Inclusive Practices in Large Classes
Pratiques inclusives dans les grandes classes
(Org: **Katherine Daignault** (University of Toronto) and/et **Marie MacDonald** (Cornell))

ANDRIJANA BURAZIN, UTM
making learning math great again for everyone

I will share the inclusive practices that I use in large classes. Some things work. Others do not. But my teaching practice and course design change over time to hopefully fit my diverse math learners. Most students actually enjoy the experience of learning math. :)

GROUP DISCUSSION,

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CAROLINE JUNKINS, McMaster University
Learning about learning, using machine learning

With the added stress of the COVID-19 pandemic and shift to virtual learning, students in the 2020-2021 academic year faced unique challenges in their first-year calculus experience, including not only struggle with mathematical concepts, but also with motivation, mental health, and access to resources. As part of a self-affirmation exercise, students in a large enrollment first-year calculus course were asked to highlight something they felt proud about at the end of the term. By leveraging techniques from natural language processing and machine learning, we used the results of this exercise to learn about the student experience. In this talk, I will discuss how n-grams and support vector machines were implemented in combination with qualitative coding to classify over 1600 student open-ended text responses into 7 broad themes, and how the insights gained from this process were used to support the next cohort of students in the course.

ALYSSA LUMLEY, York University

ANTON MOSUNOV AND GRAEME TURNER, University of Waterloo
Following Principles of UDL When Authoring Electronic Textbooks and Auto-Graded Assessments

Providing students with multiple means of acquiring information agrees with the principles of Universal Design for Learning (UDL). One way this can be achieved is by developing electronic textbooks in addition to standard PDF course notes or physical textbooks. We present two such electronic textbooks created for Introduction to Proofs and Linear Algebra I courses at the University of Waterloo. Developed with Mobius courseware delivery tool, these textbooks contain narrated slideshows in accessible format, interactive exercises, as well as algorithmic concept check questions with instant feedback. We also discuss how auto-graded assessments assembled from such algorithmic questions can be used in large classes so to reduce the marking load and provide students with more opportunity to practice core concepts.

DIANA SKRZYDLO, University of Waterloo
Universal Design for Learning in Stats

The last few times I have taught Statistics courses, I've employed several Universal Design for Learning (UDL) principles to make it more equitable, including multiple ways to access course material, demonstrate engagement, and submit assessments. As it turned out, students this term who normally require several accessibility accommodations was able to engage with my course exactly as it was designed, because the barriers they normally face were already removed. In this talk I will share my approach and overall thoughts.

JAIMAL THIND, University of Toronto Mississauga