slightly over represented in the survey selfselecting sample, whereas western institutions were somewhat under represented. Atlantic institutions were about at their level of representation in ARUCC. From a regional perspective, the self-selecting sample can be considered generally representative of the ARUCC membership.

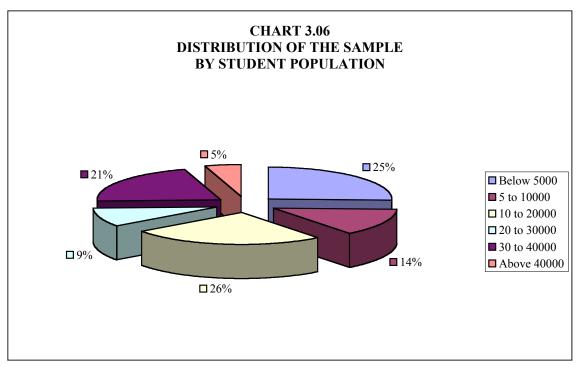
TABLE 04 LANGUAGE DATA				
	ENGLISH	FRENCH		
SURVEY DATA	40	6		
SURVEY	87%	13%		
DISTRIBUTION				
DIRECTORY DATA	114	23		
DIRECTORY	83%	17%		
DISTRIBUTION				





Anglophone institutions were somewhat over represented whereas francophone institutions were somewhat under represented in the random survey sample. The gaps are not significant though, therefore the self-selecting sample can be considered to be generally representative of the distribution of ARUCC member institutions according to language.

TABLE 3.06STUDENT POPULATION DATA					
BELOW	5 000 to	10 000 to	20 000 to	30 000 to	OVER
5 000 11	<u>10 000</u> 6	20 000 11	<u>30 000</u> 4	<u>40 000</u> 9	40 000 2
25%	14%	25%	9%	21%	5%



It is not known if the sample is representative of ARUCC membership from the standpoint of the student population size. Nevertheless, on the basis of the previous variables, the self-selecting sample of institutions that answered the survey can be considered representative of the ARUCC member institutions.

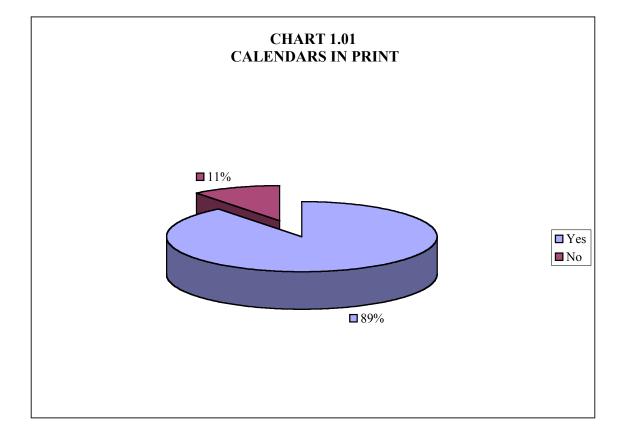
CHAPTER II FINDINGS

II.1 Calendars in Print

The vast majority of Canadian postsecondary institutions (89%) publish one or more printed calendars.

TABLE 1.01	
Does your institution publish a printed calendar of programs and courses?	

Yes	No
42	5
89%	11%



In two thirds of institutions a single institutional printed calendar is being published. In almost a third of institutions, individual faculties also publish their own calendar.

TABLE 1.02
Do individual faculties publish their own calendar, in addition to the University-
wide calendars?

Yes	No	Some faculties	Not applicable
4	30	8	3
9%	66%	18%	7%

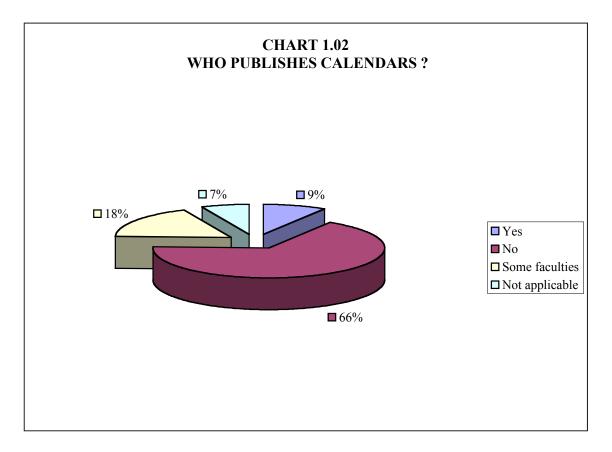
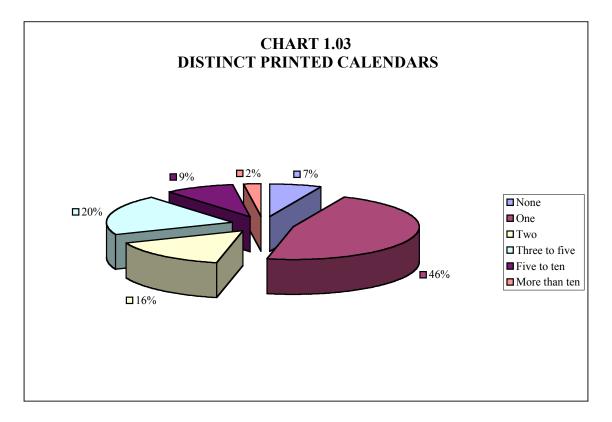


TABLE 1.03 How many different printed calendars does your institution publish?					
NONE	ONE	TWO	THREE TO FIVE	FIVE TO TEN	MORE THAN TEN
3	21	7	9	4	1
7%	46%	16%	20%	9%	2%



The majority of institutions (46%) publish one printed calendar. A fifth of the institutions publish three to five printed calendars and 16% publish two printed calendars.

79% of the institutions consider that their printed calendars have legal value, whereas 15% do not consider them legally binding.

TABLE 1.04
Do your institution's printed calendars of programs and courses have legal
value from the point of view of students' rights and obligations?

YES	NO	NOT APPLICABLE
37	7	3
79%	15%	6%

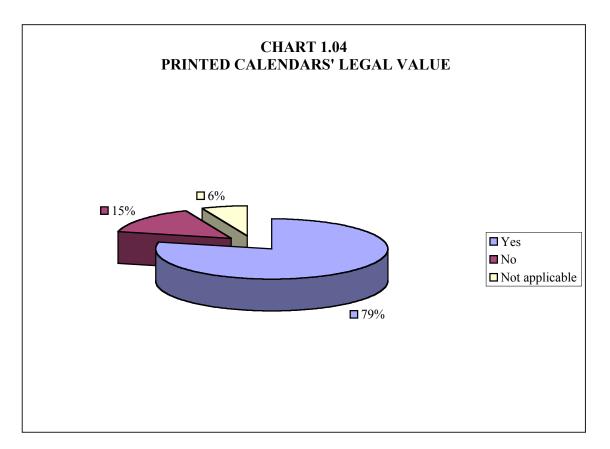


Table 2.06 provides the corresponding values for the web-based calendars. 60% of institutions affirm the electronic calendars' legal value, whereas 14% do not consider them legally binding. Interestingly, this last number is roughly equivalent to the number of institutions that do not consider that their printed calendar is legally binding. This might suggest that the views about the legal status of the calendars are not a function of the calendar's physical type of support (printed or electronic), but rather that they are dictated by other considerations.

TABLE 2.06
What is the legal status of the electronic solution vis-à-vis the students' rights
and obligations?

IT HAS LEGAL VALUE	IT DOES NOT HAVE LEGAL VALUE	I DO NOT KNOW
25	6	11
60%	14%	26%

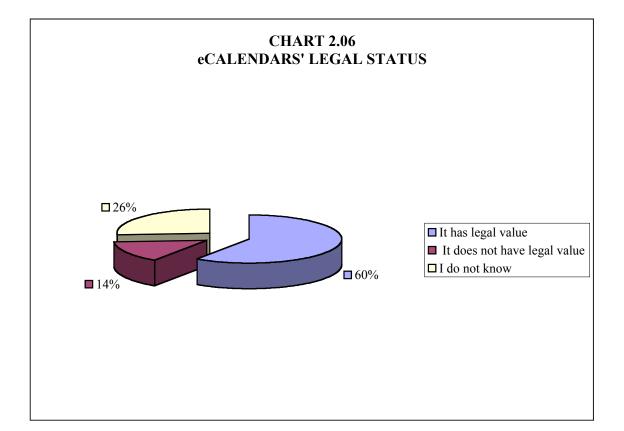
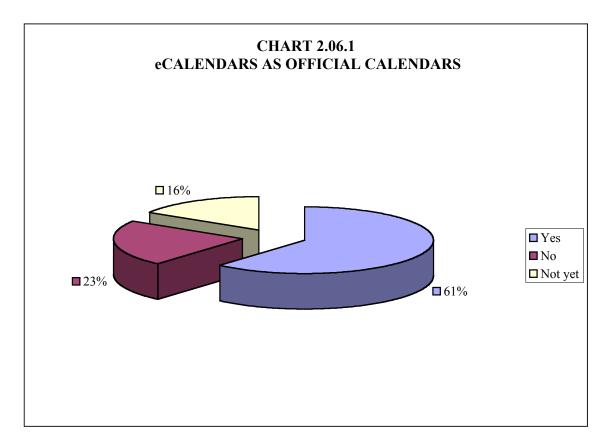


 TABLE 2.06.1

 If it has legal value, does your institution consider its web-based calendar as the institution's official calendar?

YES	NO	NOT YET
19	7	5
61%	23%	16%



61% of institutions consider their web-based calendar to be their official calendar. 39% of institutions do not share this view.

Interestingly, although 61% of institutions consider the web-based calendar as their official calendar, only 38% of institutions hold that the electronically updated information legally supersedes the obsolete printed information.

TABLE 2.08	
Does the electronic updated information supersede legally the obsolete)
information contained in the printed calendar?	

YES	NO	I DO NOT KNOW
15	19	5
38%	49%	13%

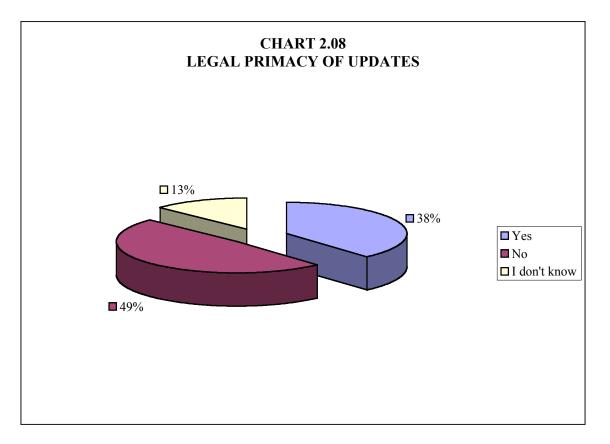
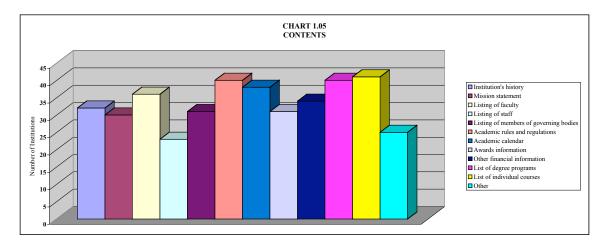


Table 1.05
Does your institution's printed calendar of programs and courses contain
sections on:

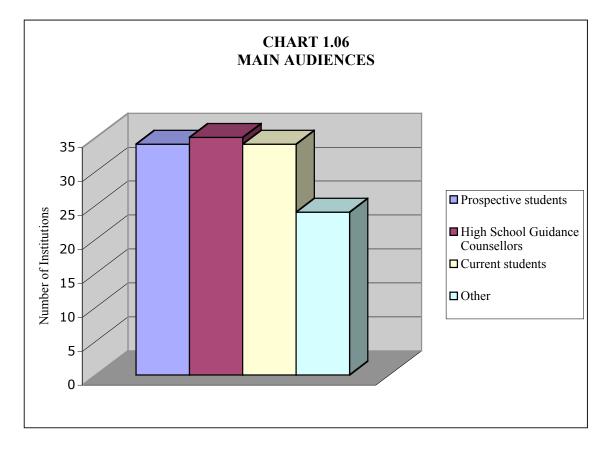
			-
INSTITUTION'S	MISSION	LISTING OF	LISTING OF
HISTORY	STATEMENT	FACULTY	STAFF
32	30	36	23
70%	65%	78%	50%
LISTING OF	ACADEMIC	ACADEMIC	AWARDS
MEMBERS OF	RULES AND	CALENDAR	INFORMATION
GOVERNING	REGULATIONS		
BODIES			
31	40	38	31
67%	87%	83%	67%
OTHER	LIST OF	LIST OF	OTHER
FINACIAL	DEGREE	INDIVIDUAL	
INFORMATION	PROGAMS	COURSES	
34	40	41	25
74%	87%	89%	54%



The content of the printed calendar is fairly standard across institutions: all institutions include in it all of the headings listed in the survey. Only half of the institutions list their non-academic personnel in their printed calendar. All the other topics are covered in proportions varying between 54% and 89% of institutions.

TABLE 1.06
What are the main audiences for your institution's printed calendar of
programs and courses?

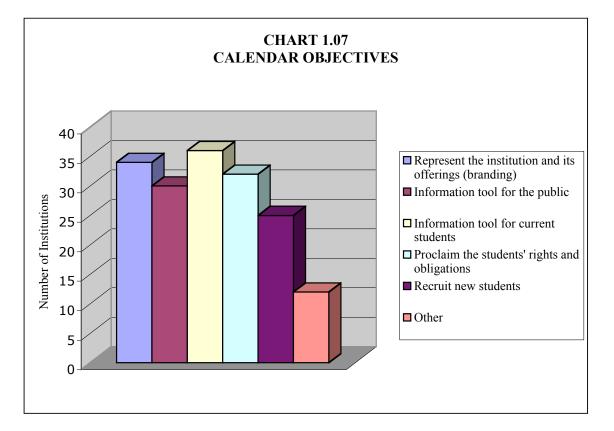
PROSPECTIVE STUDENTS	HIGH SCHOOL GUIDANCE COUNSELLORS	CURRENT STUDENTS	OTHER
34	35	34	24
74%	76%	74%	52%



Printed calendars are intended in roughly equal proportions of institutions for high school guidance counselors (in 76% of institutions), for prospective students (in 74% of institutions) and for current students (in 74% of institutions).

TABLE 1.07
What are the purposes of your institution's printed calendars of programs and
courses?

REPRESENT THE	INFORMATION TOOL	INFORMATION
INSTITUTION AND ITS	FOR THE PUBLIC	TOOL FOR
OFFERINGS		CURRENT
		STUDENTS
34	30	36
74%	65%	78%
PROCLAIM THE	RECRUIT NEW	OTHER
STUDENTS RIGHTS	STUDENTS	
AND OBLIGATIONS		
32	25	12
70%	54%	26%

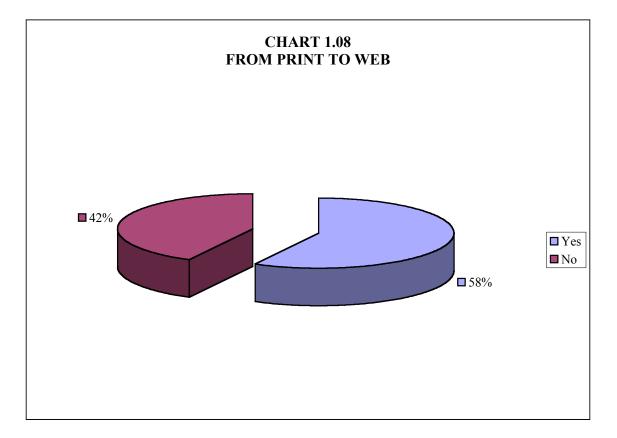


For postsecondary institutions, printed calendars are essentially information tools. Their main objectives are to inform current students (78% provide general information, 70% provide information about the students' rights and obligations) and the public at large (74%). Only a little more than half of the institutions (54%) use their printed calendars as recruitment tools. Among other uses of the printed calendars mentioned by the responding institutions:

- official record of programs and regulations in force in a given year;
- historial record of programs and personnel;
- tool for faculty promotion;
- means to acknowledge donors to scholarship and bursary programs;
- reference information and advising tool for faculty and staff;
- program and course information archive for future use.

TABLE 1.08Has there been a shift, in your institution, in the emphasis put historically onprinted calendars of programs and courses, as a result of the expansion of theInternet and of the web-based services?

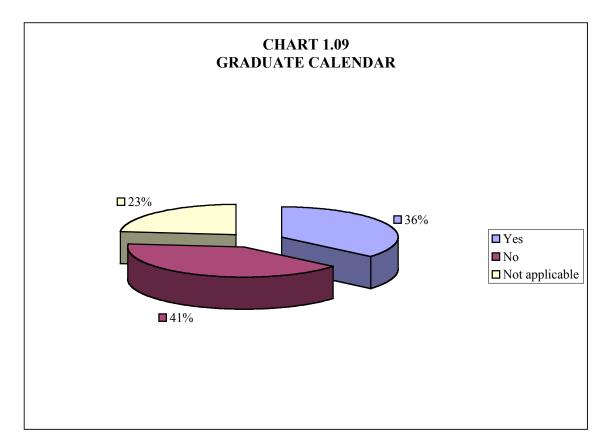
YES	NO
26	19
58%	42%



58% of institutions consider that the rise of the Internet as a mainstream communication medium has influenced the use they make of their printed calendar. Appendix D lists, in their entirety, the comments provided as explanation of the institutions' position in this regard. Taken together, the comments to question 1.08 provide a compelling portrait of the motives behind the steady movement towards providing Internet based information by colleges and universities (see Table 2.09 and Chart 2.09).

TABLE 1.09If your institution offers graduate degree programs, does your institution's
printed calendar combine graduate as well as undergraduate studies
information in the same calendar?

YES	NO	NOT APPLICABLE
17	19	11
36%	41%	23%



A little more than a third of the institutions which publish a separate graduate calendar state that its content is similar to that of their undergraduate calendar. In these cases, the reason for publishing a separate graduate calendar is clearly other than its distinct content. For 41% of institutions, its content is different.

The comments provided in answer to the question 1.10 regarding the differences in content and in the policies which govern the publication of graduate and undergraduate calendars can be found in Appendix D. Taken together, they seem to indicate that the differences are the result of local specificities and circumstances rather than some universal characteristics, intrinsic to the subject or the nature of the publications.

The vast majority of institutions (86%) publish their calendar(s) annually

TABLE 1.11				
What is the frequency of publication of your institution's printed calendar(s)?				

ANNUALLY	EVERY TWO YEARS	OTHER
39	3	3
86%	7%	7%

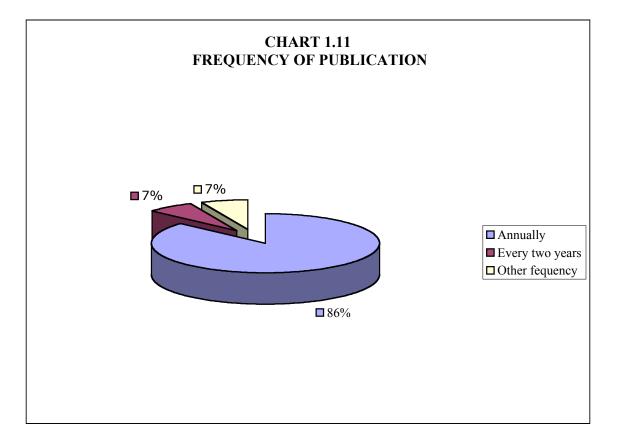
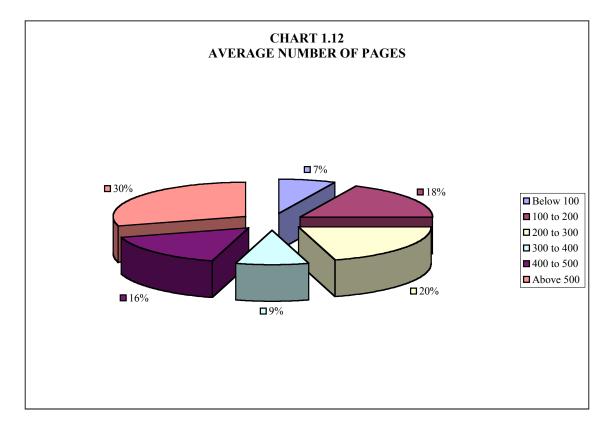


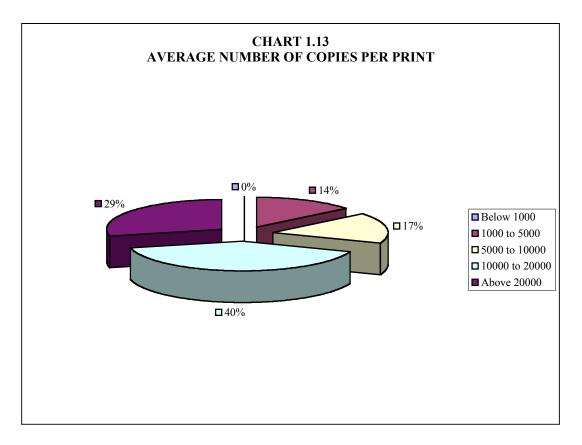
TABLE 1.12
How many pages does each printed calendar that your institution publishes
contain on average?

BELOW	100 TO 200	200 TO 300	300 TO 400	400 TO 500	ABOVE
100					500
3	8	9	4	7	13
7%	18%	20%	9%	16%	30%



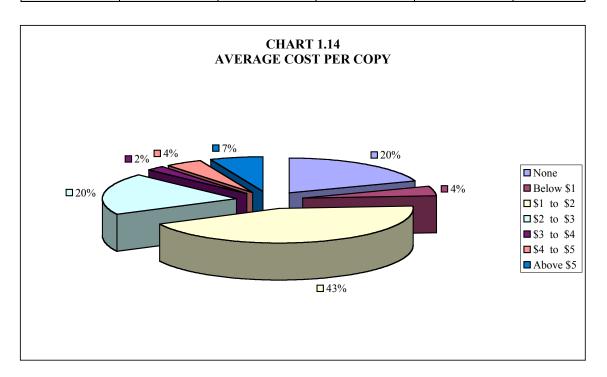
Calendars in print contain more than 500 pages in 30% of institutions. 7% of institutions printed calendars contain less than 100 pages and 20% contain between 200 and 300 on average.

TABLE 1.13 How many copies do you print per run on average?					
BELOW 1000 1000 TO 5000 5000 TO 10000 TO ABOV 10000 20000 20000 20000 20000					
0	6	7	17	12	
0	14%	17%	40%	29%	



No institution publishes less than 1 000 copies per run. 40% of institutions publish on average between 10 000 and 20 000 copies per run.

TABLE 1.14					
What is the average cost per copy?					
BELOW \$1	\$1 TO \$2	\$2 TO \$3	\$3 TO \$4	\$4 TO \$5	ABOVE
					\$5
2	20	9	1	2	3
5%	55%	24%	3%	5%	8%



In more than half of institutions, the average cost per copy of the printed calendar is \$1 to \$2. Almost a quarter of institutions declare an average cost of \$2 to \$3 per copy. All other cost values listed in the survey are met by single digit percentage of institutions.

Questions 1.15, 1.16, and 1.17 pertain to the responsibilities for maintaining the lists of valid programs and courses, for designing the printed calendar and for producing it. As one might expect, a great variety of situations prevails in this regard. Nevertheless, the Office of the Registrar exercises these responsibilities in the majority of cases.

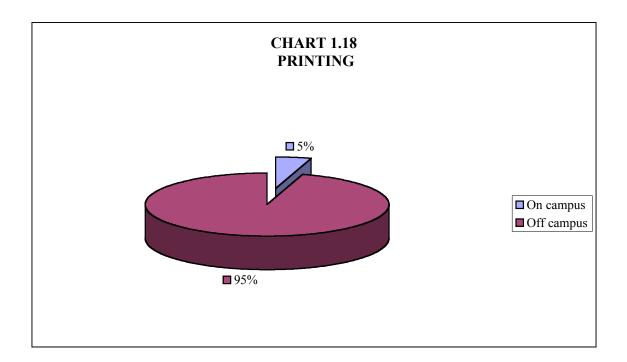
The responsibility for maintaining the lists of valid courses and programs is granted to the Office of the Registrar by 61% of institutions, either alone or jointly with other units.

The responsibility for designing the printed calendar is vested in the Office of the Registrar in 47% % of cases, either alone or jointly with other services.

Finally, the responsibility for producing the printed calendar is entrusted to the Office of the Registrar in 57 % of cases, either alone or as a joint responsibility with other service units.

95% of institutions have their calendar printed off campus.

TABLE 1.18 Is your institution's calendar being printed:		
ON CAMPUS	OFF CAMPUS	
2	40	
5%	95%	



Data driven publishing is publishing of information that is stored and updated in databases. Ideally, in the case of calendar publishing, the same database should provide data for publishing both the printed calendar and the updating of the web-based calendar.

Interestingly, while only a third of institutions use database publishing rather than desktop publishing of their calendars, in more than three quarters of institutions the same system is used to publish both the printed and the web-based calendar.

TABLE 1.19Is the production of your institution's printed calendar(s) of programs andcourses automated, that is data driven publishing rather than conventionaldesktop publishing?

YES (DATABASE PUBLISHING)	NO
14	29
33%	67%

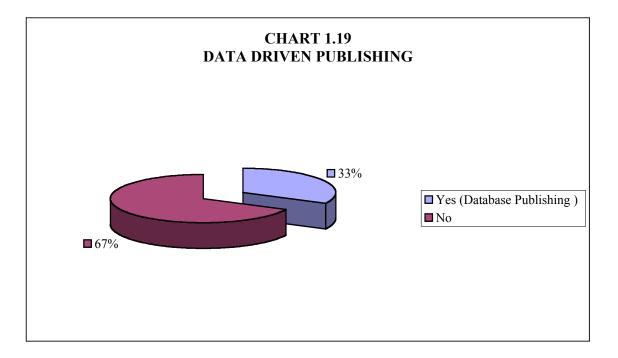
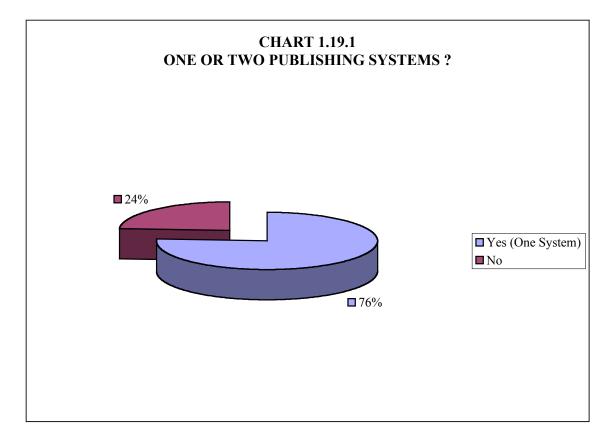


TABLE 1.19.1Does the same system allow publishing both the printed and the web based
calendars?

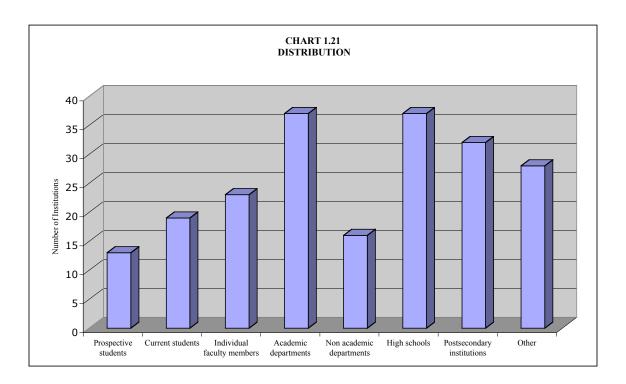
YES (ONE SYSTEM)	NO
16	5
76%	24%



Questions 1.20 and 1.21 deal with the distribution of the printed calendars. The department responsible for distribution is more often than not the Office of the Registrar.

TABLE 1.21	
Is your institution's printed calendar being distributed automatically to:	

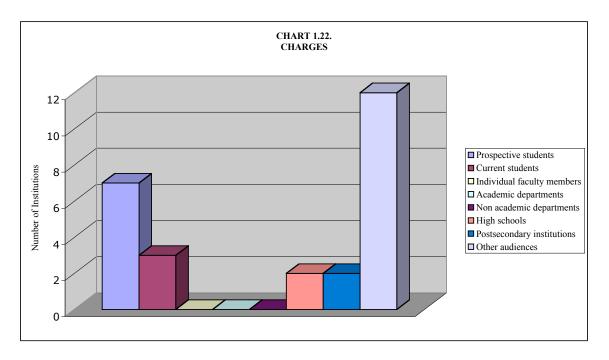
Prospective	Current Students	Individual Faculty	Academic
Students		Members	Departments
13	19	23	37
Non Academic	High Schools	Postsecondary	Other
Departments		Institutions	
16	37	32	28



Automatic distribution of the printed calendar is highest for academic departments, for high schools and postsecondary institutions, for individual faculty members, for current and prospective students.

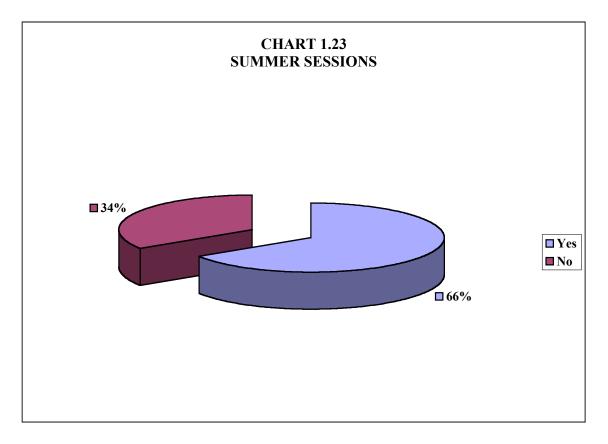
	-
TABLE 1.22	
Does your institution charge for printed calendars for each of the fo	ollowing
Does your institution charge for printed calendars for each of the h	onowing
aatagamias?	
categories?	

Prospective Students	Current Students	Individual Faculty Members	Academic Departments
7	3	0	0
Non Academic	High Schools	Postsecondary	Other
Departments		Institutions	
0	2	2	12



Relatively few institutions charge their audiences for the printed calendar. The categories being charged by some institutions are prospective students, current students, high schools, postsecondary institutions and some other categories such as international requests and the general public. The amounts charged vary between \$6 and \$10. For academic and non-academic departments, as well as individual faculty members the calendar of their home institution is free of charge in all institutions.

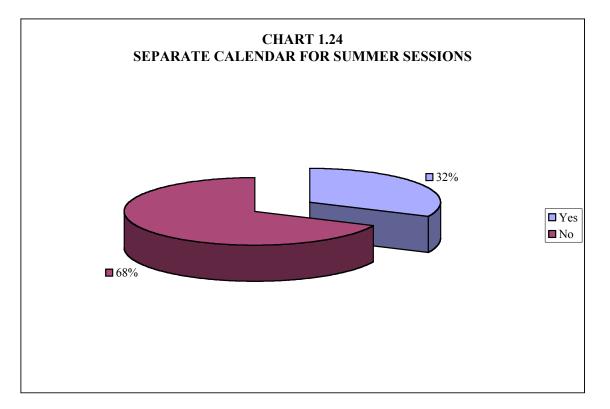
TABLE 1.23 Does your institution's printed calendar also apply to summer sessions?		
YES NO		
29	15	
66%	34%	



In two third of institutions, the calendar applies also to summer sessions. A third of the institutions publish a separate calendar for the summer sessions.

TABLE 1.24
Does your institution publish a separate printed calendar for the summer
sessions, rather than just a schedule of the summer courses offered?

YES	NO
8	17
32%	68%

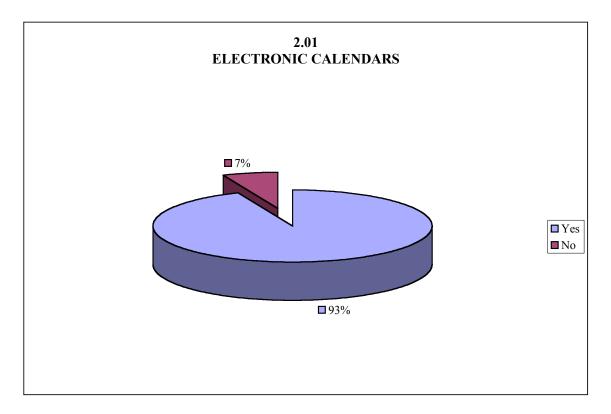


II.2 Electronic Calendars

An overwhelming 93% of institutions publish their calendars electronically. Thus, while it is relatively new, this approach to provide calendar information is now virtually universal in Canadian postsecondary education.

	TABLE 2.01		
	Has your institution implemented an electronic calendar of programs and		
courses?			
L			

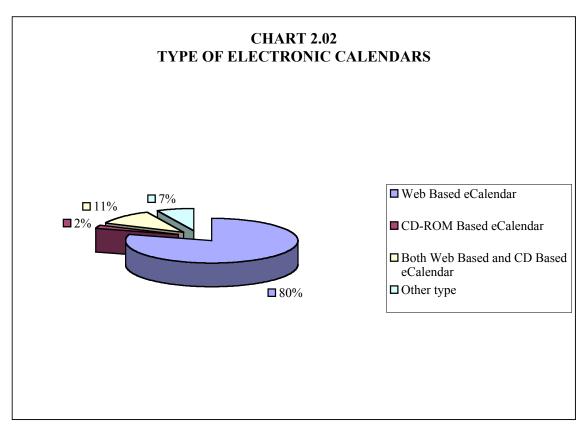
YES	NO
43	3
93%	7%



Appendix D contains the comments which explain the extensive implementation of electronic calendars by Canadian postsecondary institutions: ease of access, reduced costs, increased student demand for Internet based services and relative ease of maintenance are among the most often cited reasons behind this approach to provide calendar information.

80% of institutions have web-based calendars, 2% have CD-ROM-based calendars and 11% have both. An alternative electronic calendar solution is to provide on line the calendar or parts of it in Adobe's Portable Document Format. Since this is but another form of web-based calendars, web-based calendars are therefore implemented in the vast majority of institutions.

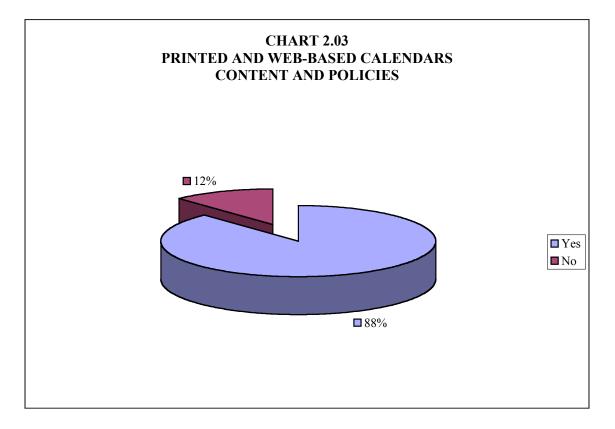
TABLE 2.02What type of electronic solution has your institution implemented?				
WEB-BASED ONLY	CD ROM-BASED ONLY	ВОТН	OTHER (.PDF)	
35	1	5	3	
80%	2%	11%	7%	



77% of institutions call their electronic calendar "Web Calendar" while 23% call it some other name, such as "On-line Calendar", "On-line Course Calendar", "Web Academic calendar". 78% of institutions intend to stick with the current name of their electronic calendar.

TABLE 2.03If your institution publishes a web-based calendar, do its content and thepolicies that govern its publication parallel those of your institution's printedcalendar?

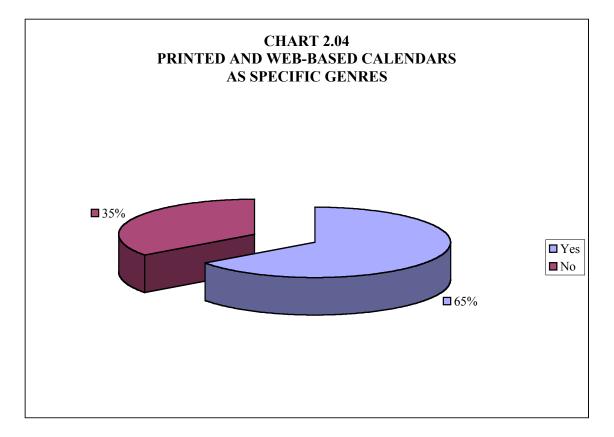
YES	NO
37	5
88%	12%



In 88% of institutions, both the printed and the web-based calendar have identical content and the same policies govern their publication. In 12% of institutions, the content of the printed and of the web-based calendar, as well as the policies which govern their publication are different.

TABLE 2.04
Is your institution's electronic calendar of programs and courses simply an
electronic version of its printed calendars of programs and courses?

YES	NO
28	15
65%	35%



65% of institutions characterize their web-based calendar as a simple electronic version of their printed calendars, while 35% hold the position that their web-based calendar is more than that.

This is consistent with the answers to the following question, regarding the features of the web-based calendars: a third of institutions are of the opinion that their web-based calendar is a dynamic, interactive application, based on web standards and protocols.

TABLE 2.05
Is your institution's electronic calendar of programs and courses a dynamic,
even interactive, Internet application, based on web standards and protocols?

YES	NO	I DO NOT KNOW
13	22	7
31%	52%	17%

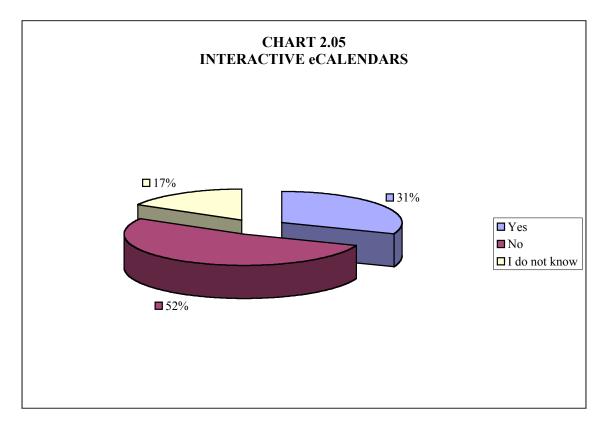
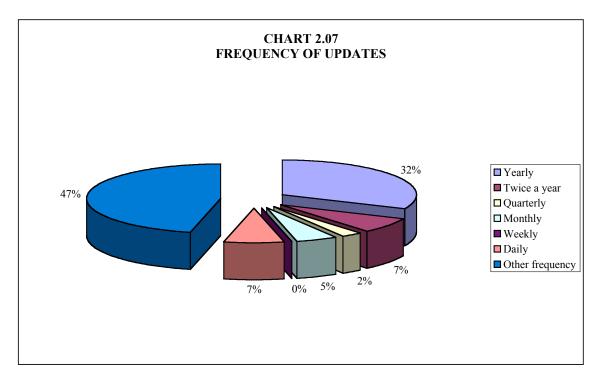


TABLE 2.07 How often is the web based calendar information updated?					
YEARLY	TWI	TWICE A YEAR QUARTER			MONTHLY
13	3		1		2
47%	7%		2%		5%
WEEKLY		DA	ILY		OTHER
				F	REQUENCY
0		3	3		19
0		79	%		32%



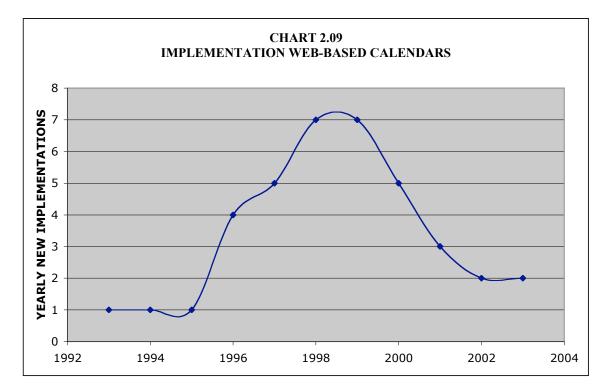
The majority of institutions (47%) update their web-based calendar once a year. 32% declare other updating frequencies than those listed, such as hourly, on a constant basis in real time, or as required. Institutions that update their web-based calendar more frequently than once a year have found various means to highlight changed information through the publication: effective date of change, lists of updates, flagging of changed topics, email, newsletters, etc. (see Appendix D for the transcription of comments in their entirety).

PROGRAM AND COURSE CALENDARS IN CANADIAN COLLEGES AND UNIVERSITIES Chapter II - Findings

The answers to question 2.09 regarding the implementation date of the web-based calendars show their steady growth during the last decade, with a peak in the number of yearly implementations in 1998 and 1999. The almost perfectly shaped bell curve indicates that most of the development has already occurred. This correlates with the data shown in table 2.02 which indicate that 98% of institutions offer web based calendar services, in one form or another.

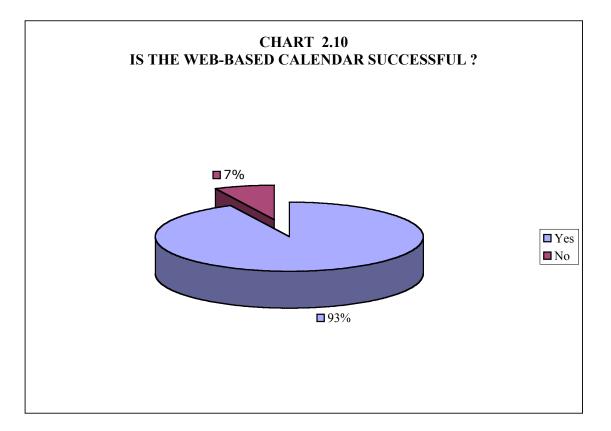
TABLE 2.09		
When was your institution's electronic calendar implemented?		

1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
1	1	1	4	5	7	7	5	3	2	2



A vast majority of institutions (93%) consider that their web-based calendar is a success.

TABLE 2.10				
Do you consider your institution's web-based calendar to be successful?				
YES NO				
38 3				
93%	7%			



For the few who do not consider their web-based calendar successful, it is because it is not up to date, because it is not interactive, or because the information is not treated according to the requirements inherent to the particular medium that is the web:

I would prefer the calendar to be dynamic and updated on a more regular basis.

Not interactive or dynamic; inadequately linked to other material; too much unnecessary information included; it is merely a dump of the printed calendar.

The answers to the open-ended questions 2.11 and 2.12 spell out the benefits gained by institutions having implemented web-based calendars, as well as what are seen to be drawbacks of this method of delivering calendar information. Appendix D contains all the comments made in this regard. Below are excerpts from these comments:

Benefits

- Searchable, cheap, accessible.
- It is accessible and current.
- Easier to update information, cheaper if reducing print costs.
- Allow us to publish the most current information.

- Huge savings in time and money for the institution. Once this was implemented, what used to take approximately one month of staff time to organize and publish (printed calendar). is now maintained, up-dated as needed. Many Departments now take a more active role regarding their programs, ensuring their program information on the website is current.

- Reduction in production and addendum costs and maintenance of one master document.

- *Provides better service to students, reduces number and cost of printed version, easier to update.*

- Information can be updated regularly and archived online, it can provide more detailed information or links to additional information not available in print.

- It is current, convenient, easy to access. Students, staff, faculty like it. We have received lots of positive feedback.

- Less paper, easy access up-to-date information.

- More economical to produce; more current; we have web registration and other web based services for students, faculty and staff who are more accustomed to (and prefer) the web calendar.

- Errors can be easily corrected. Information is more up-to-date.

- Availability of the information to national and international sources. CALENDARS IN

- Reduced costs in providing print calendars.

- It provides broader access and minimizes the number of requests for printed calendars.

- Accessibility is the greatest benefit.

- Cost effective - cheaper than mailing out calendars. It can be viewed immediately. *Errors can be fixed immediately.*

- It offers students incredible flexibility, it reduces our reliance on print and paper, it allows year-round updating of course and program information.

- Convenience for students, immediate access at no cost for prospective students cost savings for university minimal environmental impact.

- Freely available at no cost.

- Lower mailing costs links to web registration.

- Ability to update on a regular basis, cost savings.

- Mise à jour instantanée. Présentation plus vivante que sur papier. Possibilité de garder un historique des changements. Les informations sont disponibles dans le monde entier. Possibilité de recherche de mots etc.

- Mise à jour régulièrement, possibilité de mettre des liens vers d'autres services de l'institution.

- Rapide et direct pour la consultation.

Drawbacks

- It is labour intensive and there is some confusion amongst users about whether to follow information in the print or web version (even though both state that the web version is the official version).

- Not everyone has access to the web but this is changing.

- The only drawback is certain users have trouble adjusting to the transition from print to web.

- The greatest drawback is the resistance from faculty and staff to use the electronic versions of the calendar.

- The need for print version to take to meetings.

- It creates an additional task beyond the hard copy publication, and it raises questions about whether or not to implement changes immediately vice delaying until the next publication date, as there are pros and cons to both approach. With only a hard copy version this was less of an issue.

- Change of culture issues.

- Access when system down.

- Learning curve.

- Full-time effort. Pressure from academic units to update the web calendar when it is supposed to match the current version (only supposed to be updated once per year)

- Keeping it accurate and the links valid.

- Crée des attentes et à la merci de la technologie.

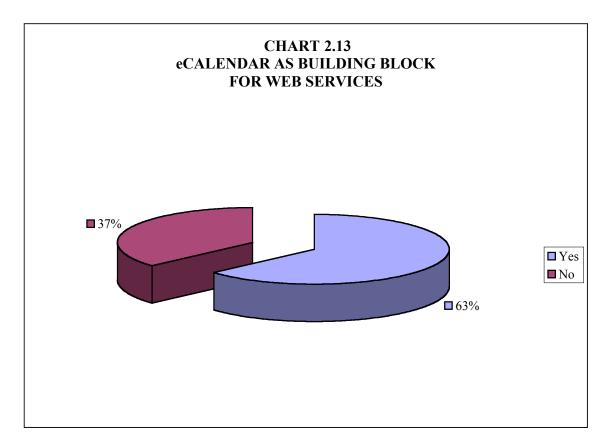
- Difficulté de discipliner le personnel: création et modification de programmes en tout temps en raison de la disponiblité du WEB; mais il faut tenir compte que l'annuaire a aussi une valeur réglementaire et que par conséquent, il faut que l'information déjà publiée conserve sa pleine valeur pendant une certaine période de temps.

- Plus lourd pour le personnel qu'ayant à faire les mises à jour.

For almost two thirds of institutions, the web calendar application was or is a building block for the development of other web-based services. For more than a third of institutions, this is not the case.

	TABLE 2.13
Is the electronic solution a buildin	g block for other types of interactive services?

YES	NO
26	15
63%	37%



The subsequent question sought to spell out a new category of services, delivered through the web, that the web calendars support, complement, enhance or simply allow to be built. Below are the comments received in response to this question.

- Supports enrolment, timetabling, scheduling.

- Degree audit, On line application, Web Registration.

- When we move to web based application and registration, we will build links to the individual programs, so that applicants will be able to view up-to-date information and hopefully be better advised/knowledgeable on the program(s) they wish to take.

- Development of student web portal - students will be able to select which information they would like automatically displayed from calendar. The online timetable can now dynamically link to calendar, and URLs remain the same - no yearly update of web addresses necessary.

- Complements our academic audit; provides a greater amount of information to items commented upon briefly in our Viewbook.

- Content management where information can be updated regularly and by one individual, customized responses to inquiries where information can be emailed as requested and more interactive with links to additional information.

- It is a necessary part of web registration. This application enhances and compliments the Registration Guide. There are direct links from the online Registration Guide to the online Calendar.

- Many people all over campus link to the Calendar. The web-based calendar enhances all professors and departments web pages in that they have direct links to their course listings in the Calendar. We have standardized the URL naming scheme to make this very easy for them.

- E-mail contacts - registering for Student for a Day, Tours, etc.

- Timetable Graduate application form Applying to university Unofficial transcriptsConnects with Faculty and Department/Centre web sites as well as our Student Registration System.

- Individualized information.

- Everything from information to application to registration to mark statements to graduation to convocation to alumni relations to job placement. Everything we do.

- not built yet, but could complement on-line viewbooks, degree audit systems etc. The eCalendar draws prospective students in to find out more about our institution and to visit other parts of the site. Our graduate site is for prospective students, current students, postdoctoral fellows, graduate administrators, and supporters/alumni. SGS is in the process of developing an on-line application for prospective students. Current students can register for English language enhancement courses.

- A "What's New" section keeps the graduate community informed. The site has a search feature if users cannot readily find what they need. Students enroll in courses at their home department. Although not yet interconnected, have moved to web based services for students, sites for online forms, moving toward communication dependency with students via institutional email.

- We're hoping to build a student portal - we can have info that applies to that student only.

- It allowed to build a comprehensive programs of study webpage. Our web calendar pulls course descriptions from our SIS, enhancing and complementing this system.

- At the moment the calendar does not. However as we continue in the development of our self registration system the electronic calendar (most likely in a new format) will be used extensively in various processes. (i.e. linking timetable data to course descriptions and vice versa). 1. admission application 2. housing application/information 3. academic units links and contact information 4. requests for information.

- Our Web student services (such as Web registration) do not currently draw on the course/program info that is in our Web calendar (no common repository for these data)

- A Degree Audit system.

- Web registration.

- Will use it more and more to interact with our Web-based enrolment system.

- Some other services link to course descriptions Course descriptions can be linked to registration process.

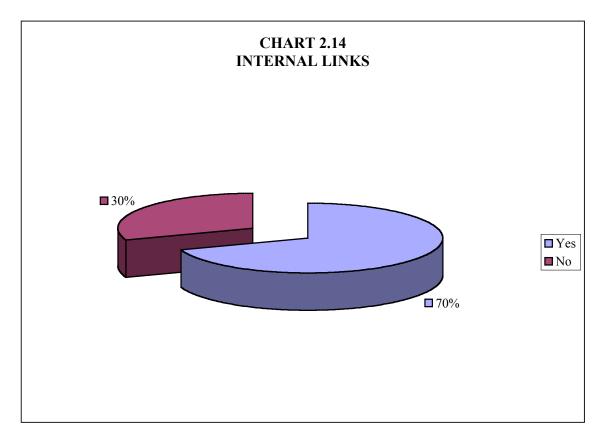
- Links to up-to-date fee information that can be out of date in the print calendar. Ability to link to calendar course descriptions directly.

- Admission en ligne, inscription en ligne, réquisition de fournitures, d'attestations diverses, WebCT, etc.

70% of institutions' web-based calendars include links to other internal web-based services and applications. This proportion falls to 45% for links to external services.

TABLE 2.14		
Are there internal links provided to other web-based services and applications?		
YES NO		

1123	NU
32	14
70%	30%



Examples of services and web-based applications served by the web calendar's internal links are:

- Links are provided to other RRU web pages (programs, services) and external web pages (financial aid, transfer agreement partners).

- Web registration, course outlines, faculty bios, Galleries, URLs are not currently available as we are updating our web.

- Presently, the web calendar links to any departmental websites, as well as FAQs.

- currently students can download an application form, when web applications is enabled it will take them directly to the electronic application Each course description links to the appropriate timetable, departmental, course, and program web sites.

- Not yet.

- Apply Now link Academic Calendar home page Department specific to that program home page.

- Link to the University Secretariat for the most current codes of applicant and student behavior (www.ualberta.ca/~unisecr/appeals.hml)

- Links to Faculty information The timetable is linked to course descriptions in the calendar.

- Links to various web pages on campus. For example there is a link to the University Secretary's Office that refers to policies that affect the student. There are also links to other college's webpages.

- Course descriptions Student AwardsAll Departments on campus (www.upei.ca/biology) Convocation ceremony (w.upei.ca/convocation).

- Courses, programs: www.brocku.ca/webcal/2003/undergrad/BIOL.html www.brocku.ca/webcal/2003/undergrad/KINE.htmlGraduate - awards.

- There are hundreds of them.

- Links to any area with a web site on campus (e.g., departments, support services www.trentu.ca/academicskills can be reached through the calendar.

CALENDARS IN

- Just to the rest of the university website.

- English Language and Writing Support www.sgs.utoronto.ca/english/regguidelines.asp Student exchange office: www.utoronto.ca/student.exchange. Links to departmental Web sites http://www.utias.utoronto.ca/.

- Registrar's Office, student support services, academic departments.

- Policies, phone listing.

- Links to fees and registration info on the main Registrar's web page - links to student services, campus map, senate policies here is the main Queen's calendar website, you can take a look at any calendar from here (Law and Arts & Science are in progress.

- Among others, our calendar links to: the Centre for Flexible Learning: http://athena.uwindsor.ca/flexible the Student Information System (SIS): http://athena.uwindsor.ca/sis.

- The calendar links internally to such things as: course descriptions (http://registrar.mcmaster.ca/CALENDAR/year2003/sec_581.htm) other sections of the calendar (http://registrar.mcmaster.ca/CALENDAR/year2003/sec_567.htm) departments (http://registrar.mcmaster.ca/CALENDAR/year2003/sec_579.htm).

- There is extensive cross-referencing within the print version. Those cross-references are transformed into hyperlinks for the web version. For example, many sections refer back to the "Fees" chapter.

- We will be linking course descriptions to our academic timetable.

- Web registration.

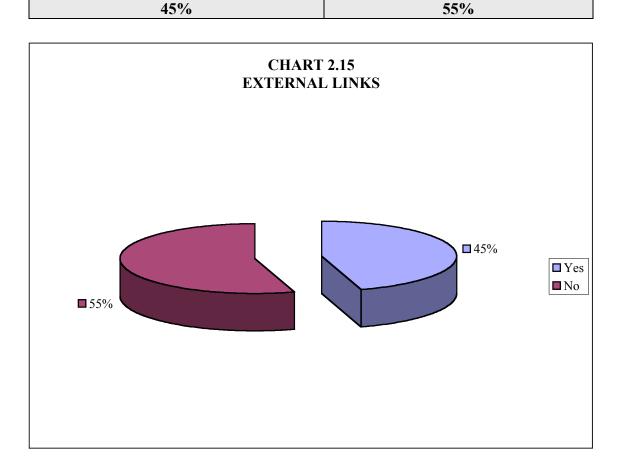
- Search Course Descriptions; Registration and Enrolment; Admissions.

- Departmental homepages.
- Faculty sites; My Concordia portal.
- To ares of the UNB web site but not outside UNB.
- Lien entre l'annuaire et les sites Internet des cours géré par les professeurs.

- Hec en ligne (http://alize.hec.ca/prod/) Associations étudiantes - par programme ex:(http://www.aepchec.com/) Centre d'aide en mathématiques (http://www.hec.ca/cam).

- Des bases données mises sur pied dans différentes facultés s'alimentent à partir de ces liens.

TABLE 2.15		
Are there external links provided to other web-based services and applications?		
YES NO		
19	23	



Below are some examples of the much less extensive external links provided by web calendars:

- Financial aid, transfer agreement partners.
- Post-Secondary Application Service of BC.
- Law School Admission Council (www.lsac.org).
- There are links to departmental web sites.
- Registration Guide.
- www.mcgill.ca/macdonald/campus/ Graduate NSERC, SSHRC, OGS.

- There are scores of them.www.haliburtoncooperative.on.ca - this is a program which provides community based education and research for current students.

- Credential evaluation services as mentioned above.

- OUAC: http://www.ouac.on.ca/

- The calendar has external links such as: OUAC (http://registrar.mcmaster.ca/CALENDAR/year2003/sec_76.htm) TOEFL (http://registrar.mcmaster.ca/CALENDAR/year2003/sec_28.htm)

- Many program descriptions invite students to departmental websites for up-to-date program information. We discourage departments from removing detailed information from the calendar in favour of a URL, both because it is difficult to monitor whether the information posted at external URL's has been properly approved and because a document comprised primarily of a list of URL's is not very useful to the print user. The calendar will be located on our main website. Eventually we may link sections of the calendar to the appropriate page on the website.

- Agréments (www.mba.org.uk)

- Ordres professionnels (www.cma-quebec.org)

- Conférence des recteurs (http://secure.crepuq.qc.ca/4DLINK100/4DCGI/843/0/Accueil.shtml)

- Des questionnaires d'organismes externes.

Question 2.16 sought to ascertain the distribution of responsibilities for the electronic calendars. A great variety of situations exist in this regard, far greater than that concerning the responsibility for the printed calendars (see the analysis of answers to questions 1.15, 1.16 and 1.17). This seems to be a reflection of the relative complexity of web related policy issues, and of the fact that they are still in a state of flux, whereas policies about the publication of printed information, even if informal, are much older and much more stable. Be this as it may, here is where responsibilities for the web-based calendars rested in 2003:

- GRD/RO/DE.

- Marketing - designing and implementing Learner Services and Registrar - maintaining Academic Departments - maintaining department specific pages.

- Student Services and ITD.

- Managed by The Identity Committee (membership includes, the president, VP Academic, Registrar/Director of Student Services, Director of Information Services,

- Manager of IT Services, and several faculty reps. We have contracted the re-design to a private design house in Vancouver.

- The Registrar's office is responsible for all content, the WEB Manager designed the site.

- Registrar and Communications.

- Joint between Computing Services (technical side) and Registrar's Office (content and policy).

- My Assistant Registrar: Systems and the IT Department of the institution.

- Customer Services and Marketing and Communications.

- Office of the Registrar and Student Awards.

- Registrar with help from external consultant and internal IT Services staff.

- Registrar's Office.

- IT, Communications & Research Office within the Student & Enrolment Services Division.

- Translated from print version by New Media Services department.

- Registrar's Office.

- Office of the Registrar (with assistance from ITS).

- Undergraduate Program Services for undergraduate. Graduate Program Services for graduate.

- Corporate Communications.
- Communications.
- Computing and Audio Visual Services.

- Communications Office in conjunction with Information Systems Office, both at SGS.

- Senate Office.

- Public Affairs at the moment, the University Registrar's office is responsible for the ecalendars project.

- Office of the Senate Secretariat.

- Office of the Registrar

- Office of the Registrar and the Department of Computing and Communications.

- Information Technology Department in consultation with the Marketing and Communications Department.

- Enrolment Services (Senate & Curriculum Services and Communications Services).

- Registrar's Office, under the supervision of Senate

- Registrar's Office.

- Registrar's office.

- Registrar's Office.

CALENDARS IN

- Office of the Administrative Registrar & UVic Communications Services.
- Same unit as the rest of the calendar.
- Bureau de la registraire.
- Office of the Registrar.
- University Secretary with technical support from various units.

- Design général: Direction des communications Implantation: les services informatiques Maintien, mise à jour: Registrariat.

- Collaboration entre le Bureau des affaires académiques et le Service informatique.

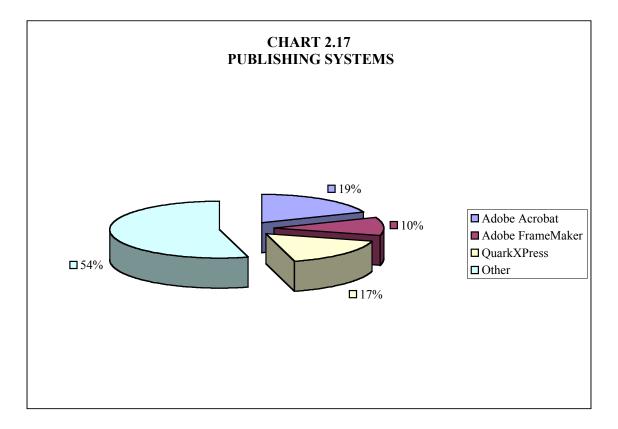
- Direction des communications Bureau du registraire.

- La Section des publications officielles du Bureau du secrétaire général, en collaboration avec la compagnie Logidec/Moore.

The publishing systems used to produce, distribute and maintain calendars are varied, and no system dominates (the category "other systems" represents 54% of institutions). The most often cited publishing systems are Adobe Acrobat and QuarkExpress. Other systems used include Adobe FrameMaker, Adobe InDesign, Adobe PageMaker, Ventura, ColdFusion, QuickSilver, MS FrontPage, MS Word, WordPerfect, LotusNotes, etc.

TABLE 2.17
What publishing systems are used to build and to maintain your institution's
printed and electronic calendars?

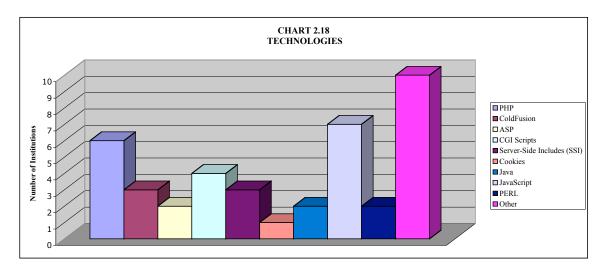
Adobe Acrobat	Adobe FrameMaker	QuarkXPress	Other
9	5	8	26
19%	10%	17%	54%



The same situation prevails as far as technologies used to produce and to maintain the institutions' calendar web pages are concerned, with no particular technology emerging as clear winner, although there seems to be some preference for JavaScript. Other technologies used include Perl, Microsoft. NET, DAG Navigator, LotusNotes.

TABLE 2.18
What technologies does your institution use to produce and maintain its
electronic calendar's web pages?

РНР	ColdFusion	ASP	CGI Scripts	SSI
6	3	2	4	3
Cookies	Java	JavaScript	PERL	Other
1	2	7	2	10



Oracle database and database server seems to have the favor of about a third of institutions. Other database systems include SQLServer, MySQL, ACCESS, FileMaker Pro.

TABLE 2.19
What database and database server does your institution use to store and to
provide its electronic calendar information?

ORACLE	SQLServer	Access	Access,	Other	I do not know/ Not applicable
12	6	4	4	10	5

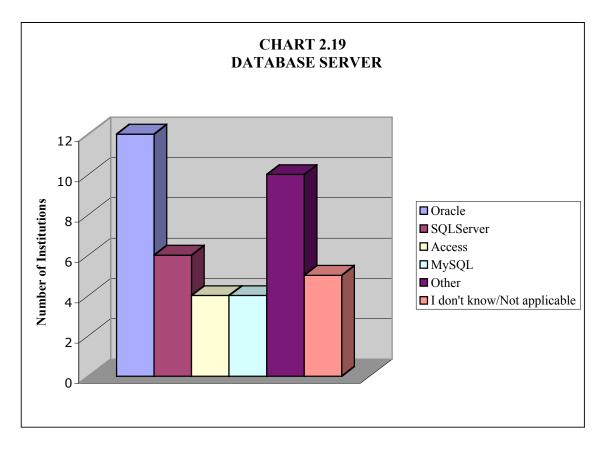
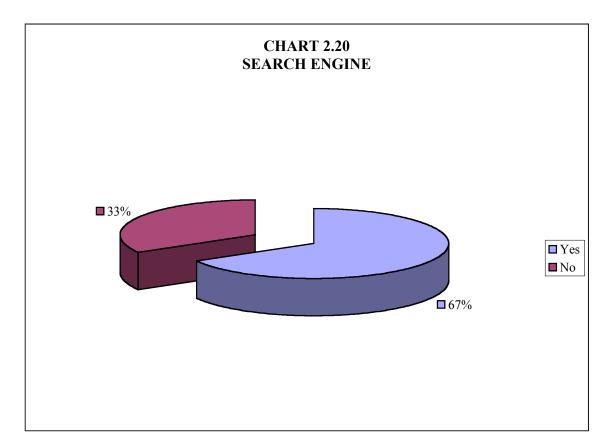


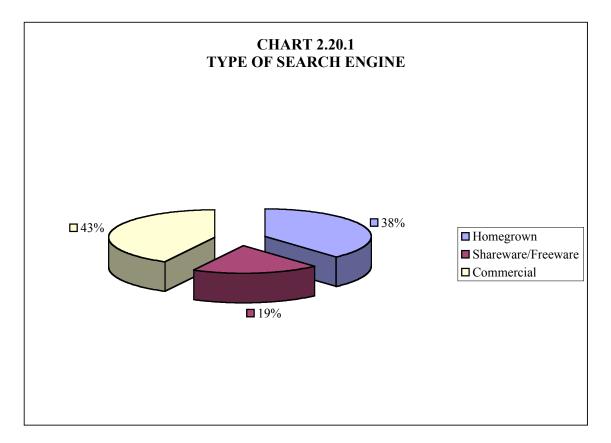
TABLE 2.20		
Does your institution's calendar on the web include a search engine?		
YES NO		
28 14		
67%	33%	



Two thirds of institutions' web-based calendars include search engines, 38% of which are homegrown. Shareware or freeware search engines are implemented in almost a fifth of institutions, while commercial search engine are implemented in 43% of institutions. Interestingly, with one exception where the search engine is part of an application package, all institutions that have acquired commercial search engines have chosen Google.

TABLE 2.20.1What type is the search engine?			
HOMEGROWN SHAREWARE/FREEWARE COMMERCIAL			

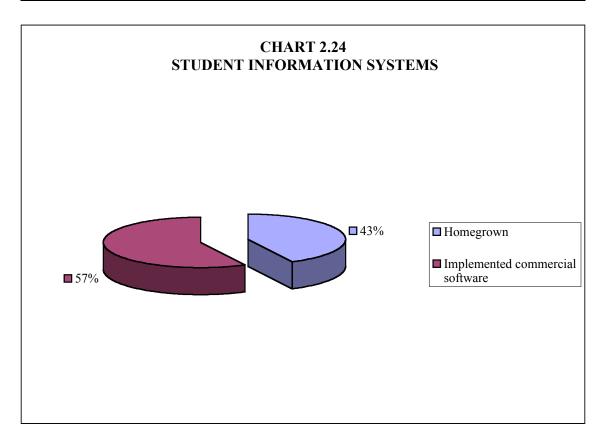
HOMEGROWN	SHAREWARE/FREEWARE	COMMERCIAL
10	5	11
38%	19%	43%



II.3 Institutional Technological Environment

It seemed useful to note the technological environment in which operate the institutions, in order to place the answers to the survey into the right technical context.

TABLE 2.24	
What type is your institution's Student Information System?	
HOMEGROWN SOFTWARE	IMPLEMENTED COMMERCIAL
	SOFTWARE
17	23
43%	57%



It is remarkable that in 2003, in more than half of post-secondary institutions, Student Information Systems have been acquired commercially and implemented rather than developed and maintained locally.

This trend, which started in the early 1990s, appears to have grown steadily albeit slowly, considering the cost, the complexity and the difficulties of the undertaking.

SCT/Banner dominates the Canadian market for commercial Student Information Systems, with 43% of implementations, while Datatel and PeopleSoft share each 22% of the implementations. Among other commercial systems implemented are SCT (formerly Information Associates) SIS Plus, POISE, Edenoa.

TABLE 2.24.1			
If commercial software, please specify which			
Datatel	PeopleSoft	SCT/Banner	Other
5	5	10	3
22%	22%	43%	13%

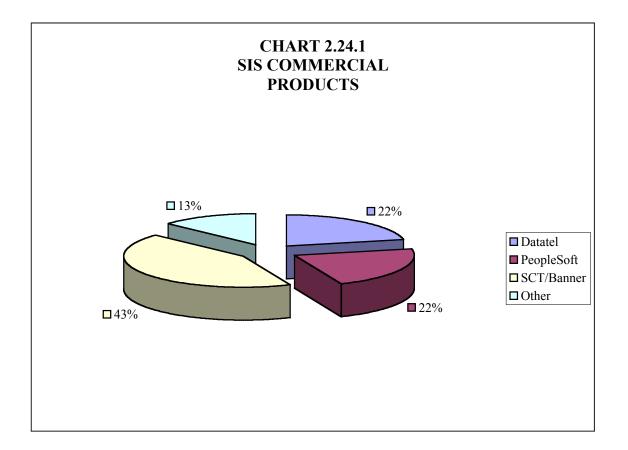
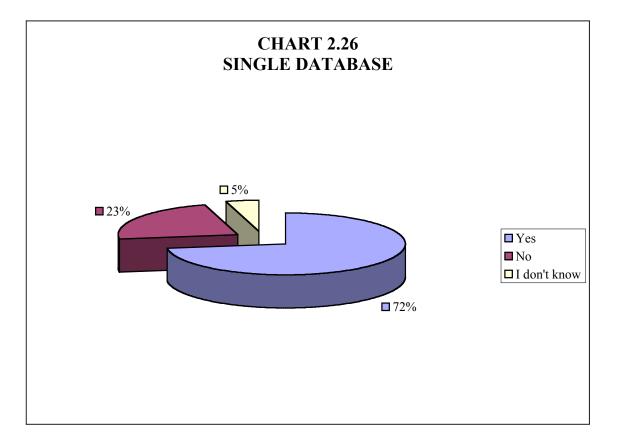


TABLE 2.26Does your institution's Student Information System possess a single integrateddatabase, out of which all information and transactional services for studentsare provided ?

YES	NO	I DO NOT KNOW
32	10	2
72%	23%	5%

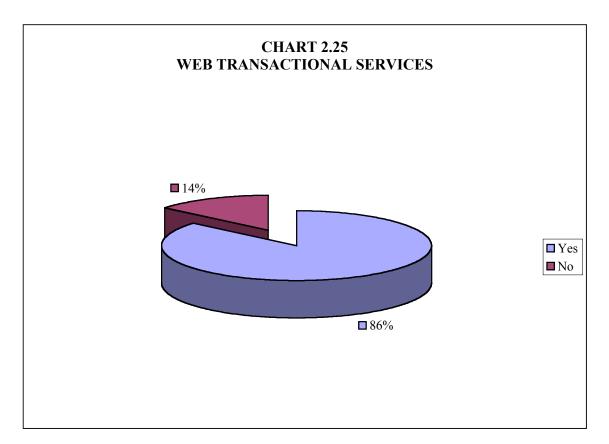


It is interesting to note that, while 72% of institutions possess a single integrated database, only 33% have affirmed to use database publishing (see Table and Chart 1.19). This would seem to indicate that not all institutions are using to the fullest the potential of their student information systems integrated databases, in order to publish their calendars.

A majority of institutions (86%) provide, in addition to web-based calendar information, transactional web-based services for various audiences.

	TABLE 2.25
Does y	our institution provide transactional web-based registrarial, financial and
	financial aid services for candidates, students, faculty and staff?

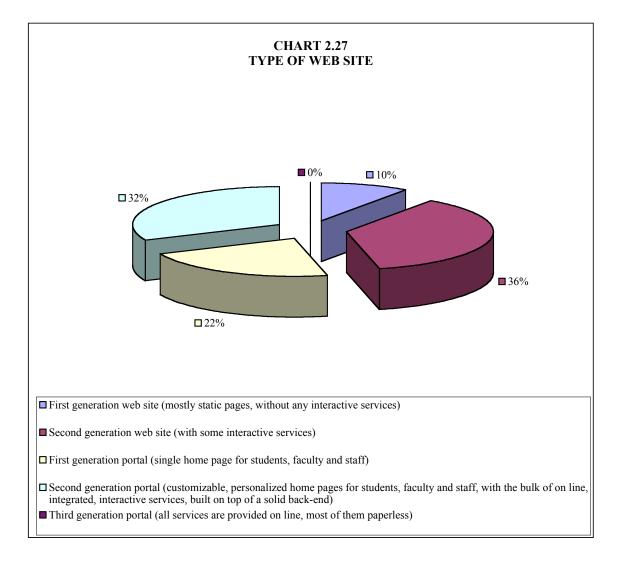
YES	NO
37	6
86%	14%



The development of web-based services among Canadian post-secondary institutions seems to be evenly distributed, with a third of institutions characterizing their web-based services as second generation portal, with 22% of institutions seeing them as first generation portal, with a little more than a third seeing them as second generation web and with 10% thinking about their web-based services as being first generation web. No Canadian institution sees itself at the top, that is as providing a third generation portal.

TABLE 2.27
What type of web-based services does your institution provide for students,
faculty and staff?

1 ST	2 ND GEN.	1 ST	2 ND	3D
GEN .WEB	WEB	GEN.	GEN.	GEN.
		PORTAL	PORTAL	PORTAL
4	15	9	13	0
10%	36%	22%	32%	0



CALENDARS IN

II.4. Issues and Lessons

Table 2.22 summarizes, by category, the answers to the question regarding the issues facing Canadian universities and colleges in their web calendar publishing related activities, while table 2.23 summarizes the lessons drawn by the respondent institutions in each category of issues.

Content and archiving issues are noted by most respondent institutions, followed by technological and technical issues. Access and distribution issues, quality of service issues and legal issues are faced by about an equal number of institutions. Cost issues are mentioned by a few institutions.

TABLE 2.22				
What were or what are the main issues associated with the design and the				
implementation	implementation of your institution's electronic solution?			
ONTENT UPDATING &ACCESS ANDUALITY OF SERVICE				
ARCHIVING ISSUES	DISTRIBUTION ISSUES	ISSUES		
29	10	9		
LEGAL ISSUES	TECHNOLOGICAL &	COST ISSUES		
	TECHNICAL ISSUES			
10	16	7		
OTHER ISSUES				
2				

Below are the institutions' comments regarding the issues they are facing in their calendar publishing related activities:

Content updating and archiving issues

- There is a regular debate over effective dating and when data should be displayed to users.

- Need for clarity with policies associated with effective dating for course begin terms and Plan activation.

- With multiple "editors" information is not always entered in a consistent format.

- Although no problems have arisen yet, there is an awareness that the frequent changes may result in putting existing learners in "breach" of regulations or program requirements. The unofficial solution is to allow the learners to follow whichever path works best for them in these cases.

- While we are archiving the data. we have not developed a way for the general public to access archived information.

- Need to make sure that all old calendars available, also need to make sure all changes are tracked, and old versions saved for disaster recovery.

- Trying to ensure that it is as user-friendly as possible.

- Persuading all the people at the institution that the Calendar is not doing to be updates on the web throughout the year for legal reasons. We only have one calendar per year not something on the web which is not this year's nor next year's but something in between!

- Issue exists in pdf format which can be time consuming to update. Departments also provide program information on individual pages which may not be updated as often as the online calendar causing inconsistencies in information.

- Navigation to the calendar is sometimes difficult to find on the web. It's also educating staff to encourage students to use the online version (send emails rather than mailing a print copy).

- Need to ensure we archive the most updated online version.

- There have been archiving issues for the html version of the calendar.

- Daily updating was time consuming. However, with the current software, non-technical staff will now be able to do the updating quickly.

- Is it confusing to the student to have archived versions available publicly?

- We have no archiving in place at the moment.

- Had to make it work with PageMaker - what we were using to produce the printed copy.

- Ensuring all university links to the calendar link to the most recent version.

- Determining level of details for broadcasting updates manage changes for current vs. next academic year implementations.

-The calendar committee at Queen's developed processes for updating and archiving the on-line calendars.

- Determining what should and should not be updated and the frequency of the updates. Given that students may follow the calendar of the year they entered, problems and confusions may arise if the web and print calendars are too different.

- Published yearly but updated for the next year daily - very time consuming.

- Creating output to HTML from SIS database (or other database/repository).

- We've decided to maintain a quarterly web calendar release because of the difficulty of archiving material that has been updated on a real-time basis.

- Keeping the information accurate and current and preserving the links.

- Suivi des nouveaux programmes.

- Dédoublement du travail et pression pour la mise à jour régulière.

- Waiting for the printed version to be finalized: Wordperfect (DOS) conversion to HTML.

- The whole area of integrating the approval process with the technical process of updating.

- L'archivage n'est pas encore implanté.

Access and distribution issues

- Decentralized input leads to coordination problems for the desktop input.

- The content management system creates user-unfriendly URLs. This makes access difficult.

- Making certain that the University's homepage enables direct and easy access to the Academic Calendar.

- There are issues for some students (mainly international).

- *Trying to create a template that all departments could adhere to.*

- Browser updates require adjustments to the web site.

- Students find the electronic version accessible, but we need to provide a user-friendly version of the document.

- Balance of lowest common denominator for access vs smart looking site.

- Users must have web access.

Quality of service issues

- Shared responsibility also means that people are updating the calendar "off the corner of their desks". Depending on other demands, changes may not be made in a timely manner. The system is not especially easy to use, particularly if you want to do something a little bit different than the CMS templates allow (like insert a table, for instance).

- Need to make sure that calendar is user friendly to the degree that it is more efficient and easier to use than paper version.

- Resources are an issue where several projects are priorities for the webmaster and updating the calendar is not always timely. If a student is on dial-up, downloading a 5MB file can also be timely.

- Faculty advisors prefer using the printed calendar when they are working with students.

- Accessibility guidelines, the Calendar needs to be accessible to everybody.

Ensuring the web calendar is up to date and changes are made in a timely fashion.
Usually it takes longer to get the electronic version up on the web after than it has been published than desirable, due to the limited personal resources available to do the work.

- Access vs. user friendliness.

- How often to update, how often to seek revisions from departments, to whom to continue sending printed calendars we consider a web calendar to be far superior in this aspect, whether to consider the current web version legally binding.

Technological and technical issues

-There have been some minor problems with modifying the Calendar software with Cold Fusion, and there are some limits to the amount of text in some areas... however, this has been resolved to the satisfaction of all.

- We are only beginning the process and will have other issues to deal with when we move to a more interactive calendar instead of a PDF file on the web.

- Need to make sure that the load time is fast so it is accessible by wide variety of connections. Achieved by automatic publication of static html by database instead of calls to database on every page load.

- PERL reads printed calendar and marks necessary information to website and MYSQL server. Formatting, codes in printed calendar created problems that needed extra effort handling in program.

- Working on development of new standards for submission to address current difficulties.

- Use single database to create both hard copy and web.

- Finding optimal technology and processes to do the work once to filter into electronic and print.

Netscape composer and word perfect do not work well together - need to investigate a better, more efficient way to produce both print and web versions of the Calendar.
Too much time to create the course/program database.

- Because ours is currently an older system, we have some issues with links, although this is being addressed by updating to the new system.

- We are producing the electronic calendar in the same format as we did seven years ago. At that time we were most interested in having a one source document which would allow us to create both a web and printed version of the calendar. Technology and customer demand has changed and we now need a calendar which is much more dynamic and interactive.

- Logiciel peu convivial pour le personnel régulier de l'institution.

- Challenging to integrate the various sources of information that are distributed to faculties for review and information that is in the review/approval process. Ability to link to key databases held in our information systems - faculty listings and course master timetable information.

- La production de documents PDF est trop onéreuse (en temps) pour permettre la production de documents dans ce format plutôt qu'en HTML.

Legal issues

- Need to make sure a solid system in place to review all updates and ensure accuracy of information.

- Need to ensure we archive the most updated online version.

- As long as we don't have version discrepancies there is not a legal issue. -Concerns with changing content.

- The web calendar is considered to be the official university calendar. Have not sufficiently addressed potential legal issues related to this - have not been challenged on this as yet but recognize the need to do this.

- These issues were also discussed by the committee, if there is no printed calendar, then the on-line version is the official version; otherwise, the print version is the 'official' version (at the moment).

- Web calendar must be identical to the print calendar.

- Conflict between e-calendar and printed can be perceived in terms of contract and legal issues/decisions.

- The e-calendar has legal status BUT we would continue to consider the paper calendar as the definitive source of information. This is an area that requires further discussion given that it is an evolving area in the legal community.

- Les facultés copiaient les informations du site officiel dans leur propre site sans assurer la mise à jour subséquente.

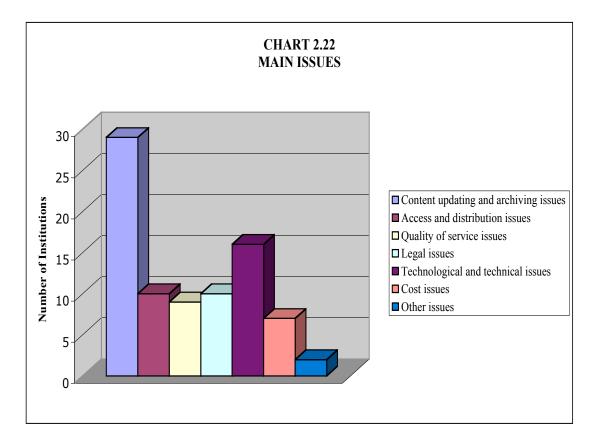
Cost issues

- Printed copy too expensive.

- The software charge per year is currently 0.00, but this will change when we implement the new DAG software.

Other issues

- Should we go to virtually a web-only calendar (hard copy not distributed to students and faculty) we believe there will be a significant push back by these groups.



As for the lessons that Canadian colleges and institutions are drawing from facing and, most of the time, solving the problems noted above, regarding the management of their web calendar publication, the comments in response to question 2.23 are also revealing.

Content updating and archiving lessons

- We have made the pdf version of the print calendar our archival version as it contains the complete course listing. On the web, the course listing is offered through an interactive student service.

- Departments have a tendency to want to change the electronic version. Major changes wait for the next printed version.

- Ensure complete migration key edits complete.

- We use word perfect for the print version and copy and paste it into the web version. This does not work well and the web version must be manually adjusted to look like the print version.

- We need an end-to-end polypublishing solution with a single source database/repository.

- There are costs and benefits to a data-driven, single-source approach to content management. Neither the web nor the print version imbues the best of their respective media, but instead we've settled for the best happy medium.

- Labor intense.

- *How to produce a quality printed version plus an online fully hyperlinked version.*

- S'assurer d'avoir une solution supporter par le service des technologies de l'information de l'institution.

- Required dedicated human resources with the technical background to manage and the understanding of the "calendar" process and how new programs/revisions etc are vetted.

- Beaucoup de travail et trop peu de moyens: aucune ressource du Bureau des affaires académiques (surplus de travail).

Access and distribution lessons

- Start simple but start somewhere.

- Improved navigation and staff training.

- Access to the html version of the course descriptions (and associated registration process) was not intuitive. The new version of PeopleSoft should solve some of these issues.

- Keep simple avoid too many bells & whistles.

- Notify units when the Calendar is expected to be on-campus and request that they place their order immediately.

- People/public still wants to receive the paper version, which is in conflict with the objectives of cost cutting and the principle of access (we assume that Web versions are perceived as being more accessible and that we reach our audiences more effectively this way. Our market doesn't always agree).

Quality of service lessons

- *HTML formatting so webmaster does not need to update content: Customer Services can update it.*

- The findings of the Calendar Review Committee highlighted that the print calendar is an important tool for both students, faculty members and staff. Work will continue on improving the interface to web versions so that all these users will find using the web easier.

- Refer to web version as much as possible to evolve culture to web.
- Have reported broken links fixed immediately.
- Respond in a timely fashion to inquiries.
- All links must work properly; no service interruptions.

- As we improve the quality of service provided via the e-calendar, the greater the expectation for further improvements.

Technological and technical lessons

- The html version of the web calendar needs to be highly functional and easy to use if it is to be accepted and used more by key audiences.

- Make as user friendly as possible within budget constraints remember, can't please everyone.

- The importance of structuring and organizing the web version of the calendar in a userfriendly way.

- Investigate better ways to produce the print and web versions of the calendar.

- We expect to constantly be migrating from one system to another, approximately every three to five years. Decisions about investing in the development of particular platform or system should be made with this in mind.

Legal lessons

- Make sure the print and web versions match.

- Institutions must always be able to produce calendar content as it appeared on a certain date. Lawsuits or legal challenges extend years beyond a student having attended classes, making archiving of information particularly important.

- Toujours pointer vers le site oficiel plutôt que de le reproduire localement sans assurer la mise à jour.

Cost lessons

- Maintenence cost will be negligible if process utilizes existing infrastructure.

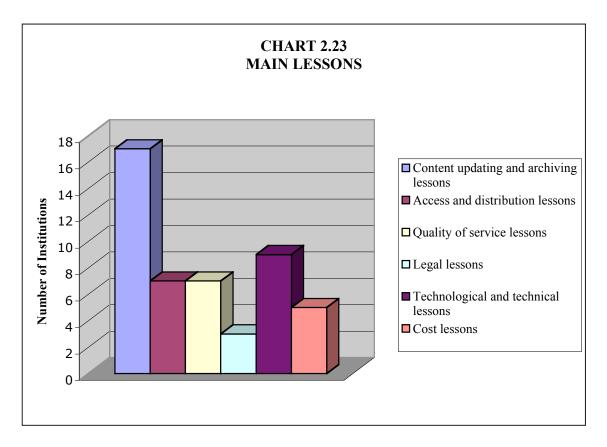
- Resources are required to update the web and ensure it is a valuable tool for all audiences.

- It is cheaper to have just an electronic version of the Calendar - it is most costly to produce a print version.

- We originally thought the number of printed calendars would drop substantially but we still print about 30,000 every year.

TABLE 2.23What are the main lessons learned by your institution concerning the
publication of an electronic calendar?

CONTENT UPDATING & ARCHIVING LESSONS	ACCESS AND DISTRIBUTION LESSONS	QUALITY OF SERVICE LESSONS
17	7	7
LEGAL LESSONS	TECHNOLOGICAL & TECHNICAL LESSONS	COST LESSONS
3	9	5



CHAPTER III TRENDS AND GUIDELINES

The previous chapter presented the findings in all areas of inquiry covered by the survey. It remains to highlight the trends and directions revealed by the findings and to formulate a few guidelines for sound calendar publishing, based on the survey's findings.

III.1 Trends

The many facts uncovered by analyzing the survey data can be grouped in two main categories, from the point of view of their relative importance. Although interesting, some facts revealed by the study, such as calendar content, audiences for calendars, differences between undergraduate and graduate calendars, frequency of publication or of updates, responsibilities for publication, issues of distribution and costs, applicability to summer sessions, etc. are narrow in their scope and influence.

Others have special significance because of their scope, or because of their universal character. Such are the number of institutions publishing calendars in print and on the web, the move from print to the Internet, the official character and the legal value of calendars, institutional policies governing calendars in print and on the web, perceptions about successful calendars on the web. Because of their universal character and of significance they can be considered trends. Below are some of the trends highlighted by the study.

- It is striking to note that, while 89% of institutions publish calendars in print, 93%, of institutions publish their calendars electronically, mainly on the web (98%). Web-based calendars are implemented in the vast majority of institutions, in even a greater proportion that printed calendars.

- The most important trend documented and quantified by this study is the steady move of calendar services to the web, which took place in the last ten years. 58% of institutions consider that the rise of the Internet as a mainstream communication medium has influenced the use they make of their printed calendar.

Given the very high number of institutions which offer their calendars on the web, the move of the program and course calendars to the Internet can be considered complete. Current and future developments aim at improving the mainly information services offered by calendar applications and build interactive services around them.

CALENDARS IN CANADIAN COLLEGES AND UNIVERSITIES Chapter III - Trends and Guidelines

- While the number of institutions which consider their printed calendars as legally binding (79%) is higher than that which consider their web-based calendars as legally binding (60%), roughly the same proportion of institutions (15%-14%) do not consider that either printed or web-based calendar has legal value. 61% of institutions consider their web-based calendar to be their official calendar while 39% of institutions do not share this view.

- In 88% of institutions, both the printed and the web-based calendar have identical content and the same policies govern their publication. In 12% of institutions, the content of the printed and of the web-based calendar, as well as the policies that govern their publication are different.

- Paradoxically, formal, written, policies governing either calendar in print or web-based calendar content and management seem to be lacking in Canadian post-secondary institutions. Only six institutions out of 46 respondents have provided addresses on the web where policies governing their calendars should be located. The majority of these addresses are no longer valid or are inaccessible. Three of them simply contain disclaimers regarding the university's rights and lack of legal responsibility in case of damage resulting from the provisions of the calendar. The remainders are pointers to general academic rules, regulations and policies. Could it be that no such formal policies exist in Canadian post-secondary institutions?

- Institutions are using a variety of tools and systems (database servers and databases, publishing systems, search engines, various Internet technologies), to help accomplish the many tasks involved in calendar publishing, both in print and on the web: updating and maintaining of information, editing, displaying of information statically and interactively, archiving and retrieval. With the exception of Google among those who are using commercial search engines for their web-based calendars, no tool or system dominates the market for calendar production and maintenance.

- 93% of institutions, which publish web-based calendars, consider them to be successful. For the few who do not consider their web-based calendar successful, it is because it is not up to date, because it is not interactive, or because the information is not treated according to the requirements inherent to the particular medium that is the web.

CALENDARS IN CANADIAN COLLEGES AND UNIVERSITIES Chapter III - Trends and Guidelines

III.2 Guidelines

- Adopt formal, written, policy and guidelines regarding the publishing of print and webbased calendars, and make them available to internal and external audiences.

- Provide program and course calendars both in print, albeit in limited number of copies for which there is a charge, and on the web.

- Consider calendar information as contractually binding, preserve its accuracy and keep it up to date.

- In as much as possible, use a single integrated database to store and to serve all calendar information, be it in print or on the web.

- In as much as possible, use a single system or application to drive the production of both printed and web-based calendars.

- For the web-based calendar, keep the interface and the navigation simple and user-friendly.

- For the web-based calendar, use the course as a core discreet unit around which any number of interactive services can be built.

For an example, among others, which embodies and illustrates many of the above guidelines, see the University of British Columbia's calendar on the web, at <u>http://students.ubc.ca/calendar</u>.

APPENDICES

- Appendix A Project Charter
- Appendix B Calendars Survey
- Appendix C Which Institutions Answered the Survey?
- Appendix D Comments in Response to Open Questions
- Appendix E Calendars on the Web Addresses
- Appendix F Calendar Policies on the Web Addresses

APPENDIX A PROJECT CHARTER

Association of Registrars of the Universities and Colleges of Canada Draft Project Charter February, 2003

Name of Project: Task Force on Electronic Calendars

Sponsor: ARUCC Executive Contacts: Kathleen Massey, Lea Pennock

Customers/Stakeholders:

Member institutions of ARUCC, and ARUCC professionals with responsibility for production and distribution of Calendar material.

Objectives:

To investigate and report best practices around production of electronic calendars at Canadian post-secondary institutions.

Time Lines:

Phase 1: June 2002 – June 15, 2003 Phase 2: July 1, 2003 – October 15, 2003

Scope Statement:

The investigation is limited to North American practices, with a focus on Canadian institutions. The final report produced will give guidelines and suggestions but will not dictate policy or constitute a position statement by ARUCC or its member institutions.

Approach:

A Consultant will be contracted to conduct a two-phase review. The Consultant will assemble a small advisory committee with broad representation from universities and colleges across Canada. In the first phase, information will be gathered through discussion at ARUCC 2002, and a systematic study of the current state of calendar production (electronic and printed) in North America, with particular emphasis on the Canadian context, will be undertaken. Issues examined may include historical and current uses of printed handbooks and calendars in North American universities and colleges, their audience and content, definitions, problems associated with their maintenance and distribution, and where responsibility/authority lies for maintaining and producing them. Issues will then be identified relating to the move to electronic calendar production and distribution. Such issues might include legal issues, technical and technological issues (e.g. software), content, archiving, issues of timing, distribution, access, and cost, as well as a consideration of what an official institutional policy on electronic calendars might look like.

In the second phase, the Consultant will identify successful responses to these issues by universities and colleges in Canada, and will develop guidelines and recommendations with respect to best practices.

Activities:

Phase 1:

The Consultant will attend ARUCC 2002 in Edmonton and moderate an informationgathering panel/session on Electronic Calendars, and will then conduct a systematic study using resources such as the Advisory committee, telephone, e-mail, web sites and printed materials. The Consultant will administer a research questionnaire to members in order to identify some institutions that have developed innovative and solid practices and effective policies around electronic calendars and the issues and problems that these solutions have addressed, and will follow up by e-mail and/or telephone conversations.

Phase 2:

With input from the Advisory Committee, the Consultant will draft a report in both official languages, for receipt by the Executive.

Reviews, Approvals and Reports required:

Phase 1:

- Selection of a panel for the presentation at ARUCC 2002, with input from the Executive
- Selection of an advisory group representative of regions and institutional diversity, with input from the Executive
- Preparation and administration of survey, with review of Advisory Committee and of representatives on Executive.
- Submisssion & approval of budget, including travel expenses.
- Report to Executive on findings of Phase 1.

Phase 2:

- Submission of a budget in advance of the phase commencing.
- Submission of any additional expenses for approval in advance.
- Draft Report, Translation and Final Report.

Final Deliverables:

Phase 1: A short report to the Executive on the 'current state' as a foundation for Phase 2.

Phase 2: A published report on best practices in electronic calendars, to be made available in electronic format and in both official languages to ARUCC members. It is suggested that this report include a draft sample document for an official institutional policy on electronic calendars.

Time Lines:	
June, 2002:	Moderate panel at ARUCC 2002 (Edmonton)
June 15, 2003:	Phase 1 Report due.
Oct 15, 2003:	Phase 2 Report (draft) due
Nov 15, 2003:	Release by Executive of final report
June, 2004	Presentation at ARUCC 2004 by Executive

Revised March 4, 2003

APPENDIX B PROJECT SURVEY

Association of Registrars of the Universities and Colleges of Canada Electronic Calendars Survey v7.1

The outcome of ARUCC's study on current practices regarding the publication of institutional calendars, in print or in electronic form, is entirely dependent on the ARUCC members' experience in this area and on their willingness to share their experiences, for the benefit of their colleagues.

The ARUCC study relies on member institutions' feedback to this survey. Only one person per institution should answer the survey. The survey takes about 45 to 60 minutes to answer on line. You may overview the questions before answering the survey, either in the form below or by downloading its .pdf version <u>here</u>.

If you're not familiar with all aspects covered by this comprehensive survey, you may also wish to gather technical data and information with which you're less familiar, from your colleagues and from other sources, prior to answering the survey on line.

Please note that hitting the *Enter* button at any time while filling in the survey is equivalent to hitting the *Submit* button and will result in submitting a partially filled in survey. Please refrain from hitting *Enter* before you are satisfied that you have completed the survey.

Please take the time to answer this survey, thus helping to draw a true picture of the current state of the calendar of programs and courses production in Canadian postsecondary institutions. On behalf of Arc's Executive Committee, thank you for answering this survey.

I. Printed Calendars of Programs and Courses

1.01. Does your institution publish a printed calendar of programs and courses?

Yes No

1.02. Do individual faculties publish their own calendar, in addition to the University-wide calendars?

Yes No Some faculties Not applicable

1.03. How many different printed calendars does your institution publish? (Numbers only, please)

1.04. Do your institution's printed calendars of programs and courses have legal value from the point of view of students' rights and obligations?

Yes No I do not know

1.05. Does your institution's printed calendar of programs and courses contain sections on (please check all that apply):

- Institution's history
 Mission statement
 Listing of faculty
 Listing of staff
 Listing of members of governing bodies
 Academic rules and regulations
 Academic calendar
 Awards information
 Other financial information
 List of degree programs
 List of individual courses
 Other sections (place specify);
- Other sections (please specify):

1.06. What are the main audiences for your institution's printed calendar of programs and courses (please check all that apply)?

Prospective students High School Guidance Counselors

Current students

Other (please specify):

1.07. What are the purposes of your institution's printed calendars of programs and courses? (please check all that apply)

Represent the institution and its offerings (branding)

Information tool for the public

Information tool for current students

Proclaim the students' rights and obligations

Recruit new students

Other purposes (please specify):

1.08. Has there been a shift, in your institution, in the emphasis put historically on printed calendars of programs and courses, as a result of the expansion of the Internet and of the web-based services?

Yes No

If yes, please explain in what way:

1.09. If your institution offers graduate degree programs, does your institution's printed calendar combine graduate as well as undergraduate studies information in the same calendar?

Yes No Not applicable

1.10. If your institution publishes separate printed undergraduate and graduate calendars, or if it publishes separate calendars for distinct undergraduate faculties, please explain the differences in their content and in the policies that govern their publication:

1.11. What is the frequency of publication of your institution's printed calendar(s)?

Annually
 Every two years
 Other frequency (please specify):

1.12. How many pages does each printed calendar that your institution publishes contain on average?

1.13. How many copies do you print per run on average?

1.14. What is the average cost per copy?

1.15. What department(s) is (are) responsible for maintaining the list of valid programs and courses?

1.16. What department is responsible for designing your institution's printed calendar?

1.17. What department is responsible for producing your institution's printed calendar?

1.18. Is your institution's calendar being printed
On campus Off campus
If on campus, what department is responsible for printing your institution's calendar?
1.19. Is the production of your institution's printed calendar(s) of programs and courses automated, that is data driven publishing rather than conventional desktop publishing?
Yes No
If yes, does the same system allow publishing both the printed and the web based calendars:
Yes No
1.20. What department is responsible for distributing your institution's printed calendar?
1.21. Is your institution's printed calendar being distributed automatically to (please check all that apply):
 Prospective students Current students Individual faculty members Academic departments Non-academic departments High schools Postsecondary institutions
Other internal or external categories (please specify):

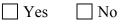
1.22. Does your institution charge for printed calendars for each of the following categories (please indicate the amount where it is applicable)?

Prospective students
Current students
Individual faculty members
Academic departments
Non-academic departments
High schools
Postsecondary institutions
Other internal or external categories (please specify)

1.23. Does your institution's printed calendar also apply to summer sessions?

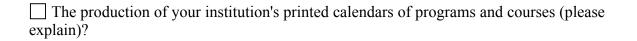
Yes No

1.24. If no, does your institution publish a separate printed calendar for the summer sessions, rather than just a schedule of the summer courses offered?



1.25. In your view, are there problems associated with:

The maintenance of your institution's printed calendars of programs and courses information (please explain)?



The distribution of your institution's printed calendars of programs and courses (please explain)?

Other problems regarding your institution's printed calendars of programs and courses (please explain)?

II. Electronic Calendars of Programs and Courses

2.01 Has your institution implemented an electronic calendar of programs and courses?

Yes No

In either case, please explain why:

If no, does your institution intend to implement an electronic calendar in?

2003 2004 2005 After 2005 Never

If never, please explain why:



2.02. What type of electronic solution has your institution implemented?

CD-ROM based eCalendar

Web-based eCalendar

Both Web-based and CD-ROM-based eCalendar

Other type (please specify):

2.03. If your institution publishes a web-based calendar, does its content and the policies that govern its publication parallel those of your institution's printed calendar?

No

If no, please explain the specifics of the web-based calendar, compared to the printed calendar(s):

2.04. Is your institution's electronic calendar of programs and courses simply an electronic version of its printed calendars of programs and courses?

lo

2.05. Is your institution's electronic calendar of programs and courses a dynamic, even interactive, Internet application, based on web standards and protocols?

No Yes I do not know

If yes, please explain in what way:

2.06. What is the legal status of the electronic solution vis-à-vis the students' rights and obligations?

It has legal value
It does not have legal value
I do not know

If it has legal value, does your institution consider its web-based calendar as the institution's official calendar?

Yes No Not yet I do not know

2.07. How often is the web based calendar information updated?

	Yearly
,	Twice a year
]	Every three months
]	Monthly
	Weekly
]	Daily
	Other frequency (please specify):



If your institution's web based calendar is updated more than once a year, how are the changes communicated within the publication?

2.08. Does the electronic updated information supersede legally the obsolete information contained in the printed calendar?

Yes		No
I do not	kno	OW

2.09. When was your institution's electronic calendar implemented?



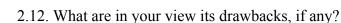
2.10. Do you consider it to be successful?



In either case, please explain why:



2.11. What are in your view the benefits of the electronic solution?



2.13. Is the electronic solution a building block for other types of interactive services?

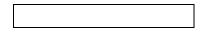
Yes No

If yes, please list the services this application enhances or complements or allows to be built?

2.14. Are there internal links provided to other web based services and applications?

Yes	🗌 No
-----	------

If yes, please specify to what services and applications does your institution's calendar or part of calendar (for instances, individual courses or programs) link and please provide URLs as examples:



2.15. Are there external links provided to other web-based services and applications?

Yes	No
-----	----

If yes, please specify to what external services and applications does your institution's calendar link and please provide URLs as examples:

2.16. What department is responsible for designing, implementing and maintaining the electronic solution?

2.17. What publishing systems are used to build and to maintain your institution's printed and electronic calendars?

Adobe Acrobat Adobe FrameMaker QuarkXPress Other (please specify): I do not know

2.18. For interactive or dynamically created web based calendars, what technologies does your institution use to produce and maintain its electronic calendar's web pages? (Please check all that apply)

PHP
ColdFusion
JSP
ASP
Frontier
CGI scripts
Server-Side Includes (SSI)
Cookies
Java
JavaScript
ActiveX
Other (please specify):

I do not know

2.19. If applicable, what database does your institution use to store its electronic calendar information?

Oracle
Sybase
SQLServer
WebObjects
Access
Other (please specify):

I do not know

2.20. Does your institution's calendar on the web include a search engine?

Yes	No
-----	----

If yes, what type is the search engine?

Homegrown
Freeware or shareware
Commercial

If commercial, does your institution use:

Google
Alta Vista
Excite
Verity
Other (please specify):

2.21. What is the yearly average cost of your institution's electronic calendar in?

Personnel cost:

Hardware cost:

Software cost:

Total cost:

2.22. What were or what are the main issues associated with the design and the implementation of your institution's electronic solution

Content updating and archiving issues (please explain):

Access and distribution issues (please explain):

Quality of service issues (please explain):

Legal issues (please explain):

Technological and technical issues (please explain):

Cost issues Other issues (please explain):

2.23. What are the main lessons learned by your institution concerning the publication of an electronic calendar?

Content updating and archiving lessons (please explain):

Access and distribution lessons (please explain):

Quality of service lessons (please explain):

Legal lessons (please explain):

Technological and technical lessons (please explain):

Cost lessons (please explain):

Other lessons (please explain):

2.24. Is your institution's Student Information System?

Homegrown Implemented commercial software

If commercial software, please specify which

Datatel
Oracle
PeopleSoft
SCT/ Banner
Other (please specify):

2.25. Does your institution provide transactional web-based registrarial, financial and financial aid services for candidates, students, faculty and staff?

Yes No

2.26. Does your institution's Student Information System possess a single integrated database, out of which all information and transactional services for students are provided?

Yes No I do not know

2.27. What type of web-based services does your institution provide for students, faculty and staff?

First generation web site (mostly static pages, without any interactive services) Second-generation web site (with some interactive services)

First generation portal (single home page for students, faculty and staff)

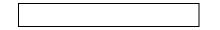
Second-generation portal (customizable, personalized home pages for students, faculty and staff, with the bulk of on line, integrated, interactive services, built on top of a solid back-end)

Third generation portal (all services are provided on line, most of them paperless)

None of the above

III. Institutional policies regarding the printed and the electronic calendars

3.01. If your institution's calendar is published on the web, kindly indicate the URL where it is published:



3.02. What does your institution call its electronic calendar of programs and courses?

Web calendar Web catalog Other (please specify):

3.03 Does your institution consider changing the name of its electronic calendar of programs and courses?

No Yes I do not know

If yes, please specify to what:

3.04. If your institution has adopted formal policies regarding its printed calendar and / or its calendar on the web, kindly indicate the URLs where these policies are available, if published on the web, or kindly email the documents containing them to <u>yleibu@mac.com</u>



3.05. Kindly indicate what institution you are affiliated with:

3.06. Please indicate your institution's student population's size:

Under 5 000
Between 5 000 and 10 000
Between 10 000 and 20 000
Between 20 000 and 30 000
Between 30 000 and 40 000
Over 40 000

3.07. If you would accept a follow up interview, please provide your name, your function, your e-mail address and your phone number:

On behalf of ARUCC's Executive Committee, thank you for your time and for your cooperation.

APPENDIX C WHICH INSTITUTIONS HAVE ANSWERED THE SURVEY?

Below is the list of the institutions that have answered ARUCC's 2003 on-line survey on calendars, in the order in which the answers have been received.

- 1. University of Waterloo
- 2. Royal Roads University
- 3. St. Thomas More College
- 4. Emily Carr Institute
- 5. Vancouver Community College
- 6. Grant MacEwan College
- 7. North Island College
- 8. University of Toronto at Mississauga
- 9. St Mary's University
- 10. Sasketchwan Applied Institute of Technology (SAIT)
- 11. University of Alberta
- 12. Bishop's University
- 13. Dalhousie University
- 14. University of Saskatchewan
- 15. Lethbridge Community College
- 16. University of Prince Edward Island
- 17. Brock University
- 18. University of Guelph
- 19. Northern Alberta Institute of Technology (NAIT)
- 20. Trent University
- 21. Royal Military College
- 22. University of Toronto School of Graduate Studies
- 23. Carleton University
- 24. Athabasca University
- 25. Queen's University
- 26. University of Windsor
- 27. McMaster University
- 28. Memorial University
- 29. Centennial College
- 30. University of British Columbia
- 31. University of Western Ontario
- 32. University of King's College
- 33. Nova Scotia College of Arts and Design (NASCAD)
- 34. Acadia University
- 35. York University

- 36. University of Victoria
- 37. University of Lethbridge
- 38. Université de Sherbrooke
- 39. McGill University
- 40. Concordia University
- 41. University of New Brunswick (Fredericton)
- 42. Université du Québec (Siège social)
- 43. Université de Montréal
- 44. École Polytechnique
- 45. École des Hautes Études Commerciales
- 46. Université Laval

APPENDIX D COMMENTS IN RESPONSE TO OPEN-ENDED QUESTIONS

In many instances the survey included open-ended questions, so that the responding institutions may explain their thinking and positions on the issues raised. Below are, in their entirety, the comments provided by the responding institutions to all open-ended questions.

1.09: Impact of the Internet on the printing of calendars

- We are considering whether or not to continue print calendars at all.

- We have moved from a formal calendar to a "Prospectus". The Prospectus outlines the degrees but does not include course descriptions. All course information is on the Web. Policies on students' rights and responsibilities are published in a Student Guide. The Guide is distributed to all students.

- We do not currently print a hard copy calendar. All information is published on our website, refreshed as required, and previous information archived electronically.

- Consideration of moving to an ecalendar in the future. Updating of web to include more information.

- The College is producing less addendums and numbers of printed copies are dropping.

- There has been a drive to create a web-based calendar because it gives students wider and more efficient access to the information.

- A Calendar Review Committee recently assessed the feasibility of moving to a fully webbased calendar. While the recommendation was keep both print and web versions at this time, more emphasis will be placed on improving the functionality on the web and web interfaces. As a result of the review, some of the general information previously offered in the calendar such as the university history and the university staff listing will be made accessible elsewhere on the web.

- Students and others are referred to the electronic version of the calendar.

- Internally, the same emphasis on resources to produce a quality print Calendar. Does not matter if you have to produce 1 or 30,000, still need the quality. Externally looking to increase use of web version and decrease distribution of print version.

- *Emphasis has shifted to the web calendar as the official university calendar.*

- Web calendar is the official calendar,

- Cut the number by 70%. Online calendar is now deemed correct and we will still landfill some printed calendars.

- Increasingly applicants and on site students seek the required information via the Internet, as it is generally easier to access regardless of location. Therefore we are producing fewer hard copy versions, and depending on the nature of the request for calendar information (who, what, how urgent) we are more likely to refer them to the web version rather than send a hard copy.

- The Internet has not affected the essential content of the graduate calendar, but only its delivery. However, it should be said that we publish the full calendar and a subset known as the handbook. Combined with mounting printing and mailing costs, the graduate school has opted to print the "calendar" in two formats: the full calendar for inquiries, prospective students, and graduate administrators; and a handbook (subset of the calendar, i.e., everything except for graduate program descriptions and courses) for current students and graduate faculty.

- Students receive calendar in CD format Publications reference to calendar on web. We now only publish an abridged paper version, the on line calendar is the official copy.

- 2 schools at the University no longer print their calendar, and others are considering moving in that direction.

- Greater emphasis on web version of the calendars in response to increased use of the Internet.

- We have been seeking ways to print fewer copies in light of Web access.

- The web version of the UBC Calendar is now the official version, while the print version has no official legal status and is considered more of a "snapshot" of the information we had in our database at the time of printing. This allows for year-round updating of academic and regulatory information.

- We are about to publish our calendar to the Web for the first time this year, so we are reassessing the various purposes of the printed calendar.

- The University's 2004-2005 Undergraduate Calendar will be the last printed calendar. The Graduate Calendar is no longer printed -- it is only available online.

- We continue to print calendars as there are still many people without access to the Internet. Our Internet information has been and continues to be expanded for ease and convenience for those who have Internet access.

- Réduction du nombre d'exemplaires.

1.10: Reasons for separate graduate calendar

- GRD contains policies only; UG has policies, plans & courses; DE has policies & courses.

- Both graduate and undergraduate calendars are legal documents; content differs in that one gives graduate studies info, and the other undergraduate.

- Content and policies governing publication are the same.

- We produce a General Calendar that contains undergraduate and graduate information. We also produce a separate graduate calendar that contains the same graduate information that is in the General Calendar. It is easier for the College of Graduate Studies and Research to use this version in mail outs and for recruitment purposes. There are 4,000 copies of the Graduate Calendar printed and 30,000 copies of the General Calendar printed.

- No differences other than the Senate Committee process through which content/programs are approved.

- Undergraduate does not publish a hard copy calendar, whereas, Graduate Studies does.

- The policies and procedures between graduate and undergraduate differ significantly. The policies for the undergraduate, graduate and continuing studies calendar are very similar. However the content in terms of course descriptions, academic policies, program details etc only pertain to the target populations.

- The University of Toronto is extensive; therefore, it is not feasible to print one calendar for the entire institution. The graduate calendar (550 pages) contains all graduate programs. The individual faculties print their own calendars containing undergraduate program details.

- Graduate calendar includes Univ. Hist, Expl. of Academic Dress, Identifies student services, Awards and Financial Assistance. Also stylistic differences.

- The printed version outlines UG programs in detail, however, Graduate programs are briefly noted and students are referred to the web for more detailed info.

- Grad calendar has info for grad students. Undergrad calendar has info for each of the 8 separate faculties and schools for undergrad students (including Law, Medicine) Brochure for International Student centre describes the courses offered at the ISC

- The policies which govern their publication are the same. We have a general undergraduate calendar, a graduate calendar and a Law calendar. Although Law and Grad. Studies information is detailed in their respective calendars, there are small sections for Law and Grad Studies included in the undergraduate calendar.

- The Graduate Calendar is similar to the Undergraduate Calendar with regard to the information included in it, except the content applies to graduate studies

- No differences - just a smaller compact version of a specific academic unit.

- Senate governs the Undergraduate calendar content. Graduate Studies maintains their own calendar, although some content is passed by Senate.

- Graduate calendar information is specific to that area with much less general information than the undergrad calendar.

- The Law School prints its own calendar; the Faculty of Graduate Studies has its own calendar and concentrates on its courses, regulations and awards; due to past practice (some say tradition), the Atkinson Faculty of Liberal and Professional Studies prints a calendar.

- The policies that govern them are all roughly the same - University (senate or senate committee) approved programs/courses, prepared centrally based on input from faculties, published annually, same legal status, etc. Undergraduate Programs - (what most people at McGill call "the Calendar") contains undergraduate programs in the faculties of Agricultural & Environmental Sciences, Arts, Education, Engineering, Management, Music, Religious Studies, Science & the Schools of Architecture, Dietetics & Human Nutrition, Social Work and - pertaining to those - application/admission info, fees/regulations/policies, info on governing bodies; lists of senior administration, academic staff, minimal number of selected student-related staff; institutional history Law - contains only Faculty of Law, Undergraduate program(s)/courses -- academic rules/regulations; application/admission info, fees; lists senior administration, academic

Staff, minimal number of selected student-related support staff; faculty history; undergrad.

- No significant difference.

- Each calendar (Undergraduate/Graduate/Law/College of Extended Learning) reflects those policies, programs, regulations specific to that unit. The calendar for the College of Extended Learning is an extension of the Undergraduate Calendar as well as the non-credit offerings of CEL.

- Nous avons un annauire pour le premier cycle et un annuaire pour les cycles supérieurs. Les deux tomes comportent une section commune.

- Trois annuaires distincts : premier cycle Études supérieures formation continue Pas de distinction dans les 3, sauf que bien sûr, ce sont les programmes, cours et règlements particuliers qui sont décrits.

- Tous les annuaires contiennent les memes renseignements: structure du programme, description des cours, liste des professeurs, règlement.

- Le répertoire des programmes et des cours contient essentiellement les descriptions de cours et de programmes et vise à informer les étudiants inscrits et les gestionnaires d'études, tandis que les annuaires de facultés contiennent une information plus large et vise la promotion des différents services offerts à l'Université, en lien aux cours et programmes; notamment les règlements, le calendrier universitaire, les bourses offertes, les domaines de recherche, les professeurs associés aux facultés concernées, les activités étudiantes, etc.

2.01 Why Electronic Calendars ?

- *Ease of access; cheap; easy to search*

- We are primarily a distance institution so most of our learners are on campus for brief periods. An online calendar allows them to access the information wherever they are.

- We are a growing institution and the course and program information changes frequently (almost weekly). The online calendar contains the most current information. The costs of printing and distributing printed calendars may be able to be eliminated as more and more people are comfortable with using online calendars.

- *PDF* version only - allows more access to calendar, will reduce the number of print copies incrementally.

- Cost and accuracy/currency of information. VCC has been undergoing significant change with all programs offered in the last couple of years, the change is on-going.

- Considering for future implementation.
- Maintain one master copy and reduce addendums.

- Before electronic calendar, many problems with maintenance, production and distribution, now, maintenance, production and distribution all come from same data source, with no manual re-typing of info.

- Once the hard copy of the Academic Calendar is forwarded to the printer, an electronic copy is placed on the web.

- We post our calendar online in a pdf version and are moving to HTML format for program descriptions.

- We provide the calendar on the web in two different formats: pdf and html. The html calendar provides more functionality for students and other users. It is more searchable and key links provide users with complimentary detail. The Course Listing offered on the web is a part of an interactive web service, Bear Tracks, that provides students with a listing of all the courses currently being offered as well as an up-to-the-minute Class Schedule that shows space availability.

- A decision was made to move towards having the students do as much as possible electronically. It makes sense to have the reference materials they need to register etc. available electronically as well. It is efficient and convenient for students/faculty/staff.

- Greater accessibility. Ability to do updates throughout year. User-friendly search mechanisms. The Calendar is housed in a database which allows us to export it for print and web.

- The printed calendar is converted to an .html document that can be updated but we have not done 'just-in-time' updates due to legal issues.

- UPEI has the calendar on line.

- Less expensive to produce; can be kept current and up to date as changes are made; more accessible for students, faculty and staff, and for other constituencies.

- Both Undergraduate and Graduate. The web version is easily changed and updated.

- Demand.

- All information in the calendar is available on the web but the print version remains the official calendar.

- To meet the needs of people seeking easy, immediate access to the information contained in the calendar.

- Implemented 1. In response to needs of users to access calendar information quickly on the Web; 2. In response to budget cutbacks on printing and distribution.

- CD - light for mailing; less expensive web - convenience - 24/7 access & world wide access reduce dependency and cost on hardcopy production and mailing ability to link to other areas of interest in University.

- At AU we're a distance ed institution and many of our students are web based - we need to be too.

- To improve the product to our client, to improve efficiency with the whole calendar production process, and to save production and distribution costs.

- Responding to increased use of Internet. User-friendliness. Flexible and Searchable.

- *Ease of access, absolute necessity as technology has developed, customer demand.*

- Implemented based on the demand from faculty/staff/students. It was also implemented to keep up with technology.

- More accessible to students. Ultimately to reduce costs to allow for more frequent updates/current information to be available to students. Students expect it, it is available any time, any place there is a computer, and is relatively easy to update.

- It is more up-to-date and easily accessible.

- Students can find all other information about our university on the web; they can register for classes and pay their fees on the web. The calendar is simply the last step in this implementation. It should be complete within the month.

- But calendar, once published, is available on our website for free download.

- To provide easy access and reduce the number of calendars that must be printed and mailed.

- It is currently online and will be the only available calendar after the 2004-2005 printed version.

- Yes with growing use of the internet it is move convenient for users to use the internet version as well as cost effective for UVic.

- Ours is simply the hard copy calendar online in pdf format so technically it is not electronic but it is accessible online. This is essentially the same for the CD-ROM of our calendar that we produce only that it autostarts.

- Avoir l'information la plus à jour.

- Only to the extent that all course information, including descriptions, are stored in database tables and which allow for web reports to be generated with FrameMaker MML coding that automatically translates into the format used in the printed calendars. The appropriate courses are then cut & pasted into relevant calendar DTP files when needed. McGill has several calendars accessible on the web in PDF versions. The same course database feeds into the class schedules where information concerning currently scheduled courses can be accessed by clicking on the CRN for a specific course. This can accessed using: http://www.mcgill.ca/minerva-students/class/.

- The web is another communication and retrieval tool.

- Enhanced access to e-calendar via university web site in keeping with increased use of the web site for student/faculty use.

- Les annuaires sont sous la responsabilité de chacun des établissements membres du réseau de l'Université du Québec. Le siège social produit toutefois une liste des programmes "réseau" qui est disponible sur le site web de l'Université du Québec (siège social).

- Afin de rendre l'information à jour, accessible à un public plus vaste (mondial) et à un moindre coût.

- Les informations sont disponibles dans l'annuaire imprimé et sur le site Internet de l'École.

- Reseignements sur la structure des programmes et descriptions de cours facilement accessibles et mis à jour régulièrement.

- Pour faciliter la consultation avec un moteur de recherche intégré, pour diminuer les coûts de production et d'expédition, pour s'adapter aux nouvelles technologies.

2.10.1 Why is the web-based calendar successful or why is it not successful?

Why Successful?

- Searchable, cheap, accessible.

- It provides access to current and historical information for anyone who wishes it.

- *Easy to update and will allow for more frequent updating.*

- With the ability to update as required... applicants/student/general public have the ability to access the most up-to-date information, new program offerings can be advertised immediately, and any programs that are cancelled can be removed. Provides better service to students, reduces number and cost of printed version, easier to update.

- It provides another medium by which individuals can learn more about the institution.

- I think it is an effective tool and it is getting better, however we need to work on making the tool more interactive, making it easier to find online and easier to navigate. We also need to work on educating staff and students to use the online version versus the print version.

- The current html version of the web calendar is certainly more functional than a print version. However, our goal is to improve the functionality and web interfaces to make it more user-friendly.

- It is current, convenient, easy to access. Students, staff, faculty like it. We have received lots of positive feedback.

- It is better for students -- accessibility and better search mechanisms. More accessibility for web-friendly users.

- Positive feedback from students stating that it is so readily available for accurate upto-date information.

- More economical to produce; more current; we have web registration and other web based services for students, faculty and staff who are more accustomed to (and prefer) the web calendar.

- Undergraduate is database driven so we can produce hard copy or web from single source. Graduate is not database driven so they have to update two sources.

- Better coverage, better able to change, more current and cut about \$20,000 per year from costs.

- Moderately successful, in that it is available on the web. It needs to be in a format that is more user-friendly (past versions were PDF versions of the print calendar).

- It provides broader access and minimizes the number of requests for printed calendars.

- The eCalendar contains hyperlinks which make it navigable and user-friendly integrally with its own contents, that of the SGS site, university pages, and external sites, especially with financial agencies.

- Accessed regularly in line with new web-based reg/fees/schedule/email system kept current.

- A great source of info for internal and external, easy to search, can be quite eyecatching.

- This has been a very successful project, but not without some glitches which we are still working on. All participants are most happy with the new product and process for producing calendars.

- The undergraduate e-calendar has just been revamped. This version is much more user-friendly and interactive, providing pop-up windows and numerous relevant links. From a one-source document we have been able to produce a web version and a printed version of the calendar.

- The Web Calendar is being used successfully by faculty/staff/students/prospective students. Our objectives have not yet been met (currency, cutting printing costs, legal priority).

- It offers students incredible flexibility, it reduces our reliance on print and paper, it allows year-round updating of course and program information.

- It is more easily accessible and more up-to-date.

- It's not up yet, but I am optimistic. Useful when students register the call for paper calendars is less than before 1998. CALENDARS IN

- Somewhat. As the Web-based calendar becomes the "official" calendar, there is much to do to make it work.

- Provides access to users worldwide and reduces the need for paper versions.

- It allows students another medium for obtaining relevant and important information. We feel that relative to the printed calendar, the online calendar and CD-ROMS are highly underused. This is the reason we have not made it fully interactive.

- HTML & PDF versions are available. It is free; printed copy costs \$7.00.

- Has quickly grown in terms of how students access calendar-based information, in particular with the introduction of links within the e-calendar.

- L'information est complète et exacte en tout temps.
- Nous n'avons reçu aucune plainte à ce sujet.
- Information rapidement disponible.

- Il est relativement réussi car il est assez facile de consultation mais il est certain qu'on pourrait apporter plusieurs améliorations.

Why not Successful?

- I would prefer the calendar to be dynamic and updated on a more regular basis.

- Not interactive or dynamic inadequately linked to other material; too much unnecessary information included; it is merely a dump of the printed calendar.

- Plus lourd pour le personnel qu'ayant à faire les mises à jour.

2.11 Web-based Calendar Benefits

- Searchable, cheap, accessible.
- It is accessible and current.
- Easier to update information, cheaper if reducing print costs.
- Allows us to publish the most current information.

- Huge savings in time and money for the institution. Once this was implemented, what used to take approximately one month of staff time to organize and publish (printed calendar). Is now maintained, up-dated as needed. Many Departments now take a more active role regarding their programs, ensuring their program information on the website is current.

- Reduction in production and addendum costs and maintenance of one master document.

- Provides better service to students, reduces number and cost of printed version, easier to update.

- Aside from another medium for the distribution of information, it enables me to refer those asking queries to the official policy on a particular matter without having to repeat it.

- Information can be updated regularly and archived online, it can provide more detailed information or links to additional information not available in print.

- The html version is more easily searchable. When students are registering for classes, they can link from the course descriptions in the html version. In addition, if we are able to reduce our print distribution because students and faculty members use the html web version more, the overall benefit will be the cost savings.

- *Easy access to relevant information searchable easily updated.*

- It is current, convenient, easy to access. Students, staff, faculty like it. We have received lots of positive feedback.

- There are advantages in the backend. It is not possible to make the calendar searchable unless the information is put into a database. When the information is put into a database you are forced to deal with a management system. All the information is updated and maintained in one spot rather than formatting it all for print and then converting it into web, thus reformatting it.

- Less paper, easy access up-to-date information.

- More economical to produce; more current; we have web registration and other web based services for students, faculty and staff who are more accustomed to (and prefer) the web calendar.

- Errors can be easily corrected. Information is more up-to-date. CALENDARS IN

- Better coverage, better able to change, more current and cut about \$20,000 per year from costs.

- Availability of the information to national and international sources; reduced costs in providing print calendars

- It provides broader access and minimizes the number of requests for printed calendars.

- Accessibility is the greatest benefit. Within the next year, we hope to be able to produce the printed and electronic versions more efficiently.

- *Reduced dependency on hardcopy costs continual development of flexibility, interactivity, convenience faster to produce.*

- Database is the one source of information that is used in various places - each faculty edits their own data, and the data is used for both web and print version of calendar - one data source for awards, ac.staff, course descriptions, and degree program.

- Quick and easy to use; up to date; always accessible.

- Ease of access. Fewer (but not may) calendars printed. Can make changes or corrections immediately. Direct links to course descriptions from program requirements and course prerequisites.

- Cost effective - cheaper than mailing out calendars. It can be viewed immediately. *Errors can be fixed immediately.*

- It is searchable and can be updated (although we do not do this throughout the year).

- It offers students incredible flexibility, it reduces our reliance on print and paper, It allows year-round updating of course and program information.

- Convenience for students. Immediate access at no cost for prospective students cost savings for university minimal environmental impact.

- Freely available at no cost.

- Lower mailing costs links to web registration.

- Ability to update on a regular basis. Cost savings.

CALENDARS IN

- It would allow us to incorporate interim changes into the document process whereas we now must make reference to a legally binding document that is technically out of date.

- Information à jour pour les nouveautés.

- Accessible; appeals to "web" generation.

- Ability to use web search engine rather than "thumbing" through the pages. Ability to introduce links. Ability to update information in a more timely manner (not without its issues as noted above).

- Mise à jour instantanée. Présentation plus vivante que sur papier Possibilité de garder un historique des changements. Les informations sont disponibles dans le monde entier. Possibilité de recherche de mots, etc.

- Mise à jour régulièrement, possibilité de mettre des liens vers d'autres services de l'institution.

- Rapide et direct pour la consultation.

2.12 Web Calendar Drawbacks

- Can be tiring to "flip" through and mark areas of interest; need to track info manually.

- It is labor intensive and there is some confusion amongst users about whether to follow information in the print or web version (even though both state that the web version is the official version).

- None.

- None.

- Not everyone has access to the web but this is changing.

- The only drawback is certain users have trouble adjusting to the transition from print to web.

- It is not a particular user-friendly document because it is too large. Therefore people often miss some references to a particular topic.

CALENDARS IN

- The document cannot simply be a printed calendar posted on the web. It needs to incorporate interactivity and provide value to students who go online.

- The greatest drawback is the resistance from faculty and staff to use the electronic versions of the calendar.

- Not all users have access not easy to determine effective date of changes in regulations and programs; academic decision-making often depends on this.

- The transition year can be complicated. There are many hurdles to overcome -- particularly training new staff on a new system and helping all the content providers adapt to new processes.

- Sometimes when changes occur within a program, they are omitted from the web because it was not on the hard copy because of being busy at something else. Overload!

- Still have those with limited access to the web. Also need resources to maintain web calendar. Submission process is currently complex but we are developing a new web based process to address this.

- *The need for print version to take to meetings.*

- Everyone has to cooperate to keep it current.

- It creates an additional task beyond the hard copy publication, and it raises questions about whether or not to implement changes immediately vice delaying until the next publication date, as there are pros and cons to both approach. With only a hard copy version this was less of an issue.

- Change of culture issues.

- Access when system down.

- Learning curve.

- If it is not updated regularly or is not user-friendly, web calendars can prove inefficient and frustrating to use.

- Full-time effort. Pressure from academic units to update the web calendar when it is supposed to match the current version (only supposed to be updated once per year).

CALENDARS IN

- Not easily printable (should the user wish to print it) search function is not great

- We would like to go to real-time updating of the web calendar, i.e. publishing each change as it is approved, but difficulties with archiving the material and the requirement to occasionally produce calendar content "exactly as it appeared" on a certain date means that real-time updating is not currently possible.

- Many more changes are passed than were before we had an electronic format, and updated once a year for the print version. None that I can see, but then it is not up yets.

- Keeping it accurate and the links valid.
- Can't think of any.

- Web version does not have sufficient anchors for detailed access to specific content.

- When using our Degree Audit program, we would need to incorporate new rules more often. How would we ensure which calendar new admits get, etc.

- Crée des attentes et à la merci de la technologie.

- Need Internet connection.

- Difficulté de discipliner le personnel : création et modification de programmes en tout temps en raison de la disponiblité du web; mais il faut tenir compte que l'annuaire a aussi une valeur réglementaire et que par conséquent, il faut que l'information déjà publiée conserve sa pleine valeur pendant une certaine période de temps.

- Compliqué de l'avoir sous la main lors d'une réunion, ou dans le métro Pas de vision globale. N'incite pas à la consultation informelle (feuilleter un document permet de trouver des choses que l'on ne cherchait pas). Plus facile à lire que sur écran.

- Pas d'historique des versions antérieures, bug informatique peut paralyser la consultation, pas accessible à tous du point de vue de l'installation informatique.

- Plus lourd pour le personnel qu'ayant à faire les mises à jour.

2.13.1 Web Services that the Web Calendar Supports, Complements, Enhances, or Allows to Be Built

- Supports enrolment, timetabling, scheduling.

- Degree audit, On- line application, Web Registration.

- When we move to web based application and registration, we will build links to the individual programs, so that applicants will be able to view up-to-date information and hopefully be better advised/knowledgeable on the program(s) they wish to take.

- Development of student web portal - students will be able to select which information they would like automatically displayed from calendar. The online timetable can now dynamically link to calendar, and URLs remain the same - no yearly update of web addresses necessary.

- Complements our academic audit; provides a greater amount of information to items commented upon briefly in our Viewbook.

- Content management where information can be updated regularly and by one individual, customized responses to inquiries where information can be emailed as requested and more interactive with links to additional information.

- It is a necessary part of web registration. This application enhances and compliments the Registration Guide. There are direct links from the online Registration Guide to the online Calendar.

- Many people all over campus link to the Calendar. The web-based calendar enhances all professors and departments web pages in that they have direct links to their course listings in the Calendar. We have standardized the URL naming scheme to make this very easy for them.

- E-mail contacts - registering for Student for a Day, Tours, etc.

- Timetable Graduate application form Applying to university, unofficial transcripts.

-Connects with Faculty and Department/Centre web sites; as well as our Student Registration System.

- Individualized information.

- Everything from information to application to registration to mark statements to graduation to convocation to alumni relations to job placement. Everything we do.

- Not built yet, but could complement on-line viewbooks, degree audit systems etc. The eCalendar draws prospective students in to find out more about our institution and to visit other parts of the site. Our graduate site is for prospective students, current students, postdoctoral fellows, graduate administrators, and supporters/alumni. SGS is in the process of developing an on-line application for prospective students. Current students can register for English language enhancement courses.

- A "What's New" section keeps the graduate community informed. The site has a search feature if users cannot readily find what they need. Students enrol in courses at their home department. Although not yet interconnected, have moved to web based services for students, sites for online forms, moving toward communication dependency with students via institutional email...

- We're hoping to build a student portal - we can have info that applies to that student only.

- It allowed to build a comprehensive programs of study webpage. Our web calendar pulls course descriptions from our SIS, enhancing and complementing this system.

- At the moment the calendar does not. However as we continue in the development of our self registration system the electronic calendar (most likely in a new format) will be used extensively in various processes. (i.e. linking timetable data to course descriptions and vice versa). 1. Admission application 2. Housing application/information 3. Academic units links and contact information 4. Requests for information

- Our Web student services (such as Web registration) do not currently draw on the course/program info that is in our Web calendar (no common repository for these data)

- A Degree Audit system.

- Web registration.

- Will use it more and more to interact with our Web-based enrolment system.

- Some other services link to course descriptions Course descriptions can be linked to registration process.

- Links to up-to-date fee information that can be out of date in the print calendar. Ability to link to calendar course descriptions directly.

- Admission en ligne, inscription en ligne, réquisition de fournitures, d'attestations diverses, WebCT, etc. admission/inscription.

2.14.1 Internal Links and URLs

- Links are provided to other RRU web pages (programs, services) and external web pages (financial aid, transfer agreement partners).

- Web registration, course outlines, faculty bios, Galleries, URLs are not currently available as we are updating our web.

- Presently, the web calendar links to any departmental websites, as well as FAQs.

- Currently students can download an application form, when web applications is enabled it will take them directly to the electronic application Each course description links to the appropriate timetable, departmental, course, and program web sites.

- Not yet.

- Apply Now link Academic Calendar home page Department specific to that program home page.

- Link to the University Secretariat for the most current codes of applicant and student behavior (www.ualberta.ca/~unisecr/appeals.hml).

- Links to Faculty information. The timetable is linked to course descriptions in the calendar.

- Links to various web pages on campus. For example there is a link to the University Secretary's Office that refers to policies that affect the student. There are also links to other college's webpages.

- Course descriptions Student Awards All Departments on campus (www.upei.ca/biology) Convocation ceremony (w.upei.ca/convocation).

- Courses, programs: www.brocku.ca/webcal/2003/undergrad/BIOL.html www.brocku.ca/webcal/2003/undergrad/KINE.htmlGraduate - awards.

- There are hundreds of them.

- www.trentu.ca/academicskills can be reached through the calendar.

- Links to any area with a web site on campus (e.g., departments, support services

- Just to the rest of the university website.

- English Language and Writing Support www.sgs.utoronto.ca/english/regguidelines.asp Student exchange office: www.utoronto.ca/student.exchange Links to departmental Web sites http://www.utias.utoronto.ca/.

- Registrar's Office, student support services, academic departments.

- Policies, phone listing.

- Links to fees and registration info on the main Registrar's web page - links to student services, campus map, senate policies here is the main Queen's calendar website, you can take a look at any calendar from here (Law and Arts & Science are in progress).

- Among others, our calendar links to: the Centre for Flexible Learning: http://athena.uwindsor.ca/flexible the Student Information System (SIS): http://athena.uwindsor.ca/sis.

- The calendar links internally to such things as: course descriptions (http://registrar.mcmaster.ca/CALENDAR/year2003/sec_581.htm) other sections of the calendar (http://registrar.mcmaster.ca/CALENDAR/year2003/sec_567.htm) departments (http://registrar.mcmaster.ca/CALENDAR/year2003/sec_579.htm).

- There is extensive cross-referencing within the print version. Those cross-references are transformed into hyperlinks for the web version. For example, many sections refer back to the "Fees" chapter.

- We will be linking course descriptions to our academic timetable.

- Web registration.

- Search Course Descriptions; Registration and Enrolment; Admissions.

- Departmental homepage.s

- Faculty sites; My Concordia portal.

- To areas of the UNB web site but not outside UNB.

- Lien entre l'annuaire et les sites Internet des cours géré par les professeurs.

- Hec en ligne (http://alize.hec.ca/prod/) Associations étudiantes - par programme ex:(http://www.aepchec.com/) Centre d'aide en mathématiques (http://www.hec.ca/cam).

- Des bases de données mises sur pied dans différentes facultés s'alimentent à partir de ces liens.

2.15.1 External Links and URLs

- Financial aid, transfer agreement partners.

- Post-Secondary Application Service of BC.

- Law School Admission Council (www.lsac.org).

- *There are links to departmental web sites.*

- Registration Guide.

- www.mcgill.ca/macdonald/campus/ Graduate - NSERC, SSHRC, OGS.

- There are scores of them.www.haliburtoncooperative.on.ca - this is a program which provides community based education and research for current students.

- Credential evaluation services as mentioned above.

- OUAC: http://www.ouac.on.ca/

- The calendar has external links such as: OUAC (http://registrar.mcmaster.ca/CALENDAR/year2003/sec_76.htm) TOEFL (http://registrar.mcmaster.ca/CALENDAR/year2003/sec_28.htm).

- Many program descriptions invite students to departmental websites for up-to-date program information. We discourage departments from removing detailed information from the calendar in favor of a URL, both because it is difficult to monitor whether the information posted at external URL's has been properly approved and because a document comprised primarily of a list of URL's is not very useful to the print user. The calendar will be located on our main website. Eventually we may link sections of the calendar to the appropriate page on the website.

- Agréments (www.mba.org.uk).

- Ordres professionnels (www.cma-quebec.org).

- Conférence des recteurs (http://secure.crepuq.qc.ca/4DLINK100/4DCGI/843/0/Accueil.shtml).

- Des questionnaires d'organismes externes.

2.16 Departments Responsible for the Web Calendar

- GRD/RO/DE.

- Marketing - designing and implementing Learner Services and Registrar - maintaining Academic Departments - maintaining department specific pages.

- Student Services and ITD.

- Managed by The Identity Committee (membership includes, the president, Up Academic, Registrar/Director of Student Services, Director of Information Services,

- Manager of IT Services, and several faculty reps. We have contracted the re-design to a private design house in Vancouver.

- The Registrar's office is responsible for all content. The WEB Manager designed the site.

- Registrar and Communications.

- Joint between Computing Services (technical side) and Registrar's Office (content and policy).

- My Assistant Registrar: Systems and the IT Department of the institution.

- Customer Services and Marketing and Communications.

- Office of the Registrar and Student Awards. Registrar with help from external consultant and internal IT Services staff.

- Registrar's Office IT, Communications & Research Office within the Student & Enrolment Services Division.

- Translated from print version by New Media Services department.

- Registrar's Office.

- Office of the Registrar (with assistance from ITS).

- Undergraduate Program Services for undergraduate. Graduate Program Services for graduate.

- Corporate Communications.
- Communications.
- Computing and Audio Visual Services.
- Communications Office in conjunction with Information Systems Office, both at SGS.
- Senate Office.

- Public Affairs at the moment, the University Registrar's office is responsible for the ecalendars project.

- Office of the Senate Secretariat.
- Office of the Registrar.

- Office of the Registrar and the Department of Computing and Communications.

- Information Technology Department in consultation with the Marketing and Communications Department.

- Enrolment Services (Senate & Curriculum Services and Communications Services).

- Registrar's Office, under the supervision of Senate.
- Registrar's Office registrar's office.
- Registrar's Office.
- Office of the Administrative Registrar & UVic Communications Services.
- Same unit as the rest of the calendar.

- Bureau de la registraire.

- Office of the Registrar.

- University Secretary with technical support from various units.

- Design général: Direction des communications Implantation: les services informatiques Maintien, mise à jour: Registrariat.

Collaboration entre le Bureau des affaires académiques et le Service informatique.
Direction des communications Bureau du registraires

- La Section des publications officielles du Bureau du secrétaire général, en collaboration avec la compagnie Logidec/Moore.

2.17.1 Other Publishing Systems

- Print - Adobe PageMaker Electronic -Microsoft Content Management System Software called Calendar Tools.

- VCC contracted with a software company to create and modify to specific needs of VCC.

- Microsoft word PageMaker.
- Front Page, QuarkXPress and Adobe Acrobat.
- Adobe Acrobat PageMaker Cold Fusion Perl.
- MS Word.
- Adobe InDesign.
- Printed version is PageMaker Web is NetObjects Fusion.
- Adobe PageMaker.
- Graduate PageMaker Undergraduate QuikSilver.
- Several.
- Don't know.

- Print - PageMaker Web - FrontPage and Adobe Acrobat.

- Adobe InDesign (for printed) Macromedia DreamWeaver (web) Also Adobe Acrobat, PDFs.

- DAG, Calendar Navigator software is used to produce both the web and print versions of the calendar. Queen's Graphic Design unit does some final editing on the print documents using QuarkXpress before sending the files to the printer.

- QuarkXpress is used for the print calendars LotusNotes is used for the web.

- The calendar is updated in an SGML package and converted to HTML and RTF. PageMaker is used to create printed version for the RTF data.

- Word Perfect and Netscape Composer.

- Manual and also FileMaker database Word, although we are currently in the process of developing a new calendar system with DAG which will use QuarkXpress.

- Quadralay WebWorks and Quarkxpress for the printed version.

- Front Page and Word.

- *Printed* = *FrameMaker*; *Web* = *DreamWeaver*.

- NA.

- We use Acrobat for our online version, and QuarkXpress 6 for our printed version.

- PageMaker et Netscape Composer Microsoft FrontPage.

- Some information is held in UNB-developed files and we use FrameMaker to generate web and print files for calendar.

- Standards établis avec LOGIDEC
- Microsoft Word.
- Je ne sais pas.
- Ventura.

2.22 Issues

Content updating and archiving issues

- There is a regular debate over effective dating and when data should be displayed to users.

- Need for clarity with policies associated with effective dating for course begin terms and Plan activation.

- With multiple "editors" information is not always entered in a consistent format.

- Although no problems have arisen yet, there is an awareness that the frequent changes may result in putting existing learners in "breach" of regulations or program requirements. The unofficial solution is to allow the learners to follow whichever path works best for them in these cases.

- While we are archiving the data. We have not developed a way for the general public to access archived information.

- Need to make sure that all old calendars available, also need to make sure all changes are tracked, and old versions saved for disaster recovery.

- Trying to ensure that it is as user-friendly as possible.

- Persuading all the people at the institution that the Calendar is not doing to be updates on the web throughout the year for legal reasons. We only have one calendar per year not something on the web which is not this year's nor next year's but something in between!

- Issue exists in pdf format which can be time consuming to update. Departments also provide program information on individual pages which may not be updated as often as the online calendar causing inconsistencies in information.

- Navigation to the calendar is sometimes difficult to find on the web. It's also educating staff to encourage students to use the online version (send emails rather than mailing a print copy).

- Need to ensure we archive the most updated online version.

- There have been archiving issues for the html version of the calendar.

- Daily updating was time consuming. However, with the current software, non-technical staff will now be able to do the updating quickly.

- Is it confusing to the student to have archived versions available publicly?

- We have no archiving in place at the moment.

- Had to make it work with PageMaker - what we were using to produce the printed copy.

- Ensuring all university links to the calendar link to the most recent version.

- Determining level of details for broadcasting updates manage changes for current vs. next academic year implementations.

- The calendar committee at Queen's developed processes for updating and archiving the on-line calendars.

- Determining what should and should not be updated and the frequency of the updates. Given that students may follow the calendar of the year they entered, problems and confusions may arise if the web and print calendars are too different.

- Published yearly but updated for the next year daily - very time consuming.

- Creating output to HTML from SIS database (or other database/repository).

- We've decided to maintain a quarterly web calendar release because of the difficulty of archiving material that has been updated on a real-time basis.

- Keeping the information accurate and current and preserving the links.

- Suivi des nouveaux programmes.

- Dédoublement du travail et pression pour la mise à jour régulière.

- Waiting for the printed version to be finalized WordPerfect (DOS) conversion to HTML.

- The whole area of integrating the approval process with the technical process of updating.

- L'archivage n'est pas encore implanté.

Access and distribution issues

- Decentralized input leads to coordination problems for the desktop input.

- The content management system creates user-unfriendly URLs. This makes access difficult.

- Making certain that the University's homepage enables direct and easy access to the Academic Calendar.

- There are issues for some students (mainly international).

- *Trying to create a template that all departments could adhere to.*

- Browser updates require adjustments to the web site.

- Students find the electronic version accessible, but we need to provide a user-friendly version of the document.

- Balance of lowest common denominator for access vs. smart looking site.

- Users must have web access.

Quality of service issues

- Shared responsibility also means that people are updating the calendar "off the corner of their desks". Depending on other demands, changes may not be made in a timely manner. The system is not especially easy to use, particularly if you want to do something a little bit different than the CMS templates allow (like insert a table, for instance).

- Need to make sure that calendar is user friendly to the degree that it is more efficient and easier to use than paper version.

- Resources are an issue where several projects are priorities for the webmaster and updating the calendar is not always timely. If a student is on dial-up, downloading a 5MB file can also be timely.

- Faculty advisors prefer using the printed calendar when they are working with students.

- Accessibility guidelines, the Calendar needs to be accessible to everybody.

- Ensuring the web calendar is up to date and changes are made in a timely fashion.

- Usually it takes longer to get the electronic version up on the web after than it has been published than desirable, due to the limited personal resources available to do the work.

- Access vs. user friendliness.

- How often to update, how often to seek revisions from departments, to whom to continue sending printed calendars we consider a web calendar to be far superior in this aspect, whether to consider the current web version legally binding.

Technological and technical issues

- There have been some minor problems with modifying the Calendar software with Cold Fusion, and there are some limits to the amount of text in some areas... however, this has been resolved to the satisfaction of all.

- We are only beginning the process and will have other issues to deal with when we move to a more interactive calendar instead of a PDF file on the web.

- Need to make sure that the load time is fast so it is accessible by wide variety of connections. Achieved by automatic publication of static html by database instead of calls to database on every page load.

- PERL reads printed calendar and marks necessary information to website and MYSQL server. Formatting codes in printed calendar created problems that needed extra effort handling in program.

- Working on development of new standards for submission to address current difficulties.

- Use single database to create both hard copy and web.

 Finding optimal technology and processes to do the work once to filter into electronic and print.
 CALENDARS IN
 CANADIAN COLLEGES AND UNIVERSITIES
 Appendix D Netscape composer and word perfect do not work well together - need to investigate a better, more efficient way to produce both print and web versions of the Calendar.
Too much time to create the course/program database.

- Because ours is currently an older system, we have some issues with links, although this is being addressed by updating to the new system.

- We are producing the electronic calendar in the same format as we did seven years ago. At that time we were most interested in having a one source document which would allow us to create both a web and printed version of the calendar. Technology and customer demand has changed and we now need a calendar which is much more dynamic and interactive.

- Logiciel peu convivial pour le personnel régulier de l'institution.

- Challenging to integrate the various sources of information that are distributed to faculties for review and information that is in the review/approval process. Ability to link to key databases held in our information systems - faculty listings and course master timetable information.

- La production de documents PDF est trop onéreuse (en temps) pour permettre laa production de docements dans ce format plutôt qu'en HTML

Legal issues

- Need to make sure a solid system in place to review all updates and ensure accuracy of information

- Need to ensure we archive the most updated online version.

- As long as we don't have version discrepancies there is not a legal issue.

- Concerns with changing content

- The web calendar is considered to be the official university calendar. Have not sufficiently addressed potential legal issues related to this - have not been challenged on this as yet but recognize the need to do this.

- These issues were also discussed by the committee, if there is no printed calendar, then the on-line version is the official version; otherwise, the print version is the 'official' version (at the moment).

- Web calendar must be identical to the print calendar.

- Conflict between e-calendar and printed can be perceived in terms of contract and legal issues/decisions.

- The e-calendar has legal status BUT we would continue to consider the paper calendar as the definitive source of information. This is an area that requires further discussion given that it is an evolving area in the legal community.

- Les facultés copiaient les informations du site officiel dans leur propre site sans assurer la mise à jour subséquente.

Cost issues

- Printed copy too expensive.

Other issues

- Should we go to virtually a web-only calendar (hard copy not distributed to students and faculty) we believe there will be a significant push back by these groups.

- The software charge per year is currently 0.00, but this will change when we implement the new DAG software.

2.23 Lessons

Content updating and archiving lessons

- We have made the pdf version of the print calendar our archival version as it contains the complete course listing. On the web, the course listing is offered through an interactive student service.

- Departments have a tendency to want to change the electronic version. Major changes wait for the next printed version.

- Ensure complete migration key edits complete.

- We use word perfect for the print version and copy and paste it into the web version. This does not work well and the web version must be manually adjusted to look like the print version.

- We need an end-to-end polypublishing solution with a single source database/repository

- There are costs and benefits to a data-driven, single-source approach to content management. Neither the web nor the print version imbues the best of their respective media, but instead we've settled for the best happy medium.

- Labor intense.

- How to produce a quality printed version plus an online fully hyperlinked version.

- S'assurer d'avoir une solution supporter par le service des technologies de l'information de l'institution.

- Required dedicated human resources with the technical background to manage and the understanding of the "calendar" proces and how new programs/revisions etc are vetted.

- Beaucoup de travail et trop peu de moyens : aucune ressource du Bureau des affaires académiques (surplus de travail).

Access and distribution lessons

- Start simple but start somewhere.

- Improved navigation and staff training.

- Access to the html version of the course descriptions (and associated registration process) was not intuitive. The new version of PeopleSoft should solve some of these issues.

- Keep simple avoid too many bells & whistles.

- Notify units when the Calendar is expected to be on-campus and request that they place their order immediately.

- People/public still wants to receive the paper version, which is in conflict with the objectives of cost cutting and the principle of access (we assume that Web versions are perceived as being more accessible and that we reach our audiences more effectively this way. Our market doesn't always agree).

Quality of service lessons

- *HTML formatting so webmaster does not need to update content: Customer Services can update it.*

- The findings of the Calendar Review Committee highlighted that the print calendar is an important tool for both students, faculty members and staff. Work will continue on improving the interface to web versions so that all these users will find using the web easier.

- Refer to web version as much as possible to evolve culture to web.
- Have reported broken links fixed immediately.
- Respond in a timely fashion to inquiries.
- all links must work properly; no service interruptions.

- As we improve the quality of service provided via the e-calendar, the greater the expectation for further improvements.

Technological and technical lessons

- The html version of the web calendar needs to be highly functional and easy to use if it is to be accepted and used more by key audiences.

- Make as user friendly as possible within budget constraints remember, can't please everyone.

- The importance of structuring and organizing the web version of the calendar in a userfriendly way.

- Investigate better ways to produce the print and web versions of the calendar.

- We expect to constantly be migrating from one system to another, approximately every three to five years. Decisions about investing in the development of particular platform or system should be made with this in mind.

Legal lessons

- Make sure the print and web versions match.

- Institutions must always be able to produce calendar content as it appeared on a certain date. Lawsuits or legal challenges extend years beyond a student having attended classes, making archiving of information particularly important.

- Toujours pointer vers le site oficiel plutôt que de le reproduire localement sans assurer la mise à jour.

Cost lessons

- Maintenance cost will be negligible if process utilizes existing infrastructure.

- Resources are required to update the web and ensure it is a valuable tool for all audiences.

- It is cheaper to have just an electronic version of the Calendar - it is most costly to produce a print version.

- We originally thought the number of printed calendars would drop substantially but we still print about 30,000 every year.

APPENDIX E CALENDARS ON THE WEB ADDRESSES

Below is the list of institutions that have provided addresses of their web-based calendars:

Acadia University http://www.acadiau.ca/registrar/2003_calendar/homepage/html

Athabasca University http://www.athabascau.ca/

Bishop's University http://www.ubishops.ca/academic/index.html

Brock University http://www.brocku.ca/webcal/2003/undergrad/ http://www.brocku.ca/webcal/2003/graduate

Carleton University http://www.carlton.ca/cucc http://www.gs.carleton.ca/calendars/current

Centennial College http://www.centennialcollege.ca/

Concordia University http://registrar.concorida.ca/calendar

Dalhousie University http://www.registrar.dal.a/calendar/

École des Hautes Études Commerciales <u>http://www.hec.ca/programmes/</u>

École Polytechnique http://www.polymtl.ca/etudes

Emily Carr Institute <u>http://www.eciad.ca/</u>

Grant MacEwan College http://www.macewan.ca/publications

Lethbridge Community College <u>http://www.lethbridgecollege.ab.ca/</u>

McMaster University http://registrar.mcmaster.ca/CALENDAR/year2003/index.htmMemorial University http://www.mun.ca/regoff/calendar/

North Island College <u>http://www.nic.bc.ca/</u>

Northern Alberta Institute of Technology (NAIT) <u>http://www.nait.ab.ca/</u>

NSCAD University http://www.nscad.ns.ca/

Royal Military College http://www.rmc.ca/academic/registrar/programme/index_e.htm http://www.rmc.ca/academic/registrar/programme/index_f.htm

Royal Roads University http://www.royalroads.ca/Channels/for+learners/admissions/calendar+2003/default.htm

Saskatchewan Applied Institute of Technology (SAIT) http://www.sait.ab.ca/calendars/daycalendar/default.htm

St Mary's University http://www.smu.ca/registrar

Trent University http://www.trentu.ca/calendar

Université de Montréal <u>http://www.regis.umontreal.ca/publications/</u>

Université de Sherbrooke http://www.usherbrooke.ca/registraire/

Université du Québec (Siège social) http://www.uquebec.ca/lesetudes/progr/index.shtml

University of Alberta http://www.registrar.ualberta.ca/calendar

University of British Columbia http://students.ubc.ca/calendar

University of Guelph http://www.uoguelph.ca/academic

University of Lethbridge http://www.uleth.ca/reg/calendar/index.html

University of New Brunswick (Fredericton) <u>http://www.lib.unb.ca/texts/calendar</u>

University of Prince Edward Island <u>http://www.upei.ca/registrar</u>

University of Saskatchewan http://www.usask.ca/calendar/

University of Toronto at Mississauga http://www.erin.utoronto.ca/regcal/WEBcalendar.html

University of Toronto School of Graduate Studies http://www.sgs.utoronto.ca/current/calendar/

University of Victoria http://wev.uvic.ca/calendar2003/

University of Waterloo http://www.adm.uwaterloo.ca/infoucal/

University of Windsor http://cronus.uwindsor.ca/units/registrar/calendars/under2004.nsf/Calendar?OpenFramesa

APPENDIX F CALENDAR POLICIES ON THE WEB ADDRESSES

Below is the list of institutions that have provided addresses of policies, posted on the web, which govern the publication of their printed and web-based calendars:

Brock University http://www.brocku.ca/webcal/2003/undergrad/disclaimer.html www.brocku.ca/secretariat/handbook/fhb2/9.5-9.11.html - 9.5

Carleton University http://www.carleton.ca/cucc/university/009access.html www.gs.carleton.ca/calendar/current/disclaimer.html

Royal Military College http://www.rmc.ca/academic/grad/index_e.html.

University of Prince Edward Island http://www.upei.ca/registrar/html/notices.html

University of Victoria http://web.uvic.ca/uvic-policies/pol-2003/2100CS.html

University of Western Ontario http://www.uwo.ca/univsec/handbook/