Juin 2023

Canadian Mathematical Society
Société mathématique du Canada

(Vol. 55, No. 3)

CMS NOTES de la SMC

DANS CE NUMÉRO

PG

Dons planifiés

Article de couverture

David Pike (Memorial University), *Président, SMC*

Je commence cet article par un sujet qui me fait terriblement mal. En 2019, j'ai perdu mon père tragiquement et en 2022, ma mère est décédée après avoir souffert de la démence et du COVID. Ces dernières années ont été marquées par des crises et des traumatismes pour moi et pour ma famille. Pour vous dire la vérité, il était une lutte pour nous de faire face à ces deuils.

De plus, j'ai dû assumer le rôle d'exécuteur testamentaire de mes parents et cela m'a beaucoup appris sur l'homologation, les successions et les implications fiscales qui suivent la mort. J'aimerais partager ces nouvelles connaissances avec vous ici et ce faisant j'espère vous encourager à inclure la SMC dans votre planification successorale et dans vos dons testamentaires. Notez, toutefois, que je ne suis ni avocat ni conseiller financier; les paragraphes qui suivent ne doivent donc pas être considérés comme avis professionnel.

L'une des premières choses que j'ai apprises à la suite du décès de mon père est que les biens communs, tel que des comptes chèques conjoints ou des biens immobiliers détenus en copropriété sont facilement transférés au(x) copropriétaire(s) survivant(s) au décès de l'un des copropriétaires. D'autres actifs ne sont pas traités de la même manière et ils peuvent ou non être inclus dans la succession d'une personne en fonction de divers facteurs.

Bon nombre d'entre nous ont des investissements personnels en forme des comptes REER, FERR et CELI. Les institutions financières permettent à leurs clients de désigner des bénéficiaires pour ces types de comptes « enregistrés », un peu comme nous désignons des bénéficiaires pour des régimes d'assurance-vie à laquelle plusieurs entre nous sont également inscrits (souvent via l'assurance-emploi). Nous sommes tenus de désigner nos bénéficiaires quand nous créons de tels comptes ou quand nous nous inscrivons à un système d'assurance-vie et, bien évidemment, nous pouvons mettre à jour les noms de nos bénéficiaires à tout moment. D'ailleurs, il est recommandé d'effectuer ces mises à jour au fur et à mesure que nos circonstances personnelles changent. À titre d'exemple, quand j'ai créé certains de mes comptes il y a bien des années, j'ai probablement désigné mes parents comme bénéficiaires. Si je décide de mettre à jour les noms de mes bénéficiaires aujourd'hui de sorte que 99% de mon compte CELI soit transféré à mes frères et sœurs et 1% à la SMC, à mon décès, la banque qui détient mon compte CELI répartira les avoirs selon ces nouvelles directives. Lorsque le bénéficiaire est un conjoint survivant, la banque peut transférer l'argent hérité directement à un compte enregistré du même type que le compte source. C'est surtout pratique pour les comptes REER ou FERR, sinon le solde serait compté un revenu imposable gagné par le défunt juste avant son décès.

Un autre avantage de désigner des bénéficiaires pour l'assurance-vie et les comptes enregistrés est que l'argent correspondant ne sera pas compté dans le patrimoine du défunt et donc il ne sera pas soumis aux frais d'homologations provinciaux. Or, en l'absence d'un bénéficiaire survivant, l'argent sera inclus dans la succession et soumis aux frais d'homologation. Les frais d'homologation sont l'équivalent d'un impôt qui déduit un pourcentage de la valeur de la succession du défunt. Ces frais s'appliquent lorsqu'un individu demande d'être nommé comme exécuteur testamentaire et fiduciaire d'une succession. De plus, le règlement d'une succession est un processus long qui pourrait durer des années. Pendant ce temps, les actifs de la succession pourraient être bloqués par l'institution financière associée. En désignant des bénéficiaires pour les comptes enregistrés, non seulement ces comptes échappent aux frais d'homologation, mais les fonds pourraient aussi être distribués plus tôt que les fonds qui font partie de la succession du défunt.

Dans le cas où le défunt a déjà un testament, celui-ci précise normalement ce que l'exécuteur doit faire avec la succession. C'est une pratique courante de prévoir des legs dans le testament. Notez que les legs aux organismes de bienfaisance enregistrés sont considérés comme les dons de charité faits par la succession du défunt, ce qui est un changement récent dans les politiques d'impôt. Pour les décès antérieurs à 2016, l'ARC considère les dons décrits dans le testament comme les dons faits par le défunt juste avant son décès. Pour les décès depuis 2016, les dons testamentaires sont traités comme les dons faits par la succession. Ces dons sont donc déclarés dans la déclaration de revenus de la succession, à condition que le crédit d'impôt correspondant puisse être appliqué à la déclaration de revenus de l'année du décès du défunt (ex. le "déclaration finale » du défunt). Certes, cela implique deux déclarations de revenus : celle de l'individu décédé jusqu'à la date de son décès, et celle de la succession depuis le moment du décès. Cela pourrait paraître compliqué, mais je veux insister que les dons inclus dans le testament pourraient contrebalancer le revenu déclaré dans la dernière déclaration de revenus de l'individu décédé et cela est important parce que la dernière déclaration du défunt pourrait inclure une large quantité de revenus non anticipés.

Par exemple, j'ai déjà mentionné que les comptes REER et FERR qui ne sont pas transférés à un conjoint survivant (en ayant préalablement communiqué à la banque que le conjoint est désigné comme bénéficiaire) sont rachetés en totalité et traités comme le revenu différé. Or, l'objectif initial était probablement de répartir le revenu différé sur plusieurs années plutôt que de le recevoir dans son entièreté en une seule fois.

De plus, lorsqu'un individu décède, l'ARC considère que ce dernier a disposé de ses actifs immédiatement avant son décès. Cela pourrait potentiellement générer des gains en capital importants. Certaines exemptions existent pour les actions et les titres qui sont donnés aux organismes de bienfaisance. Il existe aussi des exemptions pour le domicile du défunt. Mais les gains en capital de tout autre bien immobilier qui n'est pas détenu en copropriété doivent être évalués même si la propriété est léguée à des membres de la famille sans être vendue.

Étant donné que ces diverses sources de revenus réels et présumés peuvent générer une hausse importante du revenu imposable dans la déclaration de revenus finale du défunt, et qu'elles pourraient potentiellement le placer dans une tranche d'imposition plus élevée, les déductions caritatives pourraient contrebalancer le revenu et réduire le montant de l'impôt à payer. Sur ce, je vous encourage à examiner votre situation, à réfléchissez à l'héritage que vous souhaiter léguer, à formaliser vos souhaits dans votre testament, et à désignant votre bénéficiaire dans votre compte enregistré bancaire.

Préparer un testament facilite aussi la tâche de quiconque doit administrer votre succession (je peux en témoigner en tant qu'exécuteur testamentaire de mes parents). Si vous n'avez pas encore préparé votre testament, je vous recommande fortement de le faire. Si vous avez déjà un testament, et vous souhaitez y ajouter un don testamentaire à la SMC ou à un autre destinataire, vous avez deux options. Vous pouvez rédiger un nouveau testament. Ou bien vous pouvez préparer un codicille, ce qui est essentiellement un addendum à un testament existant (pour voir l'exemple d'un codicille,).

Je vous rappelle que la SMC est un organisme de bienfaisance enregistré qui dépend des dons pour poursuivre sa mission. J'invite les membres de la SMC à se joindre à moi pour inclure la Société dans nos plans de succession et de prévoir un don testamentaire à la SMC. Parmi de nombreuses activités importantes soutenues par des dons figurent : les camps mathématiques, offrant à des jeunes des expériences enrichissantes et les exposant aux mathématiques; les camps d'entraînement pour les élèves qui s'apprêtent à représenter le Canada à l'Olympiade internationale de mathématiques et aux Olympiades européennes de mathématiques pour filles; les concours organisés annuellement par la SMC pour les élèves du primaire et du secondaire; le Congrès canadien des étudiant.e.s en mathématique, ainsi que les activités qui se déroulent dans le cadre de nos réunions semi-annuelles. Il y a aussi des coûts opérationnels associés à l'entretien de l'édifice patrimonial acheté en 2022 et qui loge le bureau de la Société à Ottawa.

J'espère qu'on pourrait développer, collectivement, une culture de générosité au sein de laquelle nous sommes rassurés de nos contributions à la poursuite et à la célébration des mathématiques à travers nos directives finales. Cela dit, les dons annuels à la SMC de notre vivant sont tout aussi appréciés!

La SMC est enregistrée en tant qu'organisation caritative sous le numéro 118833979 RR 0001. Pour plus d'informations sur comment faire un don, veuillez visiter notre site Web.

Frivolité du plan de cours

Éditorial

Robert Dawson *Rédacteur, Notes*

Il y a cette anecdote d'un empereur dont la femme meurt. Le cœur brisé par le deuil, il exigea qu'on lui construise le plus grand tombeau imaginable, un monument qui éclipserait le Taj Mahal dans son opulence de marbre, de calcédoine et d'or. Pendant des années, le cadavre de l'impératrice reposa dans un cercueil noir, comme il en était coutume à l'époque, tandis que les maçons et les doreurs travaillaient avec ardeur. La construction de l'édifice n'acheva qu'après la mort de l'empereur et il était tout aussi grandiose que les architectes l'avaient envisagé. Seul le cercueil noir nuisit à sa splendeur. Ainsi, selon la légende, le nouvel empereur fit enlever le cercueil.

Depuis quelque temps, l'une de mes tâches départementales a été d'évaluer les cours des autres universités pour déterminer comment ils correspondent aux nôtres pour que le bureau du registraire puisse transférer les crédits des cours complétés dans une autre université. Lorsque j'ai commencé, je me servais du calendrier des cours des autres universités, soit par un lien Web soit via une photocopie que quelqu'un aurait envoyée par courriel. Ce document contenait la description officielle des cours et nous apprenait sur le cours et sur les connaissances des étudiants avant le premier jour de la classe. De temps en temps, on tombait sur une description brève et vague ('des sujets de choix du professeur en théorie moderne des graphes'), dans quel cas, on aurait demandé plus de détail. Le plus souvent, il est suffisant d'obtenir le titre du manuel au programme.

Ces jours-ci, chaque cours vient avec son propre plan de cours. Normalement, le plan de cours présente la liste des sujets qui seront abordés dans le cadre du cours. (Ce qu'on ne peut pas indiquer dans le calendrier vu les contraintes de longueur des descriptions de cours. On aurait pensé que l'avantage du calendrier en ligne sur les calendriers papier d'autres fois serait qu'on pourrait utiliser autant de mots que nécessaire pour décrire un cours, mais évidemment, ce n'est pas le cas). Les professeurs sont ainsi invités (ou tenus) à ajouter un tas d'autres informations.

On y lit d'abord ce que nous écrivions d'habitude sur le tableau au début de la session : le nom du professeur, le titre et le cote du cours, le numéro du bureau, le numéro de téléphone, le courriel, le titre du manuel et les heures de bureau. Jusqu'ici c'est juste. Inclure la répartition des notes et la date de l'examen de mi-session me semble tout aussi raisonnable. Or dans de nombreuses universités, cela n'est qu'un début. Il y a des listes d'objectifs d'apprentissage, ce qui n'est pas mauvais en soi s'ils s'en tiennent aux mathématiques, mais quand (ça arrive parfois) ils s'égarent dans le développement professionnel et spirituel, j'ai l'impression que le document n'est plus un plan de cours. J'ai vu – sans blague – des plans de cours qui prétendent (invraisemblablement) qu'une partie donnée du cours de mathématiques soutiendrait le développement des étudiants en christianisme, en Islam ou en pensée marxiste-léniniste.

De plus, il y a des informations précisant les règlements de l'Université concernant une gamme de sujets, du harcèlement, aux jours de neige et au plagiat. Ne vous méprenez pas, ces règlements sont tous importants; assez important qu'elles soient mises à la disposition des étudiants sur une plateforme quelconque et que ces derniers sachent où les retrouver. Cela devient toutefois préoccupant si les professeurs incluent ces informations dans leurs plans de cours pour que l'administration puisse se débarrasser de son obligation de le faire directement. Les professeurs ne façonnent pas ces règlements; les informations sont pareilles d'un cours à l'autre; et il y a sûrement une meilleure façon d'en informer les gens.

Par conséquent, ces documents sont longs de plusieurs pages avec peu d'informations correspondant aux objectifs d'un plan de cours. Or ils sont devenus les moyens de communication acceptés entre les universités en ce qui concerne le contenu de cours. Le mois dernier, j'ai essayé d'aider un étudiant frénétique à rédiger une demande d'admission à une autre université et on avait de la difficulté à trouver le plan d'un cours donné il y a des années. Le chargé de cours qui avait conceptualisé ce plan de cours n'enseigne plus à notre institution; et le calendrier des cours, quoiqu'assez clair et élaboré, n'était pas adéquat selon les critères de cette autre université parce qu'il n'était pas un plan de cours officiel. Je pense qu'on a fini par trouver une copie dans nos dossiers.

Cela a atteint son comble d'absurdité récemment quand on m'a demandé d'évaluer l'équivalence de crédits d'un cours offert dans une université canadienne très réputée. Le plan de cours (ou le document que prétendait l'être) comptait 8 pages: assez long qu'il a mérité sa propre table des matières. Il abordait toute sorte de sujets, du manuel du cours aux règlements concernant le port du masque. Il manquait seulement le contenu du cours pour lequel le lecteur était renvoyé à une page web de l'université à laquelle, en tant qu'étranger, l'accès m'a été refusé. L'impératrice avait quitté l'édifice.

Et alors, j'ai obtenu les informations nécessaires du calendrier des cours.

When Organizational Histories, Anniversaries, and Women in STEM Intersect

CSHPM Notes

Amy Ackerberg-Hastings (MAA Convergence)

CSHPM Notes bring scholarly work on the history and philosophy of mathematics to the broader mathematics community. Authors are members of the Canadian Society for History and Philosophy of Mathematics (CSHPM). Comments and suggestions are welcome; they may be directed to either of the column's co-editors.

Amy Ackerberg-Hastings, *Independent Scholar (aackerbe@verizon.net)*
Hardy Grant, *York University [retired] (hardygrant@yahoo.com)*

In general, organizational and corporate histories are not well-regarded forms of historical writing. They are innately prone to pitfalls, since they are often commissioned by the organizations or corporations about whom they will be written, which can mean that the resulting studies are celebratory rather than critical and analytical. The sponsoring institution may choose an author who is not a professionally-trained historian or even look to an insider who may have knowledge not available to a scholar from outside the organization but who may also find themselves wrestling with bias.

Yet there are situations in which organizational histories can be useful to historians, where they provide an available and useful synopsis of how the organization or corporation changed over time. The writers of these histories may have utilized primary sources that are not accessible to the general public, and their bibliographic trails can provide jumping-off points for further scholarship. During the COVID-19 pandemic, as the 50th anniversary of the Association for Women in Mathematics (AWM) approached, I found myself in one of these situations. When I was invited to contribute to AWM's massive commemorative volume [6], I realized that I wanted to look at the society's history against the backdrop of other associations for women in science, technology, engineering, and medicine (STEM) [1]. It was not possible to travel around and look at physical archives, so I dug through websites, collected digitized primary sources when I could, and placed a few targeted Amazon orders. I finished the project thinking that it would be fantastic for a graduate student to do a larger version the "right" way, with actual legwork, but I also think I found evidence that sheds light on AWM's similarities to other major professional societies for women in STEM:

- Graduate Women in Science (GWIS, established in 1921);
- the Society of Woman Geographers (SWG, established in 1925);
- the Society of Women Engineers (SWE, established in 1950);
- Sociologists for Women in Society (SWS, established in 1971);
- the Association for Women in Science (AWIS, established in 1971);
- the Association for Women Geoscientists (AWG, established in 1977); and the Earth Science
- Women's Network (ESWN, established in 2002).

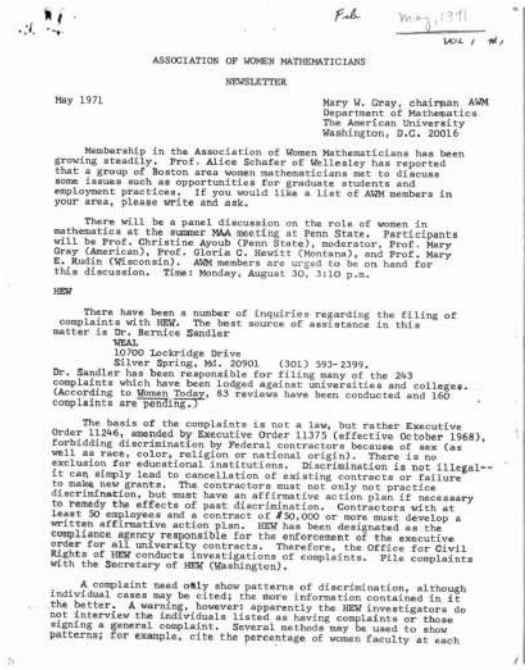
For instance, the need for camaraderie while navigating male spaces was a key motivation for each group's founders. Thus, Graduate Women in Science originated as a sorority house and honor society at Cornell University in 1921 before members shifted their focus to securing funding for graduate students [8; 11; 19, vol. 1, pp. 300–301]. In a retrospective, Margaret Mead noted that the Society of Woman Geographers came together because women were banned from New York City's Explorers Club, and she described how SWG continued to offer a good place for socializing with other professionals [10]. In the late 1960s, the women who would establish AWM met when they were comparing notes about discrimination and their lack of opportunities [7]. Even as late as 2002, the Earth Science Women's Network came about because women wanted to communicate with each other and build mentoring relationships [2].

Some members of the Society of Woman Geographers in June 1932. History of the Society of Woman Geographers.

The new organizations then engaged in a second common characteristic, collective action. For example, in 1971 AWM encouraged members to raise complaints about unequal treatment in their departments, while the Association for Women in Science went so far as to sue the National Institutes of Health to force it to commit to appointing more women to grant-review committees [4; 12]. In 1972 the Society of Women Engineers joined the Federation of Organizations of Professional Women to discuss employment equity; leaders also decided to support the Equal Rights Amendment, although backlash from some members led the Society to draw back from issuing public statements and to concentrate their efforts for the rest of the 1970s and 1980s on conducting surveys that gathered valuable data about the status of women in engineering professions [17].

Third, leaders and members intentionally set out to create professional organizations that would be afforded recognition and legitimacy by existing scientific societies. In addition to graduate training, historians of science and technology typically identify three markers of

professionalization: establishing an academic association, generating publications, and holding conferences. Indeed, these societies generally undertook steps toward official incorporation, such as writing a constitution and by-laws, fairly quickly, although completing the bureaucratic processes may have stretched over several years. Conferences and publications usually came together more rapidly. Largely through the efforts of Mary Gray, AWM sent out advertisements in February 1971 and had a printed newsletter up and running in May [13]. The Society of Women Engineers also began a newsletter in its first year [21]. Sociologists for Women in Society needed twelve months to start their newsletter; by 16 years of existence they had established a formal academic journal, 1987's Gender & Society [16; 18].



ASSOCIATION OF WOMEN MATHEMATICIANS

NEWSLETTER

May 1971

Mary W. Gray, chairman AWM
Department of Mathematics
The American University
Washington, D.C. 20016

Membership in the Association of Women Mathematicians has been growing steadily. Prof. Alice Schafer of Wellesley has reported that a group of Boston area women mathematicians met to discuss some issues such as opportunities for graduate students and employment practices. If you would like a list of AWM members in your area, please write and ask.

There will be a panel discussion on the role of women in mathematics at the summer MAA meeting at Penn State. Participants will be Prof. Christine Ayoub (Penn State), moderator, Prof. Mary Gray (American), Prof. Gloria C. Hewitt (Montana), and Prof. Mary E. Rudin (Wisconsin). AWM members are urged to be on hand for this discussion. Time: Monday, August 30, 3:10 p.m.

HEW

There have been a number of inquiries regarding the filing of complaints with HEW. The best source of assistance in this matter is Dr. Bernice Sandler
WEAL
10700 Lockridge Drive
Silver Spring, Md. 20901 (301) 593-2399.
Dr. Sandler has been responsible for filing many of the 243 complaints which have been lodged against universities and colleges. (According to Women Today, 83 reviews have been conducted and 160 complaints are pending.)

The basis of the complaints is not a law, but rather Executive Order 11246, amended by Executive Order 11375 (effective October 1968), forbidding discrimination by Federal contractors because of sex (as well as race, color, religion or national origin). There is no exclusion for educational institutions. Discrimination is not illegal-- it can simply lead to cancellation of existing contracts or failure to make new grants. The contractors must not only not practice discrimination, but must have an affirmative action plan if necessary to remedy the effects of past discrimination. Contractors with at least 50 employees and a contract of $50,000 or more must develop a written affirmative action plan. HEW has been designated as the compliance agency responsible for the enforcement of the executive order for all university contracts. Therefore, the Office for Civil Rights of HEW conducts investigations of complaints. File complaints with the Secretary of HEW (Washington).

A complaint need only show patterns of discrimination, although individual cases may be cited; the more information contained in it the better. A warning, however: apparently the HEW investigators do not interview the individuals listed as having complaints or those signing a general complaint. Several methods may be used to show patterns; for example, cite the percentage of women faculty at each

The first page of the first issue of the AWM Newsletter. Note the emphasis on activism against employment discrimination. AWM Newsletter Archive.

Similarly, most professional organizations for women in STEM began holding formal conferences nearly immediately. An especially interesting story about this marker of professionalism comes from the Society of Women Engineers. During a conference at Drexel University in 1949, the leaders of several small groups of undergraduate and graduate women engineering students agreed to combine their efforts into what would become SWE. The next year, about 50 women formally established SWE during a two-day camp for engineers at Cooper Union that they completely organized themselves—not only did they conduct all of the business, they also took care of all of the logistics, even cooking and serving the meals. For their first official annual meeting in 1951, they outsourced the more mundane tasks [17].

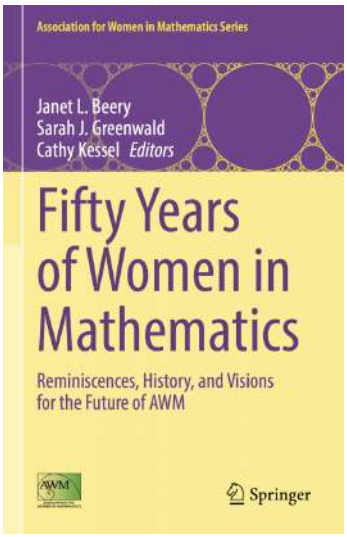
PROGRAM

SATURDAY MAY 27, 1950
10:30 to 12:30 - Registration and assignment of beds
12:30 PM - Welcome to Green Gamp
Dr. Edwin S. Burdell
Director of The Cooper Union
1:00PM - Lunch
2:30 PM - Panel Discussion
"Open Your Own Door to an Engineering Career"
Moderator: Mr. Francis R. Bellamy
Panel Members: Miss Elsie Eaves — Dr. Grace Hopper
Mrs. Miriam Gerla — Mrs. Evelyn Jetter
Mrs. Beatrice Hicks — Mrs. Lillian G. Murad
4:00 PM - Business Meeting. Chairman Miss Phyllis Evans Pres. SWE
6:00 PM - Dinner
7:15 PM - Address by Mrs. Clara Savage Littledale "Being A Woman As Well As An Engineer".
8:00 PM - Address by Prof. Herbert F. Roemmele "The Professional Engineer".
9:00 PM - Games, snacks and songs.
SUNDAY MAY 28
7:30 AM - Breakfast
10:00 AM - Business Meeting
12:30 PM - Lunch
2:00 PM - Tour of Ringwood Manor (10 cents admission)
5:55 PM - Bus leaves for station

A photo and program from SWE's do-it-yourself conference in 1950. SWE Stories, Tales from the Founders' Families.

A final shared attribute, attention to the choice of prepositions, was especially important for the three professional societies formed in 1971. From its beginning, Sociologists **for** Women in Society intentionally chose the word "for" to welcome men as well as women. "In Society" was also significant phrasing, as the group's organizational aims addressed both the profession of sociology ("Sociologists for Women") and wider society ("Women in Society") [16; 18]. (See also [5] for a scholarly analysis of the choice of "in" during this time period.) AWM started out as "Association of Women in Mathematics", but male allies provided essential encouragement and public endorsement of the society's goals even before AWM was officially formed. By September 1971, the organization had changed its name from "Association **of** Women" to "Association **for** Women," again to signal that men were welcome to join the endeavor of promoting women in mathematics [7]. The Association **for** Women **in** Science appears not to have done much navel-gazing over its name, but the development of the Association of Women Geoscientists from a local group in the San Francisco area in 1977 to a national organization in 1981 again involved a name change from the preliminary "Association **of** Women Geoscientists" to the final "Association **for** Women Geoscientists" [3; 4; 20]. Perhaps too much can be made of a name, but it is striking that none of these societies wanted to be women-only. Rather, they associated institutional and professional strength with partnership and collaboration.

As I mentioned above, my paper was published in a doorstop of a book that itself can be seen as an example of an organizational history [6]. Its 1146 pages contain 94 chapters organized into 17 parts. The vast majority of the chapters are reminiscences by AWM members; these personal accounts not only provide information about their authors' lives, careers, and roles in AWM, but also, when read as a whole, construct an overlapping narrative of AWM's five decades and highlight other themes that appear in histories of women in STEM, such as two-body problems, employment discrimination, and the formation of intellectual communities. Chapters that may be of particular interest to Canadian mathematicians include an account of the founding of AWM from the point of view of the New Left Mathematicians Action Group, which is one of the final publications of Chandler Davis, who was a member of both CMS and CSHPM [9].



The AWM's 50th-anniversary volume. Springer.

References

[1] Ackerberg-Hastings, Amy. (2022) AWM in Context: Comparing the Histories of Professional Societies for Women in STEM. In Fifty Years of Women in Mathematics: Reminiscences, History, and Visions for the Future of AWM, edited by Janet L. Beery, Sarah J. Greenwald, and Cathy Kessel, 975–985. Vol. 28, Association for Women in Mathematics Series. Cham, Switzerland: Springer.

[2] Adams, Amanda S., Allison L. Steiner, and Christine Wiedinmyer. (2016) The Earth Science Women's Network (ESWN): Community-Driven Mentoring for Women in the Atmospheric Sciences. Bulletin of the American Meteorological Society 97(3), 345–354. A final shared attribute, attention to the choice of prepositions, was especially important for the three profes

.

[3] Association for Women Geoscientists. (2020) About AWG. A final shared attribute, attention to the choice of prepositions, was especially important for the three profes

.

[4] Association for Women in Science. (2019) AWIS History. A final shared attribute, attention to the choice of prepositions, was especially important for the three profes

.

[5] Barany, Michael J. (2022) Mathematical Institutions and the "In" of the Association for Women in Mathematics. In Fifty Years of Women in Mathematics: Reminiscences, History, and Visions for the Future of AWM, edited by Janet L. Beery, Sarah J. Greenwald, and Cathy Kessel, 325–341. Vol. 28, Association for Women in Mathematics Series. Cham, Switzerland: Springer.

[6] Beery, Janet L., Sarah J. Greenwald, and Cathy Kessel, eds. (2022) Fifty Years of Women in Mathematics: Reminiscences, History, and Visions for the Future of AWM. Vol. 28, Association for Women in Mathematics Series. Cham, Switzerland: Springer.

[7] Blum, Lenore. (1991) A Brief History of the Association for Women in Mathematics: The Presidents' Perspectives. *Notices of the American Mathematical Society* 38(7), 738–754. https://www.ams.org/journals/notices/199109/199109FullIssue.pdf.

[8] Braselmann, Sylvia. (2003) Reluctant Rebels: Women Scientists Organizing. *Bulletin of Science, Technology & Society* 23(1), 6–9.

[9] Davis, Chandler. (2022) Mathematicians Action Group and the Founding of AWM. In *Fifty Years of Women in Mathematics: Reminiscences, History, and Visions for the Future of AWM*, edited by Janet L. Beery, Sarah J. Greenwald, and Cathy Kessel, 25–30. Vol. 28, Association for Women in Mathematics Series. Cham, Switzerland: Springer.

[10] Eppinga, Jane. (2009) *They Made Their Mark: An Illustrated History of the Society of Woman Geographers*. Guilford, CT: The Globe Pequot Press.

[11] Graduate Women in Science. (2018) GWIS History. https://www.gwis.org/page/history_2018.

[12] Gray, Mary, ed. (2017) *Association for Women in Mathematics Newsletter* 1–2 (1971–1972). *AWM Newsletter Archive*. https://www.drivehq.com/folder/p8755087.aspx.

[13] Greenwald, Sarah. (2016) Interview with Mary Gray. *AWM Newsletter* 46(5), 8–16. https://www.drivehq.com/folder/p8755087/14895458733.aspx.

[14] Keyfitz, Barbara Lee. (2022) Interesting Times: Reflections of AWM's Seventeenth President. In Fifty Years of Women in Mathematics: Reminiscences, History, and Visions for the Future of AWM, edited by Janet L. Beery, Sarah J. Greenwald, and Cathy Kessel, 721–737. Vol. 28, Association for Women in Mathematics Series. Cham, Switzerland: Springer.

[15] Klawe, Maria M. (2022) Supporting Women in Mathematics and Computer Science. In Fifty Years of Women in Mathematics: Reminiscences, History, and Visions for the Future of AWM, edited by Janet L. Beery, Sarah J. Greenwald, and Cathy Kessel, 283–293. Vol. 28, Association for Women in Mathematics Series. Cham, Switzerland: Springer.

[16] Laube, Heather, and Beth B. Hess. (2001) The Founding of SWS. Sociologists for Women in Society. [1] Ackerberg-Hastings, Amy. (2022) AWM in Context: Comparing the Histories of Professional Societies for Women in STEM. In Fifty Years of Women in Mathematics: Reminiscences, History, and Visions for the Future of AWM, edited by Janet L. Beery, Sarah J. Greenwald, and Cathy Kessel, 975–985. Vol. 28, Association for Women in Mathematics Series. Cham, Switzerland: Springer.

[17] Perusek, Anne M., and Troy Eller English, eds. (2015) We Built This: A Look at the Society of Women Engineers' First 65 Years. Chicago: Society of Women Engineers.

[18] Roby, Pamela Ann. (2009) The Women's 1969 Sociology Caucus, Sociologists for Women in Society and the ASA: A Forty Year Retrospective of Women on the Move. Paper presented at the Annual Meeting of the American Sociological Association, San Francisco, 8 August 2009. [1] Ackerberg-Hastings, Amy. (2022) AWM in Context: Comparing the Histories of Professional Societies for Women in STEM. In Fifty Years of Women in Mathematics: Reminiscences, History, and Visions for the Future of AWM, edited by Janet L. Beery, Sarah J. Greenwald, and Cathy Kessel, 975–985. Vol. 28, Association for Women in Mathematics Series. Cham, Switzerland: Springer.

[19] Rossiter, Margaret. (1982–2012) Women Scientists in America. 3 vol. Baltimore: The Johns Hopkins University Press.

[20] Schneider, Blair, Lisa M. Tranel, and Mackenzie Cremeans. (2018) The Association for Women Geoscientists: Forty years of successes, struggles, and sisterhood. In Women in Geology: Who Are We, Where Have We Come From, and Where Are We Going? edited by B. A. Johnson, 105–120. Geological Society of America Memoir 214. Boulder, CO: Geological Society of America.

[21] SWE Blog. (2020) Celebrating 70 Years of SWE! All Together. [1] Ackerberg-Hastings, Amy. (2022) AWM in Context: Comparing the Histories of Professional Societies for Women in STEM. In Fifty Years of Women in Mathematics: Reminiscences, History, and Visions for the Future of AWM, edited by Janet L. Beery, Sarah J. Greenwald, and Cathy Kessel, 975–985. Vol. 28, Association for Women in Mathematics Series. Cham, Switzerland: Springer.

Amy Ackerberg-Hastings finally got around to joining AWM shortly after publishing the chapter discussed in this column. She co-edits "CSHPM Notes" with Hardy Grant, co-edits MAA Convergence with Janet Heine Barnett, and researches the histories of mathematics education, mathematical instruments, and women in science and mathematics.

Email the author: aackerbe@verizon.net
Keywords: women in mathematics; history of mathematics in Canada; history of mathematics in the United States

---

Email the author: aackerbe@verizon.net

Reflections on the Teaching of Mathematics with Art

Education Notes

Zdeňka Guadarrama (Rockhurst University)

I recently created a virtual museum which I have called the Museum of Art in Math Teaching[1] showing examples of the work I have done with my students in undergraduate mathematics classes using art to explore, develop, apply, reflect on, or assess mathematical concepts. The intent of this virtual space, which I will continue to expand and re ne, is to inspire mathematics teachers at all levels to explore the possibilities that exist at the intersection of mathematics and art as enriching pedagogical tools. In the museum's Hall of Reflections, you can listen to a student who graduated from Rockhurst University in 2012 reflect on the impact of having experienced art as part of his undergraduate learning of mathematics.[2]

I have used art in the teaching of undergraduate level mathematics in a variety of classes. For example, inspired in the Math Horizons paper on Fibonacci Mobiles by Alison Frane and Susan Goldstine[3], I created a semester long project for Calculus 2 that lead students through the design and construction of a mobile while studying areas, centers of mass, sequences, and series.[4] The mobiles were displayed in our building's main hallway at the end of the semester. I directed an undergraduate research project in measure theory in which students created art pieces to further their understanding of concepts after every chapter of readings and exercises related to measure theory.[5] We showed the pieces at two venues at the end of this project. During the pandemic, while working with my students fully online on Calculus 1 and considering how to create meaningful assessments that could minimize dishonesty while creating opportunities for conversations with students, I developed a half semester project in which students wrote and illustrated a story book aimed at 5th graders and based on a calculus concept. The stories went through a few iterations of revisions before the final draft was turned in as part of the final exam, and the illustrated versions were read to 5th graders.[6]

In spring of 2020, I started teaching a class called Math in the Modern World (MMW), which is our university's version of Mathematics for Liberal Arts. The class has a different focus depending on the faculty member teaching it, and I designed the class to engage students in mathematical reasoning through art. MMW: Art consists of a collection of very hands-on modules which have varied from class to class, spanning concepts like symmetry, tessellations, polyhedra, 2D to 3D and back, fractals, perspective, knots, and visual presentation of data.[7]

From the beginning, I perceived a higher level of mathematical anxiety in students in MMW: Art compared to what I was used to from teaching mathematics to STEM majors. To understand better the situation, I introduced a few surveys to gather data about students' mathematical anxiety and their attitudes towards mathematics. I have collected information about

Capturing if there is any change in students' perception of mathematics from the beginning to the end of MMW: Art has been a challenge I continue to pursue. I have gathered some quotes with regards to how this class, which focuses on teaching mathematical reasoning through art, has changed how students think about mathematics. Here are three representative quotes.

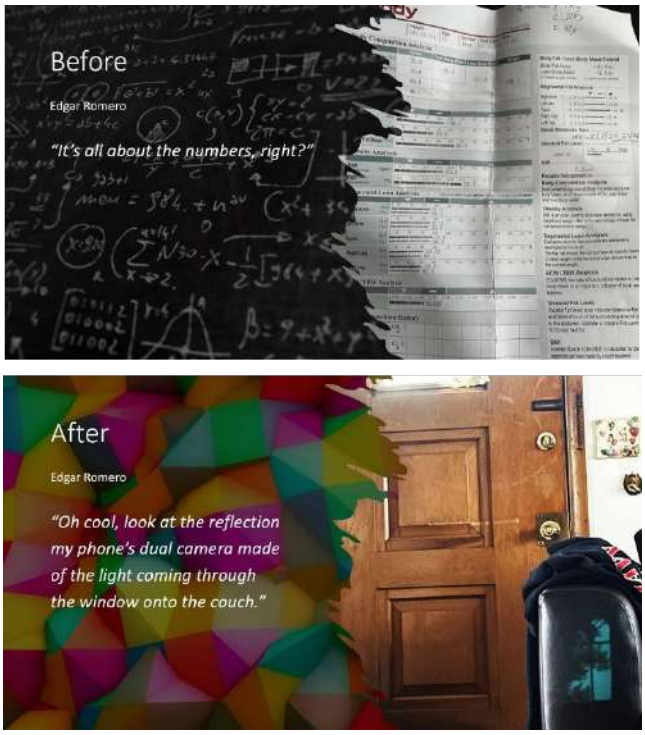
> *"My understanding of math has changed signi cantly. I say this because now I don't think of math as something solely found at schools and STEM major careers but it's all around us in nature and in our everyday life. I think this was because the class focused on everything to do with math but not in the standard way, it made me feel like maybe I wasn't as bad at math as I thought."*
>
> *Jocelyn Garcia-Flores*

> *"This semester I learned that math can be di ferent than solving equations and that it has an art side to it."*
>
> *Sarah Bernal*

> *"I think just my concept of mathematics as a whole has changed. Before this class, I was very number oriented with my mathematical thinking, but now this class has shown me just how hands on and creative math can be."*
>
> *William Pender*

Though these comments re lect the sentiments expressed by many of the students, in the spirit of the class, I wanted to create a visual representation of their collective state of mind with regards to mathematics before MMW: Art, and a ter taking the class. I experimented with requesting that students submit a picture representing their relationship with mathematics at the beginning of the semester in the introductory quiz, and then again at the end of the semester in their nal re lection. Figure 1 is an example of submissions by one student in the fall of 2021. I have annotated them with BEFORE and AFTER. The student, Edgar Romero, speci cally commented on where he "sees" mathematics in each one of his submissions.

*Figure 2. Edgar Romero **Before** and **A ter** MMW: Art Fall 21*
Insert an IMAGE that describes your relationship with mathematics



Combining all pairs of submissions (only students who submitted both images are represented) and using the images from Figure 1 as a background, I created the collages below. To be able to compare individuals within the group, every student's location on the collage remains the same on both images.

Figure 2. Insert an IMAGE that describes your relationship with mathematics (a) Before and (b) A ter
Math in the Modern World: Art, Fall 21

a)

b)

The feel of these two images is quite different. I see two striking differences: color and expressions. The images seem to indicate a positive change in attitude with respect to mathematics which I would like to attribute to the hands-on-learning of mathematical reasoning through art. The word- cloud below, in which size reflects frequency of the word in the list, is a summary of the one-word description students used for the MMW: Art class.

Figure 3. Describe MMW: Art in one word 9

I believe there is great potential for enriching mathematics classes at all levels using art as a pedagogical tool. This approach has been very rewarding and fun for me and my students, and it has been especially helpful in my classes for non-STEM majors which have large proportions of students with mathematical anxiety by creating more positive attitudes towards mathematics.

Zdeňka Guadarrama is a Professor of Mathematics at Rockhurst University in Kansas City, Missouri. She has taught mathematics classes across the undergraduate curriculum, and used art as a bridge into the exploration, development, application and re lection of mathematical ideas.

She is the Department Chair of Mathematics, Analytics and Technology, and Director of Mathapalooza, a Mathematics outreach program which focuses on engaging people of all ages in mathematical explorations outside the standard K-12 curriculum. Because she believes that there is enough variety of mathematics out there for everyone to enjoy, and that play can help challenge conventions about what mathematics is and how it is taught, she is also the Co-founder of the social enterprise Math through Play.

Zdenka has written mathematics curriculum, given talks, designed workshops for teachers to help them bring mathematical inquiry into their classes, and created a range of programs to introduce the community to meaningful, beautiful, and enjoyable mathematics.

Email: zdenka.guadarrama@rockhurst.edu

Endnotes

[1] Z. Guadarrama, Museum of Art in Math Teaching: https://app.cloudpano.com/tours/aOZK1V5Py

[2]Video Serge Nevsky, So tware Engineer, currently at Meta.
https://drive.google.com/ le/d/1MVbrDd0krmhqrU8bn2r3CF1ttuDzmL3e/view

[3] Frane, Alison and S. Goldstine (2008) Fibonacci Mobiles Math Horizons, 16(2), pp. 24–25.

[4] Art in Single Variable Calculus: https://app.cloudpano.com/tours/aOZK1V5Py?sceneId=zgJ0K49ZU

[5] Art in Math Undergraduate Research: https://app.cloudpano.com/tours/aOZK1V5Py?sceneId=IYFJ76el4

[6] Art in Single Variable Calculus: https://app.cloudpano.com/tours/aOZK1V5Py?sceneId=zgJ0K49ZU

[7] Some examples of student work from these classes can be found in Art in Math for Liberal Arts Galleries: https://app.cloudpano.com/tours/aOZK1V5Py?sceneId=tJj874hPg and https://app.cloudpano.com/tours/aOZK1V5Py?sceneId=kXdCwqKNt

[8] Numbers of students who provided data by class and its modality: Spring 21 (25 students – fully online synchronous class), Fall 21 (23 students- hybrid class: one day on ground and one day online asynchronous), Spring 22 (20 students – online hybrid: one day synchronous and one day asynchronous), Spring 23 (15 students – classroom-based meeting two times a week).

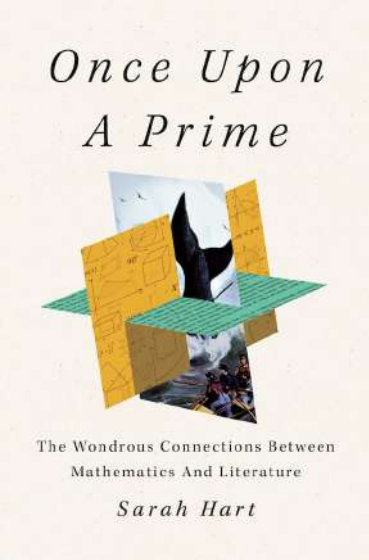
[9] From end of the semester re lection, MMW: Art: Spring 21, Fall 21, Spring 22, Spring 23.

Once Upon a Prime. The Wondrous Connections Between Mathematics and Literature

Book Reviews

Karl Dilcher (Dalhousie University)

Book Reviews Editor, CMS Notes Editorial Board & Editor-in-Chief, CMS-CAIMS Books in Mathematics Editorial Board



By Sarah Hart
Flatiron Press, 2023 Hardcover, 290 pp., CA$ 39.99
Reviewed by Karl Dilcher

Mathematicians tend to like puns, and this reviewer is no exception. Is the title just a gimmick to get our attention? It certainly worked for me, as I browsed through the Science section of "The Bookmark", Halifax's only, and very good, independent bookstore. But being rather cheap, I buy a $40 hardcover only if it's really necessary. A quick look at the table of contents, and reading some short random samples, convinced me that it was.

I was not disappointed – far from it! In fact, the author nominates "The Best Value Book of All Time" in Chapter 4. While it is di cult to beat her example (I'll come back to this later), the book under review will be a strong contender for runner-up, at least in my opinion.

But back to the title. Searching my brain (an expression used a few times by the author) for other prime examples, I came up with "High Primes and Misdemeanours", the proceedings of a BIRS conference in honour of Hugh Williams's 60th birthday, edited by Alf van der Poorten and Andreas Stein (AMS, 2004), and "Prime Suspects", a graphic novel by Andrew Granville and Jennifer Granville (Princeton, 2019). The first of these is exclusively mathematics and the second one is a detective story involving mathematicians and mathematics; both volumes have strong

Canadian connections. The third one, "Once Upon a Prime", combines the two disciplines, as the subtitle indicates. Right from the beginning the book convinces the reader that there are indeed surprisingly many wondrous connections between mathematics and literature, and it does so in a wondrous way.

Of course, the title alludes to fairy tales, and indeed, the book contains numerous references to folklore and creation or foundation myths of different cultures around the world. I can't help but mention at this point that I grew up in the part of Germany, just south of Göttingen, where the Grimm brothers collected their stories and fairy tales. Perhaps this contributed to my fascination with the title.

The book begins with, "Call me Ishmael". Well, this opening sentence worked once, why not again? Further down on the first page the author writes, "The more Melville I read, the more mathematics I discovered. And it wasn't just Melville." She then mentions Leo Tolstoy, James Joyce, Arthur Conan Doyle, and Chimamanda Ngozi Adichie. As if this level of diversity wasn't enough, these names are followed by Michael Crichton's Jurassic Park and Aristophanes's The Birds. Talk about grabbing the reader's (or in my case the potential reader's) attention in the first two dozen lines of the book! And it only gets better; the level of diversity of literary genres and authors is astounding, and I would never have imagined the diversity of connections with mathematics which often goes far beyond the elementary.

Towards the end of the Introduction, the author states her purpose: "If you don't yet love mathematics, I want this book to show you the beauty and wonder of it, how it is a part of our creative lives, and why it deserves its place with literature in the pantheon of the arts. I want it to give you an extra perspective on the writing and writers you know, introduce you to writing you don't, and give you a new way of experiencing the written word.

"If you happen to be a mathematician, then you already have poetry in your soul [Thank you, Sarah Hart!], but we'll look at how this is manifested in places you may never have realized, as part of an enduring conversation between literature and mathematics. I warn you: you're going to need a bigger bookcase."

The author, Sarah Hart, is Professor of Mathematics at Birkbeck, University of London. Birkbeck's courses are almost exclusively delivered in the evening and students can study part-time or full-time. In connection with her discussion of the life and work of the brilliant but little-known English writer B. S. Johnson (1933-1973) who attended Birkbeck, Sarah Hart writes, "[I] am constantly banging on about the vital importance of giving people the chance to pursue higher education at any stage in their lives."

Hart is also the first female Gresham Professor of Geometry since its inception in 1597. Her area of research is group theory, but she has also made a name for herself as a successful expositor of mathematics. For instance, some of her excellent talks can be found on YouTube.

And how she can write! Although literature and mathematics are often portrayed as serious and heavy, this is a very light-hearted book. The author is funny, sometime self-deprecating, and she does use a few more puns; but all of this sparingly, with just the right dosage. The book "reads well"; in fact, it's a page-turner, difficult to put down, partly because you know the next page, or the next paragraph may contain yet another delightful sentence or surprising fact. You feel that the author had fun writing this book, and she delights in telling you all these amazing stories. And yes, if there is one word that might describe this book, it is "delight".

Another reason why the book works so well is the fact that the author brings a good deal of herself and her family into it. Some of the individual stories begin with describing visits with authors, or with media interviews. It's not the usual anonymous omniscient narrator giving you the facts, it is Sarah Hart, mother of two girls and working full-time, who is sharing with you the wondrous stories and facts which she herself discovered possibly not too long ago, and who makes you share in her delight.

Let me share a small sampling of delightful phrases with you. In Chapter 4 (The Arithmetic of Narrative Choice), the number 25! appears in connection with The Best Value Book of All Time, and the author gives the number explicitly, adding, "That's 15.5 septillions, if it helps (and I know it doesn't)". In the following chapter, she tells a story in which she is challenged to say something interesting about the number 22. At first, she is stumped, but later on she does come across a fascinating property related to a certain numerical sequence. This prompts her to conclude this segment by writing, "all number are interesting if you give them a chance." The second half of this sentence is the delightful part, especially since many of us mathematicians are familiar with the "proof" by contradiction that all numbers are interesting.

The author would likely consider this last statement to be "form without content"; in her opinion this should be avoided in good mathematics as well as in good writing. In fact, in Chapter 4 she writes in connection with experimental fiction and random plots that "structure for the sake of structure, in literature just as in mathematics, risks being arid and pointless." Further on the topic of structure, she concludes Part 1 of the book by writing, "Above all, I hope I've shown that behind every work of literature there is structure, and behind every structure there is delightful mathematics to explore.

Before leaving this topic behind, let me summarize the structure of the book, which is divided into three parts and ten chapter. (And yes, the numbers 3 and 10 are indeed featured in Chapter 5: "Fairy-Tale Figures. The Symbolism of Number in Fiction". But this may just be a coincidence, or an instance of Richard Guy's "Strong Law of Small Numbers"). Part I has the title "Mathematical Structure, Creativity, and Constraint", Part II is about "Algebraic Allusions. The Narrative Uses of Mathematics", and Part III, "Mathematics Becomes the Story". Enumerating the individual chapters (which all have interesting and fascinating titles) might go too far here.

The book also contains nine pages of notes; it appears that, thankfully, the author and/or the editor resisted the temptation of overwhelming the reader with too much additional information. And finally, before a helpful and detailed index, there is a 6-page "Mathematicians Bookcase", which the author describes as "a collection of some of the books on my shelves that we have discussed, with a few bonus recommendations thrown in for good measure."

I already mentioned the opening sentence of the book, so at the end of this review I also wish to quote the last sentence of the body of the book: “In literature, as in life, there are as many different ways to be a mathematician as there are different ways to be a person.”

Dear friends and colleagues, if you haven’t yet bought a new book in your local independent bookstore this year (or this month), let this be your first one. You will not regret it.

Sarah Hart will be an invited speaker at this year’s Bridges Conference, as part of the annual conference series subtitled “Mathematics – Art – Music – Architecture – Culture. Bridges 2023 will take place at the Sexton Campus of Dalhousie University in Downtown Halifax, 27-31 July 2023. Please see https://www.bridgesmathart.org/b2023/

Key words: History of mathematics; mathematics and literature.

Email the author: dilcher@mathstat.dal.ca

Personalizing equity, diversity and inclusion: How my experiences shaped my views

MOSAIC

Kseniya Garaschuk (University of the Fraser Valley)

Editor-in-Chief, CRUX & Chair of Equity, Diversity and Inclusiveness Committee

I was recently appointed to the role of a Chair of the CMS EDI committee. What qualifies me for the job? What are the qualities that one should possess? What does EDI mean to me and where do I fit in?

I am a woman. I am white, Eastern European, an immigrant, a mother. I can list many nouns and adjectives that describe me; some of them will place me into a historically underrepresented group (in math) and some of them will place me into the majority.

I am direct, candid, opinionated, outspoken, present. These qualities o ten metamorphose into their unfavourable counterparts when my gender gets applied to my traits: loud, rude, argumentative, cocky (how ironic). I wasn't always this way. The ability to speak up took me a while to grow into. Along the way many, I think people believed that I was naturally outspoken, whereas to this day bringing up a contentious topic to a meeting makes my heart race and my accent thicken. I do not enjoy conflict or bringing up uncomfortable topics to the table, but I also don't avoid it like a plague. In my experience, discussion avoidance results in a dysfunctional or toxic atmosphere. On the contrary, a productive (although likely initially uncomfortable) conversation allows for a richer understanding of all viewpoints and offers ways forward.

So in the spirit of sharing, below I collected a few stories to highlight some of my experiences and how they form my way of thinking about equity, diversity and inclusion.

I was hired at UFV in 2016 when I was pregnant (ask me about that experience in person), so I started my position on maternity leave. I should point out that at UFV the entire Faculty of Science and Math and Stats Department in particular has a much higher ratio of women than other departments that I have been a part of, so having a female colleague and working around parental leaves is not uncommon. Despite being on leave, I came in for department and faculty meetings to meet people and get a head start on my work. And just like that one negative student review that ruins the whole batch, there was one experience I remember vividly despite many positive ones. My first Faculty of Science meeting, a senior colleague came up and, laughingly, said "We hired you months ago, when are you actually going to come in and start teaching?". I brushed it o f as a joke. Next meeting, he (let's

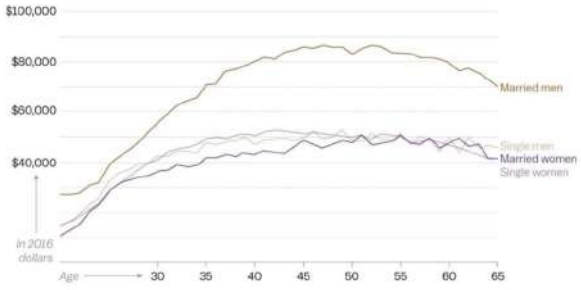
call him Bob) said the same thing; I walked away. Third time it happened, he still clearly thought it was funny; I told him it was not okay to keep asking me, that I was taking my legal leave and I needn't be ashamed about it. He looked surprised, and I got worried… It was a senior colleague that might later be on my tenure committee and would carry on the sentiment that "I did nothing" for the first year that I was hired, even though I was on legal leave.

The fact that Bob made those remarks in the presence of other faculty didn't result in anyone else speaking out. I also told this story to a few other colleagues, most of whom (in fact, all but one) brushed it off as "Bob being Bob". Why are we so quick to dismiss inappropriate behaviour as a minor offense not worth discussing? Why did it have to be me correcting that person when I was in the most vulnerable position — both not tenured and on the receiving end of the commentary?

We can dismiss Bob as being insensitive, old-school, ignorant, you can say that this isn't something you'd ever do. But would you tolerate it? Bobs are present everywhere, they speak their opinions and they act based on those opinions; so what could people around me have done to make this experience a successful EDI story?

A diverse population does not mean the environment is inclusive and it does not automatically make it so.

Last term I was teaching Calculus 1 for Business. On the midterm, I gave students this graph that illustrates the data for marriage and gender salary income of employed men and women with a high school diploma:



Source: IPUMS-USA, University of Minnesota

Several parts of the question asked the students to compute average and instantaneous rates of change of salaries of various groups. Last (bonus) part asked: "Give one possible real-world explanation for the salary gaps between married men and everyone else." Vast majority of my students are first-years, the Gen Z's that we sometimes consider being "too woke". Their answers surprised me. About half the class came up with reasons why men get paid more than women, which of course doesn't answer the question of why married men get paid more than all other groups, including single men; but at least this is not offensive. The other half of the class gave reasons that divided into roughly 3 categories:

- men feel the responsibilities of raising a family;
- men work harder/more;
- wealthy men are more attractive as potential spouses.

"Married men tend to work more hours since they provide for their whole family", "married men are the breadwinner of the family", "married men work longer hours than women", "men work full-time or more whereas women work less", "most of the married women do not seek higher salaries if their husband works", "men who are rich are more likely to marry as compared to everyone else", "men with higher wages are more likely to get married"… Is it me or does this sound like women do not feel the need to support their families, women are not career-motivated and women's choice of life partners is based on the size of their paycheque?

What is striking is that all of the answers focused on men and the end reason why they make more money (take on more responsibilities, more work hours, look out for promotion opportunities, etc.) None of the answers presented the situation from the point of view of either single men or women, e.g. what allows married men to accelerate their career and make more money than any other group.

My response to the class can be summarized by this tweet:

We tend to focus on what one group of people can do rather than what other groups of people are unable to do and why. We need to consider the situation (data, information, an event, an initiative) from points of view of different groups of people. We need to pay attention not only to what is present or what is presented, but also to what is specifically absent.

Inclusion is creating and supporting spaces for meaningful and successful participation of all.

I first joined CMS in summer 2006. I just began my Master's degree at Simon Fraser University. A friend of mine went to the Canadian Undergraduate Math Conference earlier that year and wanted to bring the next edition of the event to SFU. I happily agreed to be on the organizing committee. I went to my first CMS meeting in winter 2006 in Toronto and I don't believe I missed a single CMS meeting for over a decade after that. I served as a chair of the Student Committee and participated in Board of Directors meetings in that role, I started student poster sessions at CMS meetings and created a student newsletter, Notes from the Margin, I was a member of the Education Committee and several of its subcommittees, I organized 6 CMS Math Camps, I became Editor-in-Chief of Crux Mathematicorum in 2013 (while still a PhD student), I rid the journal of its year-long backlog and eventually moved it to be an open-access publication freely available online. I organized numerous CMS sessions, panels and events, I was an education lead organizing CMS's first-ever online meeting during the pandemic.

In 2020, a friend and a colleague decided to nominate me for the CMS Graham Wright Distinguished Service Award. My initial reaction was "have I really done enough to be a worthy recipient?" I wasn't even tenured yet and it felt like a career award. But then I thought of the list above (which isn't even complete).

I received the Award. I was subsequently named a CMS Fellow (I'm told I'm the youngest person to be named a CMS Fellow so far). The best part of being recognized was getting emails from people I haven't talked to in a while and didn't have a specific reason to connect to. But one congratulatory email was to the point as it summed up my feelings and fears regarding the initial nomination: "Having served on these kinds of panels before, I know that giving the award to a (very!) young colleague is a tough sell."

All awards encourage participation from all groups — it is clearly stated on the CMS Awards pages. But how does this encouragement look like on the receiving end? Here is the table from MOSAIC column by Habiba Kadiri that I think we need to look at carefully and look at often (My response to the class can be summarized by this tweet:):

Awards	Women (since beginning)	Women (since 2012)
Fellowship of the CMS [19] (since 2018)	11.8%	11.8%
David Borwein Distinguished Career Award [20] (since 2006)	0%	0%
Graham Wright Award for Distinguished Service [21] (since 1995)	10.3%	20%
Adrien Pouliot Award [22] (since 1995)	14.3%	20%
Excellence in Teaching Award [23] (since 2004)	16.7%	20%
Coxeter James Prize [24] (since 1978)	4.5%	0%
Jeffery-Williams Prize [25] (since 1968)	1.9%	0%
CMS Blair Spearman Doctoral Prize [26] **(since 1997)**	7.7%	0%
G. de B. Robinson Award [27] (since 1995)	15.4%	27.3%
CRM-Fields/CRM-Fields-PIMS Prize [28] (since 1995)	7.4%	10%

We need to understand the problem before we can solve it: do various under-represented groups not apply? Are they found lacking in excellence? Are they not qualified because of some systemic barriers?

Let's take Coxeter-James Prize. Its eligibility states that "Nominations may be made up to ten years from the candidate's Ph.D" (and until recently I believe that is all it stated — it now allows for exceptions with explained eligible leaves of absence). Women who have kids and take parental leaves (as they do at a much higher rate than men) are likely to do so exactly during the first 10 post-PhD years, which means that for each child a female candidate's eligibility and body of work are reduced by at least a year. And it doesn't stop at gender. A person with a disability or an ongoing medical condition might take time to attend to their health. An Indigenous person with strong ties to their community might take time off after their PhD to reconnect before rejoining academia. A 10-year cut off is a systemic barrier that disproportionally affects certain groups.

If you are on any kind of committee (hiring, awards, CMS or otherwise), start asking questions about eligibility and the transparency of the competition process as understanding hidden constraints is the first step in closing glaring gaps.

Equity is fairness in context. It starts with access, but it does not end there.

My favourite course to teach is History of Mathematics, Math 410 at UFV. This course is not about teaching math chronologically or examining ancient math techniques in a vacuum. It is about exploring mathematical ideas as embedded in culture and environment, dispelling both the Eurocentric and the impassive view of the development of mathematics.

It is the hardest course to teach. I am neither a historian nor an anthropologist. I am as much of a learner as my students. For this reason, the course content delivery is divided evenly between me, my students and various other sources. I generally deliver the overview of a topic, students (through oral presentations and written blogs) dig into more specifics, while the final third of course materials consists of podcasts, videos and readings from various authors to provide exposition from different viewpoints.

It is the most rewarding course to teach. It's an elective and the prerequisites are simple: 27 math credits, equivalent to 8 previous math courses. My students are either math majors or future math teachers, so the captive audience seemingly doesn't need to be persuaded that math is beautiful. In standard curriculum our students see connections between math and other hard sciences, but this might be the only chance they get to see the development of mathematics as a human endeavour, to discuss the surrounding context of the time and place, to see math as a social science. They discover that there is much more humanity to the subject whose technical side they enjoy.

On the first assignment, I ask them to find a piece of art or craft native to the land where they were born or belonging to their family's cultural heritage and write about the tradition as well as what mathematics they see in it. Here was the tapestry of my last class's heritage:

So many different backgrounds, yet we all found beauty (and math) in each others'. A simple activity uncovered the rich culture already present in the classroom.

Call for Submissions: CMS Notes Mathematics, Outreach, Society, Accessibility and Inclusiveness Column (MOSAIC)

MOSAIC

The Canadian Mathematical Society (CMS) invites you to submit articles to be featured in the MOSAIC column of the CMS Notes.

MOSAIC (Mathematics, Outreach, Society, Accessibility, and Inclusiveness Column) is directed by the CMS Equity, Diversity, and Inclusion (EDI) committee.

The column offers a space of expression for you to ask, listen, learn, share experience, and propose solutions to build a more diverse, just, and stronger mathematical community. For instance, you are welcome to submit an article sharing challenges and successes in enacting EDI initiatives within your university, with competitions, outreach activities, or other events.

Your email submission should include your article in both Word and PDF formats. Please submit your article to the EDI Committee at mosaic@cms.math.ca

Réunion d'hiver 2023 de la SMC – Appel pour sessions

Réunions de la SMC

La Société mathématique du Canada (SMC) sollicite des propositions de sessions scientifiques et de mini-cours pour sa Réunion d'hiver 2023, qui se tiendra à Montréal du 1 au 4 décembre. Conformément à son mandat de proposer des congrès accessibles et accueillants pour tous les groupes, la SMC encourage fortement la diversité parmi les personnes qui organisent ses réunions ou y donnent des conférences. La diversité s'applique aux domaines d'intérêt, à l'étape de la carrière, à l'emplacement géographique et aux caractéristiques démographiques.

APPEL DE SESSIONS :

Les propositions doivent inclure :
1) Les noms, affiliations et coordonnées de tous les co-organisateurs de sessions. On encourage les chercheurs en début de carrière à proposer des sessions.
2) Un titre et une brève description du sujet et de l'objectif de la session; peut aussi comprendre un aperçu du sujet.
3) Le nombre de conférenciers attendus, avec une liste de communications et/ou de conférenciers potentiels pour le thème. Dans la mesure du possible, les sessions devraient respecter la politique d'accessibilité et d'accueil de la SMC.

Appel ouvert de résumés : La SMC met en place un appel ouvert de résumés pour aider les organisateurs de sessions dans leur important travail et dans leurs efforts d'inclusion et de diversité.
La SMC vous prie de considérer les soumissions de tout candidat admissible. Nous jusqu'à 30 conférenciers par session seront accommodés.

Les sessions scientifiques se dérouleront du 2 au 4 décembre 2023.

La date limite pour présenter une proposition de session ou de mini-cours est le **lundi 31 juillet 2023.** Une deuxième date limite sera fixée au **1er septembre 2023**, mais les demandes antérieures seront examinées en premier lieu. Toute demande doit être envoyée aux Directeurs scientifiques et le bureau de la SMC doit y être copié. Vous trouverez ci-dessous leurs coordonnées :

François Bergeron : bergeron.francois@uqam.ca
Simone Brugiapaglia: simone.brugiapaglia@concordia.ca
Alina Stancu: alina.stancu@concordia.ca

Sarah Watson: meetings@cms.math.ca

Appel de mises en nomination pour les universités hôtes: hiver '25 et été '27

Appels

La Société mathématique du Canada (SMC) invite les universités canadiennes à proposer des hôtes pour accueillir la Réunion d'hiver de la SMC en 2025 et la Réunion d'été en 2027.

La SMC se charge du soutien logistique et de toute négociation de contrats auprès des fournisseurs locaux. La SMC est à la recherche d'universités canadiennes disposées à mettre en valeur leur département et leur université auprès des étudiant.e.s et des professeur.e.s partout au Canada. Les propositions doivent contenir les informations suivantes:

1. Localisation

- Comment les personnes participant à la Réunion pourront-elles se rendre au lieu depuis l'aéroport?
- Pourquoi votre ville intéressera-t-elle les mathématicien.ne.s canadien.ne.s?

2. Site

(Pour la Réunion d'été) Une description de votre Université où aura lieu la réunion.

- Dans quel bâtiment se tiendra la réunion et combien de salles sont disponibles pour les sessions et les séances plénières?
- Quel support technologique est disponible dans les salles de session?
- Les salles seront-elles disponibles pendant les dates proposées?

3. Logement

Votre Université sera-t-elle en mesure d'offrir un logement pendant les dates de la réunion? La SMC se chargera des contrats et des négociations auprès des hôtels.

4. L'université hôte

Veuillez brièvement décrire votre institution et votre département.

- Quels sont les soutiens financiers offerts par l'Université hôte pour la Réunion de la SMC?
- L'université est-elle disponsible pour des appels réguliers et des mises à jour régulièrement sur les progrès de la Réunion?
- L'université hôte peut-elle s'engager à fournir au moins un directeur.rice scientifique pour à la réunion?
- Selon vous, quel sera le niveau de participation de la part des membres de votre établissement?

Les Réunions de la SMC ont normalement lieu du vendredi au lundi de la première fin de semaine de juin et de décembre, mais nous sommes ouverts à d'autres possibilités. Les Réunions d'été reçoivent typiquement entre 250 et 350 participant.es et les Réunions d'hiver entre 400 et 600 participant.e.s quand elles ont lieu dans de grandes villes. Veuillez envoyer vos propositions à Sarah Watson (reunions@smc. math.ca).

Publicités pour les adhésions

Adhésions