

The NEWSLETTER is a publication of the Canadian Mathematics Education Study Group

CMESG is a group of mathematicians and mathematics educators who meet annually to discuss mathematics education issues at all levels of learning. The aims of the Study Group are:

- 1) to study the theories and practices of the teaching of mathematics
- 2) to promote research in mathematics education
- 3) to exchange ideas and information about all aspects of mathematics education in Canada
- 4) to disseminate the results of its work.

Ce BULLETIN est une publication du Groupe canadien d'étude en didactique des mathématiques

Le GCEDM est composé de personnes œuvrant en mathématiques et en didactique des mathématiques et qui se réunissent une fois par année pour étudier diverses questions relatives à l'enseignement des mathématiques à tous les niveaux. Les buts du Groupe sont les suivants:

- 1) susciter une réflexion critique sur la théorie et la pratique de l'enseignement des mathématiques
- 2) encourager la recherche en didactique des mathématiques
- 3) faciliter l'échange d'idées et d'information sur tous les aspects de l'éducation mathématique au Canada
- 4) faire connaître les résultats de ses travaux.

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PRESIDENT'S MESSAGE DU PRÉSIDENT

Olive Chapman

Our 41st Annual Meeting at McGill University, in Montreal, is rapidly approaching on June 2 – 6, 2017. After our elaborate special 40th anniversary meeting, with a unique program to celebrate our history and provide inspiration for the future, this year we return to our regular program structure of two invited plenaries, separate sessions for small-group discussion of the plenaries, questions and answers with the plenary speakers, an elder talk, one plenary panel, and a topic session. Other aspects of the program (working groups, new PhDs, gallery walk, and ad hoc discussion) remain the same. Thanks to our colleagues who accepted the invitations of the CMESG executive to be working group leaders, topic session presenters and plenary panelists and to our hosts (Annie Savard and Limin Jao) for their thoughtful planning of the social activities. I encourage participants of the meeting to share their work in the Gallery Walk.

Congratulations to Ami Mamolo, our past Newsletter editor, on the birth of her gorgeous daughter, April Simone Mamolo Banting, in November 2016.

As a reminder, you are always invited to share comments and concerns and make suggestions regarding speakers and working group topics via any member of the executive for us to

address.

I look forward to seeing many of you in Montreal!

Notre 41^{ième} rencontre annuelle à l'Université McGill, Montréal, arrive à grand pas -- du 2 au 6 juin 2017. Après notre rencontre spéciale de l'an dernier pour le 40^{ième} anniversaire et son programme unique élaboré pour célébrer notre histoire et inspirer le futur, nous revenons cette année à la structure habituelle avec deux conférences plénières suivies par des groupes de discussion sur le contenu des conférences plénières ainsi qu'une session questions/réponses avec les conférenciers, une conférence « la parole aux anciens », une table ronde et une session de séances thématiques. Les autres éléments du programme (les groupes de travail, les présentations des nouvelles thèses, la galerie mathématique et les discussions ad hoc) restent les mêmes. Merci à nos collègues qui ont accepté l'invitation des membres de l'exécutif du GCEDM à être responsables de groupes de travail, à présenter dans les séances thématiques, à participer à notre table ronde. Merci également à nos hôtes (Annie Savard et Limin Jao) pour leur planification des activités sociales. J'encourage les participants à la rencontre à partager leur travail à la galerie mathématique.

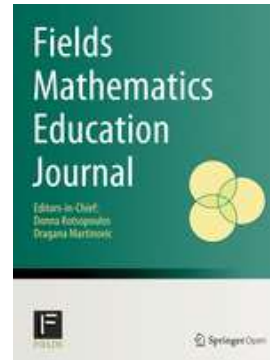
Félicitations à Ami Mamolo, notre ancienne editrice du Bulletin, pour la naissance de sa magnifique fille, April Simone Mamolo Banting, en novembre 2016.

Je vous rappelle également que vous êtes toujours les bienvenus à partager vos commentaires, préoccupations et suggestions quant aux conférenciers et aux thèmes retenus pour les groupes de travail.

J'ai hâte de vous voir nombreux à Montréal!

NOTICES / AVIS

CO-EDITOR-IN-CHIEF, FIELDS MATHEMATICS EDUCATION JOURNAL



Fields Mathematics Education Journal (Springer) is inviting expressions of interest to assume the role of Co-Editor-in-Chief for a term of three years beginning June 1, 2017. Candidates from across the disciplines of mathematics education, mathematics, and psychology are invited to

contact either Donna Kotsopoulos (dkotsopo@huron.uwo.ca) or Dragana Martinovic (dragana@uwindsor.ca) for more details or to express interest.

June 2nd - June 6th, 2017

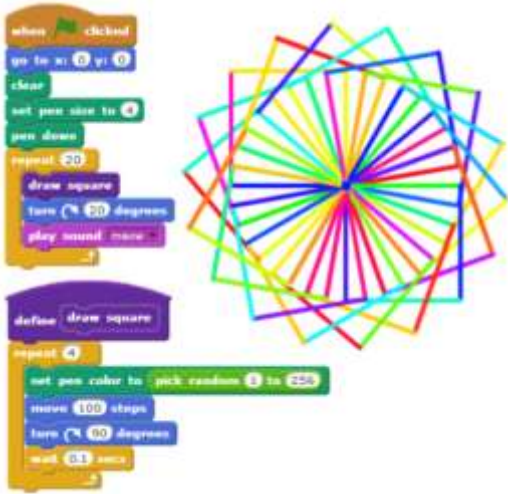
CANADIAN MATHEMATICS EDUCATION STUDY GROUP 41TH ANNUAL MEETING



Oct. 13th - Oct. 15th, 2017

COMPUTATIONAL THINKING IN MATHEMATICS EDUCATION

University of Ontario Institute of Technology



For more information see:

<http://ctmath.ca/uncategorized/symposium-on-computational-thinking-in-mathematics-education/>

<http://www.fields.utoronto.ca/activities/17-18/computational-thinking>

MEMBERS' ACTIVITIES / ACTIVITÉS DES MEMBERS

Luis Radford

Université Laurentienne, Ontario, Canada

Review:

Mathematics Education Across Time & Place. Over Two Millennia from Athens to Zimbabwe, by Thomas O'Shea. Victoria, Canada: FriesenPress, 2016.

Several years ago, Canadian educator Ted Aoki complained about the technological turn that education had taken since the dawn of the 20th century. Indeed, by then, several countries in Europe, North America, Eurasia and other parts of the world were moving quickly towards systematic and complex industrial forms of production. Such a colossal task required to rethink their educational systems. "Reform" was the name under which the curricular changes were conducted. Within this technologically oriented frame of mind, mathematics in those countries (and others that followed later) came to occupy an unprecedented place in the curriculum, often stealing school hours that so far were allocated to other disciplines. In 1914, the mathematician Gaston Darboux,

president of the Academy of Science of France, in a speech addressed to the participants of an international conference on the teaching of mathematics, told his audience that teachers of literature were complaining that "Mathematics has become something very invasive" (Darboux, 1914, p. 193). And with this invasion came not only the problem of *what* to teach, but also *how* to teach it. It is at this precise moment that Ted Aoki's complaint becomes relevant, as Aoki was among those who first understood with great clarity, and challenged forcefully, the educational orientations that ended up shaping the school of today in the manner of an industry and a consumerist business "that reduces human competence to instrumental reason and instrumental action" (Kaori in Pinar & Irwin, 2005, p. 113). Any foreseeable change can come only from a deep and daring collective reflection on mathematics, and its place and orientation in our schools. Certainly, such a reflection has to be carried out at different levels. We need to make teachers, prospective teachers, and other educational actors sensitive to the cultural, historical, political, and economic ideas underpinning contemporary education in general and mathematics education in particular. We need to reach deeper levels of social consciousness to envision mathematics education differently and to transform it in practice.

Thomas O'Shea's book *Mathematics Education Across Time & Place* is a most welcome contribution to this endeavour. Indeed, in order to envision mathematics education differently, we need to become aware of how mathematics education was practised before, in other contexts, and to understand how and why we have ended up where we are today. Without such a historical understanding no real grasp of reality seems possible. O'Shea's book puts us on the right track. "The purpose of this book," O'Shea notes, "is to help mathematics teachers, teacher educators, and interested members of the public appreciate the path that we have followed to the present state of mathematics education" (p. xx1). In the Preface, O'Shea mentions briefly his own trajectory, from Saskatchewan to Montreal to Australia to Malaysia to British Columbia. At Simon Fraser University, O'Shea had the opportunity to work with our late colleague Sandy Dawson, one of the most impressive mathematics educators I have had the chance to meet, and Len Berggren, a leading scholar in the history of Arabic

Mathematics. The book *Mathematics Education Across Time & Place* is a result of the course *Foundations of Mathematics Education* that O'Shea designed, a task that was not accomplished without difficulties. As O'Shea notes,

As I designed the course, I recognized that students tend to think about mathematics education only in the day-to-day context in which they themselves are immersed. Much of what passes for professional development consists of struggles to contend with changes in the prescribed curriculum or with the most recent fashion in teaching. Little time is spent on trying to understand larger societal, political, and educational forces that affect the curriculum and may help teachers to respond thoughtfully to the question posed by students,

“Why do we have to learn this stuff? I wished to devise some means to free them from the present and immerse them in a different time and place (O'Shea, 2016, p. xvi-xvii)

To achieve this goal O'Shea devised an assignment: he asked his students to assume that they were mathematics educators at a certain point in history, and to prepare a mini-autobiography that should convey a sense of what life was like at the chosen historical time. In the autobiography, the students were invited to describe the societal conditions under which they taught, their approach to teaching, the students, and the mathematical content that they taught. They were free to investigate a real historical individual or to invent a fictional character. The assignment gave the students the opportunity to plunge into a different historical epoch, a different country with different needs, different people, and different conceptions of education. In brief, the assignment gave the students the opportunity to make the marvelous experience of alterity—the encounter of the Other—the first and unavoidably step towards the encounter with ourselves.

The book presents a compilation organized by time and place of what the students produced: stories told as “straight autobiographies, as diaries, as letters to their grandchildren, as fragments of text found in an attic, and as poetry” (p. xvii). The chapters include Greece and Rome, Islam and its influence, the Italian Renaissance 16th and 15th century mathematical practitioners of England, the French revolution, early America, Canada, and the 20th century. The students'

narratives are supported by an historical investigation of education and its cultural context. The Reference Section at the end of the book lists the historical sources and is certainly very valuable to those interested in the history of education, mathematics, and mathematics education. To give an example of the narratives, one of the sections of Chapter 3 (The Italian Renaissance) starts with an introduction of the character: “My name is Vitorio de la Francesca. I was born in Venice, Anno Domini 1614. My father was a wealthy merchant of silk fabrics.” The narrative provides an insightful view of the social, cultural, and intellectual contexts. It allows us to see a society revolving spiritually around the Church and economically around commerce and the emerging Western form of trade and craft capitalism—all tied up by the sense of family and responsibility that was the hallmark of Renaissance culture and its unresolved ethical tension between humanism and the new drive of profit. The narrative also brings forward the increasing social role of books that was to play such an essential role in the historical consolidation of the written tradition—one that left an indelible and profound imprint on Western thought: “My father was a passionate lover of books and he would always bring chests full of books from his travel to the East” (p. 97). The narrative brings back to life, in a fascinating and vivid manner, the historical opposition between those who defended the use of Roman numerals and those who introduced the Arabic-Hindu numeric system, placing numbers and mathematical practices in their social and cultural contexts.

The book *Mathematics Education Across Time & Place* is undoubtedly a great contribution to mathematics education. It invites us to see our discipline through historical lenses and enables us to imagine new ways to start moving beyond the technocratic stance in which we find ourselves currently immersed. The book will certainly be of interest to mathematicians, mathematics educators, teachers, and educators in general.

References:

Darboux, G. (1914). Discours à la réunion d'ouverture de la conférence internationale de l'enseignement mathématique. L'Enseignement

Mathématique, 16, 192-197.

Pinar, W. F., & Irwin, R. L. (Eds.) (2005).
Curriculum in a new key: The collected works of
Ted T. Aoki. Mahwah: Lawrence Erlbaum
Associates.

NEWS FROM THE EXECUTIVE / DES NOUVELLES DE L'EXÉCUTIF

Report of the Nominations / Elections Committee 2017

Regular members were invited to participate in the election for the CMESG Executive. 84 of the regular members voted, with the following results:

CMESG Executive:

- Manon LeBlanc, treasurer of CMESG/GCEDM, 2017-2019
- Lisa Lunney Borden, member of the executive of CMESG/GCEDM, 2017-2019

Congratulations to the newly elected CMESG Executive members. Sincere thanks to those members who let their names stand for election. Our organization was very fortunate to have a strong list of nominees for the elections.

The members of the CMESG/GCEDM and FLM Nominations & Election Committee are Lucie DeBlois, Chair, (lucie.deblois@fse.ulaval.ca) and David Reid (dreid@uni-bremen.de).

Rapport des nominations et élections du comité 2017

Merci pour votre participation à notre récente élection des membres de l'exécutif du GCEDM. Nous sommes heureux d'annoncer les résultats.

Exécutif du GCEDM :

- Manon LeBlanc, trésorière de CMESG/GCEDM, 2017-2019
- Lisa Lunney Borden, membre du comité exécutif du CMESG/GCEDM, 2017-2019

Félicitations aux nouvelles élues sur le comité exécutif. Merci à tous ceux qui ont accepté de soumettre leurs noms pour l'élection. Notre

organisation est très chanceuse d'avoir une longue liste de nominations pour les élections.

Les membres du comité des nominations et des élections du CMESG/GCEDM sont Lucie DeBlois (lucie.deblois@fse.ulaval.ca) et David Reid (dreid@uni-bremen.de).

REQUEST FROM THE EDITOR/ DEMANDE DE LA RÉDACTRICE EN CHEF

I am always inspired and excited to hear about the math camps that members of the CMESG community, and others, are organizing across Canada. In the December issue of the CMESG newsletter I would like to highlight some of these great camps.

If you are an organizer of a math camp and would like to see your camp featured in the next issue, please send me an email at: crozins@berkeley.edu

Je suis toujours inspirée et enthousiaste d'entendre parler à propos des camps de mathématiques que les membres de la communauté de GCEDM, et d'autres, organisent tout autour du Canada. Dans l'édition de décembre du bulletin de GCEDM, j'aimerais mettre en valeur quelques uns de ces camps excellents.

Si vous êtes un organisateur ou une organisatrice d'un camp de mathématiques et que vous aimeriez voir votre camp présenté dans la prochaine édition, envoyez-moi s'il-vous-plait un courriel à: crozins@berkeley.edu

CMESG EXECUTIVE / L'EXÉCUTIF DU GCEDM

The members of the executive extend an invitation to you to contact us about any item of interest. If you have something you want to suggest, if you have a concern you wish to raise, if you want more information, etc., please let one of us know. In order to be of service to the membership, we need to be aware of what your interests are.

Les membres du Comité exécutif vous invitent à leur faire part de votre point de vue concernant n'importe quel aspect de la vie du GCEDM. Que ce soit pour transmettre suggestions ou commentaires, ou encore pour être mieux informé, n'hésitez pas à entrer en contact avec l'un d'entre nous. En nous faisant connaître vos intérêts, vous nous aidez à mieux vous servir.

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