

Response of the CMS Electronic Services Committee
to the
Report of the Ad Hoc Committee
on CMS Electronic Services and Camel

1 Preamble

At the December 1999 meeting of the Board of Directors of the Canadian Mathematical Society (CMS), it was moved and passed

That, in accordance with the *Final Report of the Ad hoc Committee on Electronic Services and Camel*, the Electronic Services Committee (ESC)

1. establish clear statements of the functions and priorities for the CMS web site (Camel);
2. establish clear administrative structures for ongoing decisions regarding Camel;
3. establish a job description for the Camel Director and, possibly, Camel technical staff;
4. review the Terms of Reference of the ESC, including membership and consultants to the ESC;
5. consider other matters contained in the Final Report and make recommendations to the Executive Committee by April 1, 2000.

It is clear to the Electronic Services Committee that the CMS needs to have in place a plan that reflects the needs and priorities of the Society while also recognizing the requirement for a flexible, agile organizational arrangement. We believe we have reached agreement on a set of recommendations that will allow the Canadian Mathematical Society to move effectively into the rapidly evolving world of technology.

This document is time sensitive. What we recommend today may be superfluous or inappropriate tomorrow. For example, a current proposal that a secure method be found to permit processing of on-line payments to the CMS by credit card will soon, we hope, be irrelevant. While our request for a new Camel front page has high priority today, with luck, the priority will be low in six months time. In order for the Canadian Mathematical Society to keep pace with changes in technology and to be able to adapt quickly to new circumstances, we recommend that this document be reviewed regularly, at least annually, by the Electronic Services Committee (ESC) and revised as appropriate.

2 Areas of Immediate Concern

This committee views as areas of major current concern, the need for

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- a complete overhaul of Camel's front page, with appropriate redesign of the site's architecture;
- provision for on-line payment to the CMS, with secure encryption of credit card particulars, of meeting registration fees, CMS membership, journal subscriptions and other CMS materials;
- abolition of user id and password requirements for persons logging in from sites that are institutional members of the CMS, to all areas of the CMS web site except those containing private CMS committee documents;
- as much free access as possible for those persons logging in from non-CMS sites.

Of lesser, but still considerable, importance is an investigation of the possibility of on-line voting for all CMS elected positions. These items should be addressed as matters of urgency in the year 2000.

3 General Overview

In this section, we present a general overview of our plan for the Society's electronic services in the immediate future, the key components of the operation and a reporting structure which we believe will prove effective and efficient.

We recommend that the Canadian Mathematical Society create the position "Director of Electronic Products and Services" (hereafter called "Director"), a name which includes recognition of the fact that the CMS is already distributing electronic products in the form of on-line periodicals and expresses our expectation that more electronic products will soon be marketed by the CMS. We envisage this position as paid part-time, on the order of 25-33%.

Reporting to the Board of Directors through the Executive Director, the Director is the final authority and accountable to the Board of Directors in matters relating to the Society's electronic products and services. He or she is the person ultimately responsible for the way the Society delivers and maintains its electronic offerings.

Day-to-day operations of CMS electronic products and services are managed by a Camel Manager and a Digital Editor who are appointed by the Executive Director, on the recommendation of the Director of Electronic Products and Services and in consultation with the Electronic Services Committee, and report to the Director. Both positions should be paid.

Camel is the web site of the Canadian Mathematical Society, so the Camel Manager is responsible for the design and maintenance of this now large operation. The duties associated with this position mandate that it be virtually full-time, at the very least 75% part-time. The Digital Editor is responsible for ensuring that CMS on-line publications are kept up-to-date and maintained in a way which maximize usefulness and potential. This is at best a 25% part-time position. Consulting regularly with the Director, the Camel Manager and Digital Editor nevertheless are relatively free to carry out approved tasks following the priorities specified by the Director. Each provides the Director with an annual budget

request which incorporates a three-year forecast. Both individuals are expected to keep abreast of changes in technology and to advise the Director of potential areas which the CMS should explore. From time to time, specific experimental projects may be proposed. If approved, these are funded on a contract basis with expenses charged to a reserve fund controlled by the Director.

The Electronic Services Committee is an overseeing and advisory body. On matters involving personnel, the ESC endorses recommendations proposed by the Director to be acted upon by the Executive Director. Policy decisions are made only after discussion between the ESC and the Director and, normally, upon mutual agreement. All recommendations for significant changes in policy are submitted to the Board of Directors by the Electronic Services Committee. In matters involving normal day-to-day operations, authority for decisions is delegated to the Camel Manager and Digital Editor through the Director.

The Executive Director and Director of Electronic Products and Services are encouraged to consult with the Electronic Services Committee as appropriate. The Director of Electronic Products and Services provides a report to the ESC at its regularly scheduled meetings.

3.1 The Director of Electronic Products and Services

The Director is responsible for creating an annual work plan and ensuring that it is carried out. Such a work plan should recognize the need for flexibility and the certainty that unanticipated projects and hardware/software failures will arise. Any of those items of major current concern described in Section 2 which may remain at the end of the year should have highest priority in the Director's 2001 work plan.

In consultation with the Executive Director, the Director creates an overall business plan and, in the light of budget requests from the Camel Manager and Digital Editor, prepares an annual electronic services budget for the CMS Finance Committee. In recognition of the fact that unexpected expenses will arise and of the need to support special developmental projects unforeseen at the time of annual budget preparation, it is recommended that some fraction, on the order of 20%, of each year's budget be retained by the Director as a contingency fund. Requests from the Camel Manager or Digital Editor to support special projects not provided for in the budget are made to the Director who responds in a timely fashion after consultation with the Electronic Services Committee.

Because of the revenue-generating potential of the Society's electronic offerings, we recommend that the Director serve on the Society's Fund Raising Committee. The Director of Electronic Products and Services should not be the Camel Manager or the Digital Editor. The Society should consider the advantages of appointing a Director who resides within commuting distance of Ottawa.

3.2 Camel Manager and Digital Editor

The Camel Manager and Digital Editor prepare annual budgets including three-year forecasts for their respective operations for submission to the Director. After these budgets are

approved by the Board of Directors, the Camel Manager and Digital Editor control their own expenditures and are responsible for the day-to-day operation of their offices, including the hiring and training of staff and the purchase and maintenance of hardware and software, subject to budget. They are responsible for ensuring that priorities assigned to areas of their responsibility are consistent with those specified by the Director. Questions or ambiguities are presented to the Director who makes decisions after consultation with the Chair of the Electronic Services Committee.

3.3 Electronic Services Committee

The Electronic Services Committee is a small group of individuals who are concerned with the public image of the electronic products and services provided by the CMS. It is a reflection of the Canadian mathematical community and, in particular, representative of the general membership of the Canadian Mathematical Society. Its members bring perspectives and priorities of the CMS membership to the attention of the Director.

The Committee oversees the Society's electronic operations and serves as an advisory board to the Director of Electronic Products and Services. No changes or additions to existing policy take place without comment from the ESC. Significant changes are transmitted by the ESC to the Board of Directors for approval. The Committee monitors the CMS web site and recommends changes to the Director when and as necessary. It establishes and regularly reviews the job description of the Director. It evaluates the performance of the Director.

Inexperience and frequent turnovers in superiors are not conducive to stable management. Because of the desirable and expected close working relationship between the Director and the chair of the ESC, it is recommended that the chair's two-year term be preceded by one year as chair-elect and followed by a one year term as past-chair. Since chairs are often selected from current committee membership and are appointed for "two years plus one", the import of what is suggested here is to designate the next chair one year in advance and to create the formal positions of chair-elect and past-chair. We feel this will provide more consistency in governance and establish closer working relationships between the Director and ESC Chairs.

4 Job Descriptions

4.1 Director of Electronic Products and Services

The Director of Electronic Products and Services is the final authority and accountable to the Board of Directors in matters relating to the Society's electronic offerings.

The Director is appointed on a paid part-time basis (25–33%) by the CMS Board of Directors on the recommendation of the Electronic Services Committee and reports to the Board of Directors through the Executive Committee. The initial appointment is for three years and will be reviewed midterm. Negotiated three to five year extensions are possible.

The background and experience of the ideal Director will reveal a blend of academic and technological pursuits, organizational skills and experience in planning and developing organizational proposals. The Director could be an academic who is technically knowledgeable and has a strong interest in web design and development. The appointment of a Director who is a full-time member of a university faculty should be accompanied by letters of support from that university's administration and assurances that the importance of the job will be recognized by suitable adjustments in expected university duties. A nonacademic with strong technological skills, a proven track record in the business world, some knowledge of academia and, in particular, of the culture of Canadian mathematics, could also be an appropriate director. Since the Director is the public face of the CMS web site and will have regularly to defend and promote policy decisions and respond to complaints and concerns, it is essential that this person's background include evidence of flexibility, sensitivity and superior interpersonal skills.

The specific duties and responsibilities of the Director follow. It is understood that these are carried out in consultation with the Electronic Services Committee and the Executive Director.

1. to prepare an annual budget for the Society's electronic products and services upon receipt of budgets from the Camel Manager and Digital Editor;
2. to prepare an annual work plan which is sufficiently flexible to meet special requests and unexpected events;
3. to create a business plan for the Society's electronic products and services and recommend to the Board of Directors policies and actions likely to be of financial benefit to the Society;
4. to establish specific priorities for the development of CMS electronic products and services;
5. to ensure that the declared functions and priorities of the CMS web site are up-to-date and appropriate for the times;
6. to ensure that the electronic products and services provided by the Canadian Mathematical Society are in accordance with the Society's requirements and policies;
7. to recommend to the Electronic Services Committee changes in policy concerning the Society's electronic services;
8. to recommend to the Electronic Services Committee for transmission to the Executive Director the appointment of the Camel Manager and Digital Editor;
9. to review annually the performance of the Camel Manager and the Digital Editor;
10. to review and revise where appropriate and in consultation with the individual concerned, the job descriptions of the Camel Manager and Digital Editor;

11. to assist the Executive Director, as much as possible, with the electronic operations of the Executive Office;
12. to acquire and maintain familiarity with the electronic activities of Canadian and other scientific societies, including the American Mathematical Society (AMS), the Mathematical Association of America (MAA), the Society for Industrial and Applied Mathematics (SIAM) and the Association for Computing Machinery (ACM);
13. to coordinate the operation, maintenance, security and organization of existing desk-top computers and servers;
14. to review and make decisions concerning the acquisition or development of new resources;
15. to acquire and maintain familiarity with technological developments including relocatable links, MathML, e-commerce and electronic publishing, that could impact the CMS, and delegate to the Camel Manager or Digital Editor, as appropriate, specific responsibility for learning more about particular subjects;
16. to report formally to the Electronic Services Committee on a semi-annual basis;
17. to respond in a timely manner to inquiries and concerns about matters related to CMS electronic products and services;
18. to be the visible face of the Society's web site, with responsibility for addressing concerns and answering questions about matters related to CMS electronic products and services.

4.2 Camel Manager

The Camel Manager is appointed on a paid full-time (at least 75% part-time) basis by the Executive Director on the recommendation of the Director after endorsement by the Electronic Services Committee. An initial appointment is for three years with the possibility of negotiated three to five year renewals thereafter.

The Camel Manager reports to the Director of Electronic Products and Services. While the day-to-day Camel operation is directed and controlled by the Camel Manager, who operates independently of the Director, it is expected that the Camel Manager will report regularly to the Director and consult on matters of policy, especially where variations are contemplated or recommended. Specific duties include

1. submission to the Director of an annual budget, including a three-year forecast, for the maintenance and development of the CMS web site;
2. the day-to-day operation of Camel, which is the web site of the Canadian Mathematical Society;

3. ensuring that the development and policies related to Camel are consistent with the declared functions and priorities of the CMS web site;
4. hiring and training of full- and part-time staff to work on the Camel site;
5. establishing and reviewing job descriptions of Camel staff;
6. annual performance reviews of Camel staff;
7. hardware and software maintenance and upgrades within budget;
8. reporting possible budget overruns to the Director at the earliest possible date;
9. remedying hardware/software failures as quickly as possible;
10. responding to requests for domain access and secondary DNS services;
11. communicating minor on-site policy decisions to the Director on a regular basis;
12. maintenance of email services, including
 - email lists for the Board, Executive, committees and editorial boards;
 - wider lists such as cmath-l and cmath-d;
 - email aliases for committee chairs and other CMS functionaries;
 - an email system which receives and distributes mail for the above.
13. prompt up-dating of on-line lists of journal editorial boards and information for authors, upon direction from the Society's Managing Editor;
14. maintaining and keeping up-to-date an on-line version of the CMS publications catalogue;
15. ensuring that web pages are up-to-date, old pages are removed and that links work;
16. facilitating the implementation and supporting the maintenance of Camel areas for which external bodies are responsible, such as KaBoL and the Women in Math pages;
17. assisting the student web master with the organization and development of the student pages on Camel;
18. to provide advice to the Executive Office concerning hardware and software, to assist in configuration, trouble-shooting and the setting up of internal servers, and generally to support the Executive Office, as resources permit;
19. keeping informed of technological developments which could impact the CMS, including e-commerce;
20. proposing to the Director for special funding developmental projects of possible benefit or relevance to the CMS.

4.3 Digital Editor

The Digital Editor is appointed on a paid part-time (at most 25%) basis by the Executive Director upon the recommendation of the Director after endorsement by the Electronic Services and Publications Committees. An initial appointment is for three years with the possibility of negotiated three to five year renewals thereafter.

The Digital Editor reports to the Director of Electronic Products and Services. While the day-to-day work associated with establishing, maintaining and developing CMS publications in digital form on the CMS web site is managed directly by the Digital Editor, it is expected that the Digital Editor will report regularly to the Director and to the Publications Committee and consult on matters of policy, especially where variations to established procedures are contemplated or recommended. Specific duties include

1. submission to the Director of an annual budget, including a three-year forecast, for the delivery and development of CMS journals, books and other publications in digital format;
2. ensuring that the Society's on-line publications are mounted on Camel in a timely fashion;
3. the day-to-day operations of the office of Digital Editor;
4. hiring and training of full- and part-time staff to work in the Digital Editor's office;
5. establishing and reviewing job descriptions of people who work in the Digital Editor's office;
6. annual performance reviews of staff in the Digital Editor's office;
7. any hardware and software maintenance and upgrades which can be accommodated from within the approved annual budget;
8. remedying hardware/software failures as quickly as possible;
9. reporting possible budget overruns to the Director at the earliest possible date;
10. prompt email notification of the release of each issue of a CMS periodical, via CMath-L, for instance;
11. keeping informed of technological developments which could impact the CMS, especially those relating to electronic publications;
12. proposing improvements to the on-line versions of CMS publications;
13. proposing to the Director for special funding development projects of possible benefit or relevance to the CMS.

5 Electronic Services Committee

5.1 Membership

- six members, one of whom is chair and one of whom is either chair-elect or past-chair;
- CMS President or delegate.

The Director of Electronic Products and Services and the Executive Director of the Society are consultants to the Committee and expected to attend meetings and deliver reports.

All members of the Society and other interested parties are welcome to attend ESC meetings, in whole or in part, as observers, at the discretion of the ESC Chair.

5.2 Terms of Office

Consistent with CMS policy with respect to standing committees, members are appointed for three year staggered terms. After a one year term as “chair-elect”, a chair serves for two years and then one more as “past-chair”. The normal end of term for all members is December 31.

5.3 General Function

The function of the Electronic Services Committee of the Canadian Mathematical Society is to oversee, in accordance with the policies determined by the CMS Board of Directors, the electronic products and services offered by the Society, to serve as an advisory board to the Director of Electronic Products and Services, to be a forum for discussion of technological issues and to take an active interest in new developments in electronic products and services which concern mathematics and/or the Society.

5.4 Specific Duties and Responsibilities

1. to recommend to the Board of Directors via the Executive Committee the appointment of the Director of Electronic Products and Services;
2. to review annually the performance of the Director;
3. to endorse and forward to the Executive Director, the appointments of the Camel Manager and Digital Editor;
4. to prepare an annual committee budget;
5. to maintain and keep current a job description of the Director of Electronic Products and Services;
6. to recommend to the Director changes in policy concerning electronic products and services;

7. to advise the Director on policy matters;
8. to submit to the Board of Directors for their approval all significant proposed changes in policy concerning the Society's electronic offerings;
9. to monitor the appearance and content of the CMS web site and recommend changes or additions to the Director;
10. to encourage and facilitate interaction between CMS electronic services and CMS committees and the areas they represent;
11. to review annually the functions and priorities of the CMS web site and the administrative structures which govern the operation of CMS electronic services.

5.5 Modus Operandi

Throughout the year, most committee business is conducted by email, although conference calls can be very effective and are encouraged, especially when there are matters of particular controversy or new initiatives to be considered.

The committee meets in person semi-annually in conjunction with the Summer and Winter meetings of the Canadian Mathematical Society. At least four weeks prior to such meetings, that is, in sufficient time to permit follow-up, the committee meets via conference call to discuss the agenda and/or other items of current concern.

5.6 Authority of the Chair

Given the volunteer nature of the Society, it is important that there be a clearly understood mechanism for making decisions when members are unavailable for whatever reason.

Messages from the Chair will normally specify a deadline for the receipt of responses, usually at least five working days from the date a message is sent. After this deadline, the Chair shall take whatever decision(s) he/she deems appropriate based upon those responses received. Any committee member who feels that circumstances demand an extension of the deadline may appeal to the Chair. Normally, reasonable extensions will be granted.

Appendix

Functions and Priorities of Camel, the CMS Web Site

A-1 Guiding Principles

The Canadian Mathematical Society supports the delivery and development of electronic services in order, first and foremost, to promote mathematics. Additional responsibilities include

1. representing and supporting a mathematical community with common and diverse interests;
2. recognizing and serving the needs of distinct groups within that community such as researchers, educators, students, and those seeking employment;
3. fostering the growth of under-represented groups in mathematics, including women;
4. promoting the interests and activities of the CMS;
5. giving the CMS a presence in the world of digital publishing;
6. facilitating communications between CMS members, between researchers and educators and students, and between the Society and the mathematics community;
7. identifying and pursuing constructive association and collaboration with other academic, industrial and educational groups at all levels;
8. exploring and pursuing avenues of revenue generation for the Society;
9. assisting the Executive Office.

A-2 Specific Functions

The CMS maintains a web site in order to serve the mathematical community by providing up-to-date and easily accessible information on many items, as specified below. Items relating to the Executive Office, Scientific Meetings and Publications have the highest priority. Items under “Activities of the Society” are next in priority followed by those designated “General”.

A-2.1 Executive Office

1. to post CMS policies and decisions;
2. to post bylaws and terms of reference for the CMS Board of Directors, committees, offices and employees;

3. to post CMS position papers and reports;
4. to post commonly used administrative forms for easy access by committee and board members;
5. to post media releases;
6. to post calls for nomination and announcements concerning CMS prizes;
7. to post announcements and application deadlines concerning grants from the CMS Endowment Fund and to permit application for such grants electronically;
8. to maintain and keep current lists of the CMS Executive, Board of Directors, standing and ad hoc committees and task forces;
9. to maintain email lists, for individuals and groups such as cmath-l and cmath-d, and to ensure email aliases for CMS functionaries are up-to-date;
10. to archive minutes of CMS business meetings;
11. to maintain a database of information concerning CMS members in a form which makes searching and changing simple;
12. to permit membership application and renewal on-line with secure credit card encryption;
13. to assist fund raising.

A-2.2 Scientific Meetings

1. to publicize and promote Canadian meetings in the mathematical sciences including the semi-annual meetings of the Society;
2. to develop and keep current a web site for CMS scientific meetings, if necessary;
3. to maintain a list of sites and dates of CMS semi-annual meetings as far into the future as possible;
4. to create highly visible links to the web sites of Canadian meetings in the mathematical sciences;
5. to ensure that web sites of scientific meetings hosted by Camel are kept up-to-date;
6. to provide electronic submission of abstracts for CMS meetings;
7. to post the abstracts of speakers at CMS meetings;
8. to post a printable version of CMS meeting registration and hotel reservation forms;
9. to provide for on-line CMS meeting registration and, where possible, on-line hotel registration as well.

A-2.3 Publications

1. to support the on-line publication of CMS journals and books;
2. to provide the CMS publications catalogue on-line;
3. to support Digital After*Math;
4. to respond efficiently to requests of the editors of CMS journals in matters relating to electronic versions of the journals they represent;
5. to permit subscriptions and/or purchase of CMS journals, books and other materials on-line with secure credit card encryption;
6. to make available information of interest to authors of mathematics, including links to sources of help.

A-2.4 Activities of the Society

1. to publicize and promote the research activities of the CMS;
2. to publicize and promote CMS educational activities, including KaBol, the Canadian Undergraduate Math Conference (CUMC), the Canadian Open Mathematics Challenge (COMC), the Canadian Mathematical Olympiad (CMO), the International Mathematical Olympiad (IMO), the Mathematical Olympiads Correspondence Programme (MOCP) and Math Camps;
3. in conjunction with the student web master, to publicize and promote student activities of the CMS;
4. to publicize CMS educational and research grants, prizes and awards and their recipients;
5. to make available on-line mathematics promotional material of all kinds, including information which would benefit individuals wishing to give talks to high school audiences or to the general public, to organizers of math in the mall or science fair activities or to others wishing to promote mathematics in their region.

A-2.5 General

1. to provide links to the web sites of Canadian college and university departments and to institutes in the mathematical sciences;
2. to provide links to the web sites of organizations in the mathematical sciences throughout Canada and the world;
3. to facilitate the development of and to provide continuing support for special initiatives relating to electronic services, such as Women in Math pages;

4. to publicize and promote student activities, both graduate and undergraduate, of the Canadian Mathematical Society;
5. to provide access and links to mathematical information services such as EMIS (the European Mathematical Information Service);
6. to provide details of funding opportunities for mathematicians and for mathematics educators, including links to NSERC, MITACS and provincial government programmes;
7. to maintain a current list of career opportunities.

Submitted by Edgar Goodaire, Chair, on behalf of the Electronic Services Committee:

François Bergeron
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