No Pressure, No Diamonds

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I am not what one would consider a writer of prose, so when asked to write a cover article for the Notes, there was some trepidation. I sit here as August fades, pondering what issues might concern the CMS membership, or the mathematical community. My perspective is that of a Professor, a Department Chair, and a researcher.

Front of mind of course is the pandemic, the variants, and their inevitable influence on the approaching fall term. Though there is much to be apprehensive about as we prepare to meet our first in-person fall term since 2019, the eternal optimist in me thinks of the positives that have grown out of our recent collective experiences.

For myself, like all faculty and educators across the country, the past year and a half has been one of professional development born of necessity. Many of my colleagues have become Teams/Zoom aficionados – have learned how to use (and troubleshoot) various technological tools of the trade, completed Beamer slides and videos for courses. Many of us have developed resources, skills, and materials, which can serve us well for years to come. Personally, I am glad to have finally updated our WeBWorK server, which had a good workout over this past year. I also enjoyed the efficiency of online meetings, although I did miss the usual post-meeting banter and occasional communal doughnuts.

One unique characteristic of Mathematics is that it builds on the past. In many ways, our courses serve as a litmus test for the successes and failures of the past year's learning modes. 2020/21 carried with it a seemingly infinite echoing of concerns regarding academic integrity. For those returning students who may have taken shortcuts during online studies, the return to in-person classes and assessment, may prove challenging at first, but I am confident that in short order, students will adjust to in-person learning again, and come to appreciate its many advantages.

For the fresh incoming cohort, many of whom may have fallen behind, the return to in-person learning will certainly add to math anxiety which always exists, pandemic or no. They need not worry however, as these students will have direct face-to-face access to their professors, teaching assistants, and Math Help Centre tutors. Access to these resources may lie in such stark contrast to the recent past that these resources will hopefully be embraced by many students who have not utilized them in the past. Here, and on campuses across Canada, I believe we are ready – after all, it is what we do best.

Casting departmental matters aside, and putting on my mathematician hat, I must admit that I am quite optimistic about what we have seen grow out of our global struggles over the past 18 months:

- **The ability to attend multiple conferences on different continents.**

  Living in Saint John, travel invariably involves several "hops" to get to conference destinations. It was simply fantastic to be able to attend three conferences in 10 days this past summer. There were no hotels or flights to book, no layovers, and no stacks of receipts and travel claim documents (the bane of my conference travel) to process afterward.

- **The ability for graduate students, under-funded researchers, and others in visa-restricted countries to attend and participate.**
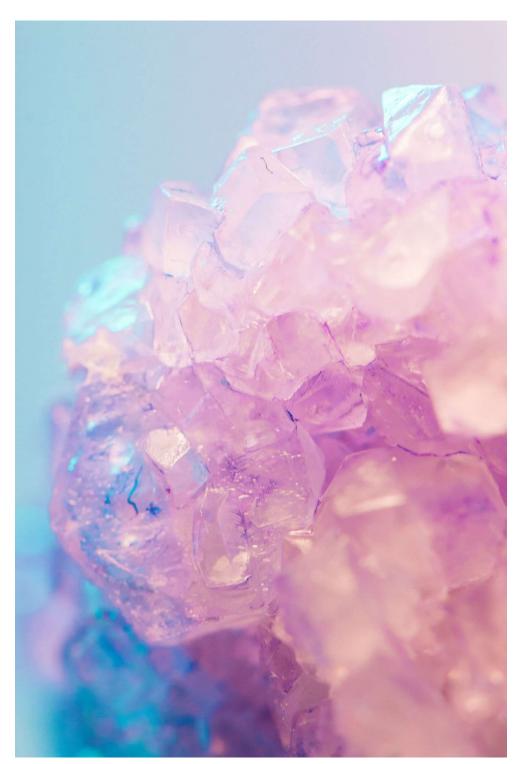
  During one of the international conferences I attended this summer, I spoke with a bright young PhD. student from Iran. She was thrilled to be attending several conferences this year that were previously impossible for her to join in person because of travel costs and due to various other logistics. I am quite certain that many other researchers have had the opportunity to present research at more meetings than ever before. In some ways, the pandemic has served as the great leveler. For that I am grateful.

- **Who says it's not easy being green?**

  There can be no doubt that there is a lower carbon footprint offered by virtual meetings. Through the online ICAO Carbon Emissions Calculator, I learned that the CO_2 emissions for the relatively short flight from home (Saint John) to Toronto, amounts to 250kg. This gives me one feel good moment for each virtual conference attended.

As incoming VP Atlantic, my first official meetings and email threads had much dedicated to discussions on how to conduct the Winter 2021 meeting, and to some extent all future meetings. As mentioned above, there are indeed benefits to virtual meetings. Moreover, holding future meetings exclusively in person could disadvantage those from countries with low rates of vaccination. Not only might these participants be vulnerable to infection if they chose to travel without full immunization, but some would quite possibly face travel restrictions due to lack of immunization documentation.

This still leaves it far from easy for the CMS to determine the format for the upcoming meetings. Indeed, many would agree that there are significant drawbacks to online meetings, including screen-time fatigue, and time zone scheduling conflicts. Collectively though, we agree that the greatest drawback is a seeming absence of networking opportunities.

The online format makes connecting graduate students with other members of their network, who might one day serve as mentors or collaborators, a significant challenge in many online conference platforms. On the other hand, some early-career mathematicians (especially those with introverted personalities) might find it less intimidating to ask questions during virtual sessions, and may be more inclined to reach out to new people. Bah! Dichotomy after dichotomy, and no clear (to me at least) application of Occam's razor.

So, the IRL vs. URL debate continues. In some sense it would be a lost opportunity to rise from this challenging time just to go straight back to the old way of doing things. In the meantime, the CMS Executive has decided to proceed with a virtual Winter 2021 meeting. What will future CMS meetings.