



**SALTISE**

Supporting Active Learning &  
Technological Innovation  
in Studies of Education

WWW.SALTISE.CA

INFO@SALTISE.CA

# 8<sup>E</sup> COLLOQUE ANNUEL DE SALTISE 8<sup>TH</sup> ANNUAL CONFERENCE

THÈME | **PROMOUVOIR UN APPRENTISSAGE PLUS APPROFONDI:  
DE L'ANALYSE AUX NOUVELLES STRATÉGIES**

THEME | **PROMOTING DEEPER LEARNING:  
FROM ANALYTICS TO NEW STRATEGIES**

**3 & 4 JUIN 2019**

**DAWSON COLLEGE**

4001 BOULEVARD DE MAISONNEUVE OUEST  
MONTRÉAL, QC H3Z 3G4

**CINÉMA CINEPLEX FORUM**

2313 ST. CATHERINE ST. WEST  
MONTRÉAL, QC H3H 1N2

## Map of Dawson College & Cinéma Cineplex Forum / Carte du Dawson College & Cinéma Cineplex Forum



## Location of Events / Lieu des événements

### EVENTS WILL BE HELD AT:

#### DAWSON COLLEGE

4001 Boulevard de  
Maisonneuve West  
Montréal, QC, H3Z 3G4

#### CINÉMA CINEPLEX FORUM

2313 St. Catherine St. West  
Montréal, QC, H3H 1N2

### VISITOR PARKING

Parking in the vicinity of Dawson College is limited.

Due to road work, car access to de Maisonneuve is restricted and rerouted between Atwater & Wood. Please pay close attention to signs and drive prudently.

There is parking available at the Place Alexis Nihon shopping mall at a rate of \$18.00/day. Access is on de Maisonneuve via Wood Ave.

### PUBLIC TRANSPORTATION:

Dawson College is centrally located in downtown Montreal.

**Metro:** Atwater station (Green Line)

**Bus:** there are several bus lines that serve the Atwater metro station.

Visit [www.stm.info](http://www.stm.info) for more information.

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## Dawson Internet Access / Accès d'Internet

**NETWORK / RÉSEAU:** Dawson\_secure

**USERNAME / NOM D'UTILISATEUR:** saltise

**PASSWORD / MOT DE PASSE:** Dawjune2019



Join the discussion on Twitter  
@SALTISE and use the hashtag #SALTISE2019



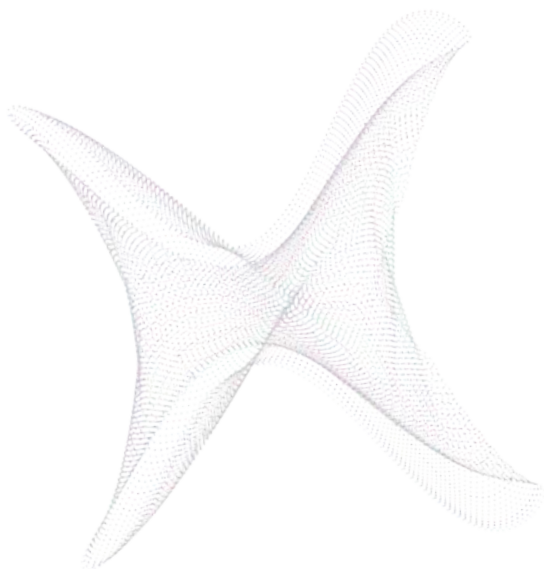
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@SALTISE et utiliser le hashtag #SALTISE2019



Find us on Facebook:  
[www.facebook.com/SALTISE/](http://www.facebook.com/SALTISE/)



Visit our website at: [www.saltise.ca](http://www.saltise.ca)



## Registration & Information / Inscription et information

- Cinéma Cineplex Forum main floor - 8h00 - 9h30
- After Morning Keynote - Atrium - 2<sup>nd</sup> floor Dawson College (In front of central escalator)

### KEYNOTES

- MORNING keynotes (Day 1 & Day 2) will take place in the Cinéma Cineplex Forum auditorium #3, AVX (main floor).
- AFTERNOON keynote (Day 1) and panel discussion (DAY 2) will take place at the Dawson College theatre.

### CONFERENCE SESSIONS:

- Dawson College (see schedule for room assignments)

### POSTER SESSIONS & KIOSKS:

- Atrium - 2<sup>nd</sup> floor Dawson College

### HEALTH REFRESHMENT BREAKS:

**Monday 11h25 - 11h35 & Tuesday 11h25 - 11h45**

- Station 1: 3<sup>rd</sup> floor across 3F.39
- Station 2: 3<sup>rd</sup> floor across 3F.38
- Station 3: Dawson College Theatre lobby

### WINE AND CHEESE RECEPTION & AWARDS CEREMONY:

- Atrium - 2<sup>nd</sup> floor Dawson College

## Commitment to Sustainability / Engagement de durabilité

Working in compliance with Sustainable Dawson, SALTISE is reviewing the social, economic, and environmental factors involved in the organization of this year's conference. Our goal is to create a more sustainable event that addresses a bold objective from the 2016-2021 Dawson College Strategic Plan: to be a leading post-secondary institution in promoting sustainability in all its endeavours. SALTISE has adopted a number of measures to reduce its ecological footprint as much as possible, such as:

- Going plastic-free by not using plastic name badges - The attendees' name tags will be made of seed paper, a special paper that is made using post-consumer materials and is embedded with non-GMO carrot seeds. When you plant the paper in a pot of soil or outside in a garden, the seeds in the paper germinate and grow a crunchy bundle of carrots!
- If you do not plan to plant your name tag, please return it to a volunteer so we can plant the seed papers in our edible gardens at Dawson College.
- Reusing lanyards - SALTISE is getting lanyards with neither printed messages nor logos, so we can reuse them at different events. Please return your lanyard to a volunteer!
- In order to reduce the use of paper and directly involve attendees in our sustainability policies, we included the option for registrants to not require a printed program. We are happy to share that less than 15% of registrants have requested a printed version of the program. This means that we are saving about 7,650 paper sheets and reducing the water footprint to an average of 9,450 litres of water\* rather than using some 63,000 litres had all the registrants requested a printed program! Well done, everyone!
- Carpooling is a more environmentally friendly way to travel, as sharing journeys reduces air pollution, carbon emissions, traffic congestion on the roads, and the need for parking spaces. SALTISE has encouraged a number of educational institutions at a distance to arrange carpooling, as well as to financially support those wishing to take public transportation. John Abbott College, for example, is coordinating ride sharings as well as providing STM tickets for their members. Heritage College is once again chartering a bus to send its delegates to the SALTISE Conference.



\*Calculations made based on "The green and blue water footprint of paper products: Methodological considerations and quantification", UNESCO - Institute for Water Education, 2010.

## About SALTISE

SALTISE - SUPPORTING ACTIVE LEARNING & TECHNOLOGICAL INNOVATION IN STUDIES OF EDUCATION is a professional learning community made up of educators from both English and French institutions within the Greater Montreal area, and beyond. Our community of post-secondary instructors, educational researchers, educational/faculty developers and instructional designers are brought together because of our shared goals of advancing evidence-based pedagogies and educational technologies to promote deeper learning, which in turn closes achievement gaps, supports students' academic success and perseverance through the post-secondary levels.

SALTISE owes its development and expansion to the financial support of the Entente Canada-Québec (ECQ), funded through the Ministère de l'Éducation et de l'Enseignement supérieur. Importantly, SALTISE owes its start to the efforts of a consortium created by a two-year project involving science faculty and educational researchers from four Montreal area educational institutions: Dawson College, John Abbott College, Vanier College and McGill University.

## À propos de SALTISE

SALTISE - SUPPORTING ACTIVE LEARNING & TECHNOLOGICAL INNOVATION IN STUDIES OF EDUCATION (SOUTENIR L'APPRENTISSAGE ACTIF ET L'INNOVATION TECHNOLOGIQUE PAR LA RECHERCHE EN ÉDUCATION) est une communauté d'apprentissage professionnelle composée d'éducateurs provenant d'établissements d'enseignement supérieurs francophones et anglophones originaires de la grande région de Montréal ainsi que d'autres régions du Québec. Cette communauté d'enseignants, de chercheurs en éducation et de concepteurs de matériel didactique se rassemble autour d'objectifs communs : mettre en œuvre des innovations pédagogiques reconnues et des technologies éducatives afin de promouvoir un apprentissage profond, tout en soutenant la réussite des étudiants et leur motivation durant leurs études post-secondaires.

SALTISE doit sa création et son développement à une subvention d'Entente Canada-Québec, relative à l'enseignement dans la langue de la minorité et à l'enseignement des langues secondes (ECQ), Ministère de l'Éducation et de l'Enseignement supérieur. Cette bourse inclut une subvention de 3 ans (2013-2017), ALPIC, accordée au Collège Dawson et, plus récemment (2017-2019), au projet SALTISE/S4 (S4 = Systems Supporting Student Success) pluriannuel. SALTISE a été mis sur pieds grâce à un consortium rendu possible par une subvention de 2 ans « Chantier 3 inter-order » du Ministère de l'éducation (Ministère de l'Enseignement supérieur, de la Recherche, de la Science

et de la Technologie). Ce consortium est composé du corps professoral de sciences et de chercheurs en éducation provenant de quatre établissements d'enseignement de la région de Montréal : le Collège Dawson, le Collège John Abbott, le Collège Vanier et l'Université McGill.

Currently, SALTISE extends its resource development, knowledge mobilization innovations and community-based efforts to over 1500 educators, primarily from Quebec colleges and universities, including English and French institutions. Its expanding website (<https://www.saltise.ca/>) now consists of dozens of resources and tools that support the implementation of instructional innovations; as well as aims to provide a venue for our community to make connections and engage in conversations around topics of educational research and practice.

Through its Mini-Grants Program, it supports educational practitioners who wish to develop methods and technologies to increase students' learning. Finally, SALTISE hosts international and national scholars, and provides opportunities for local experts to share best practices in the area of active learning pedagogy and the use of technology through the annual conference.

À l'heure actuelle, SALTISE, par son développement de ressources, ses innovations en matière de partage des connaissances et ses efforts communautaires, rejoint plus de 1500 éducateurs provenant principalement d'universités et de cégeps québécois anglophones et francophones. Son site Web qui ne cesse de se développer (<https://www.saltise.ca/>) offre à présent une douzaine de ressources et d'outils pour mettre en œuvre des innovations pédagogiques. Le site héberge la communauté SALTISE lui permettant d'établir des liens, d'échanger des pratiques pédagogiques et de partager des recherches en éducation.

Grâce à son programme de mini-bourses (Mini-Grants Program), SALTISE soutient des éducateurs qui souhaitent mettre au point des méthodes et des technologies visant à améliorer l'apprentissage des étudiants. Enfin, dans le cadre de sa conférence annuelle, SALTISE accueille des chercheurs canadiens et internationaux, offrant ainsi aux spécialistes locaux l'occasion de discuter et d'échanger des pratiques exemplaires en pédagogie active et concernant l'utilisation des technologies éducatives durant sa conférence annuelle.



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## 2019 SALTISE Conference Committee

### Comité organisateur de la conférence SALTISE

#### *2019 Conference Coordinators*

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Myriam Dimanche (SALTISE), Maria Orjuela-Laverde (McGill, eLATE)

#### *2019 Conference Assistants*

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Suéli Bonafim (SALTISE), Lorraine Chiarelli (SALTISE)

#### *2019 Conference Planning Committee*

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##### **AWARD SELECTION SUB-COMMITTEE**

Azra Khan (Chair, Dawson), Carol Hawthorne (Concordia), Brenda Lamb (John Abbott), Murray Bronet (John Abbott)

##### **LOGISTICS SUB-COMMITTEE**

Myriam Dimanche (SALTISE), Suéli Bonafim (SALTISE), Lorraine Chiarelli (SALTISE)

##### **PROGRAM SUB-COMMITTEE**

Michael Dugdale (Chair, John Abbott College), Elizabeth Charles (SALTISE)

##### **PROPOSAL SELECTION SUB-COMMITTEE**

Anastassis Kozanitis (UQAM), Eva Mary Bures (Bishop's University), Diane Querrien (Concordia University), Carolyn Samuel (McGill University), John Bentley (Concordia University), Maria Orjuela (McGill University), Michael Dugdale (John Abbott College), Eric Francoeur (ÉTS), Alexandra Luce

##### **KEYNOTE COMMITTEE**

Joel Trudeau (Dawson), Rob Cassidy (Concordia)

#### *SALTISE Executive Members*

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##### **CO-DIRECTORS:**

Elizabeth (Liz) Charles (Dawson College) & Nathaniel Lasry (John Abbott College)

##### **MEMBERS:**

Murray Bronet (John Abbott College), Kevin Lenton (Vanier College), Ken Ragan (McGill University), Rob Cassidy (Concordia University, CTL), Maria Orjuela-Laverde (McGill University, eLATE)

#### *SALTISE Advisory Board*

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Roya Abouzia (Heritage College), Pierre Bourque (ETS), Philippe Caignon (Concordia University), Rob Cassidy (Concordia, CTL), Elana Cooperberg (Vanier College), Odette Coté (Champlain Regional College), David Hoida (Vanier College), Brenda Lamb (John Abbott College), Catherine LeBel (Dawson College), Hélène Meunier (UQAM), Bruno Poellhuber (Université de Montréal), Laura Winer (McGill, TLS)

#### *Associate Members*

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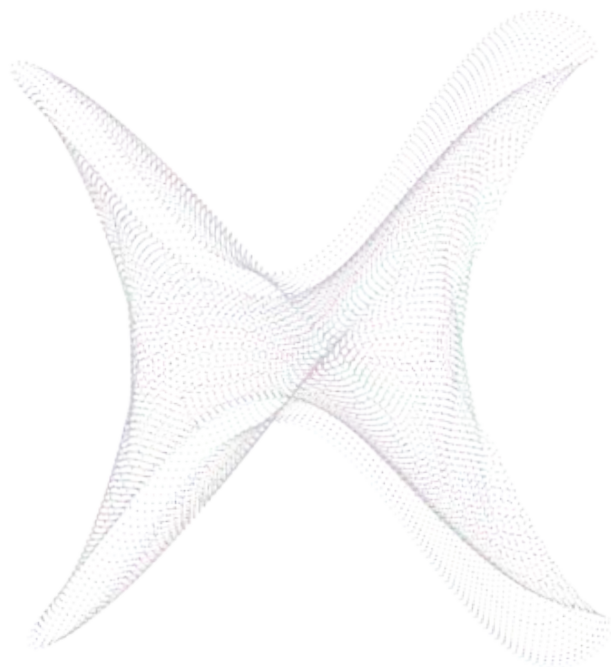
##### *Dawson ALC - Active Learning Community*

Chris Whittaker (Co-Coordinator), Catherine Payne, Andreea Mihaela Stanciu-Panait, Cory Legassic  
PÉRISCOPE - Thérèse Laferrière (Université de Laval)

#### *Technical and Logistics Support*

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Graphic Design (Program & Posters): Isabelle Kalekas  
Web Support at Dawson College: Jonathan Perlman & Chris Georgieff  
Translation: Laetitia Desanti





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## Mot de bienvenue de Richard Filion Directeur général du Collège Dawson

C'est avec un plaisir renouvelé que je souhaite la plus cordiale bienvenue à l'ensemble des participants qui nous font l'honneur de leur présence à l'occasion de la huitième conférence annuelle de SALTISE.

Le succès grandissant des activités de SALTISE ne se dément pas, à preuve le nombre croissant de personnes du milieu collégial et universitaire qui s'y investissent et s'intéressent aux questions se rapportant aux pédagogies innovantes. Ces questions ne sont pas banales et témoignent de la volonté bien affirmée, à l'heure de la révolution numérique, de faire évoluer nos systèmes éducatifs dans le sens d'une plus grande pertinence à l'égard des enjeux et défis qui interpellent et pressent de toutes parts le monde de l'enseignement.

Depuis plusieurs années déjà, SALTISE met l'accent sur l'usage intelligent et scientifiquement fondé des technologies

éducatives au service de l'apprentissage actif. L'irruption massive des technologies associées au numérique et à l'intelligence artificielle dans l'univers de la formation et de la production rend d'autant plus nécessaires une recherche et une réflexion ayant pour finalité l'évolution des moyens d'enseignement et des méthodes pédagogiques favorisant l'apprentissage profond. C'est pourquoi je me plais à dire qu'à l'heure de la révolution numérique, il nous faut mettre au point une Éducation 4.0!

C'est ce à quoi SALTISE s'affaire depuis maintenant presque une décennie et encore cette année, la conférence propose des thèmes et des ressources qui sauront certes inspirer le changement souhaité et fournir des pistes pour le mettre en œuvre.

Excellente 8<sup>ième</sup> conférence à toutes et tous!

**Richard Filion**  
*Director General*  
*Dawson College*



## Welcome to SALTISE 2019 Conference from the Academic Dean Diane Gauvin

Welcome to Dawson College.

I take great pleasure in welcoming you to the 8<sup>th</sup> Annual SALTISE Conference. In this year marking Dawson College's 50<sup>th</sup> anniversary, hosting this conference provides an eloquent statement of how

much the college has accomplished and aspires to accomplish in the domain of post-secondary education.

The SALTISE conference serves as an important occasion in the academic year when educational researchers, innovators and practitioners from colleges and universities within and outside Quebec can come together to share, exchange and network. Regardless of your area of specialization, you share common interests in designing, implementing and researching pedagogical innovation to support deeper student engagement and learning.

Given the theme of this year's conference, "Promoting Deeper Learning: From Analytics to New Strategies", you will have ample opportunity to explore richer contexts for student learning, and the different kinds of challenges they present. The two-day program offers more than sixty exciting and thought-provoking sessions, on topics ranging from examples of classroom practice to the analytics of learning outcomes, from e-learning to maker education, from the educational benefits of extra-curricular projects to future learning spaces.

Dawson College is proud to support the work of SALTISE and to assist in creating this opportunity to help shift the horizons of what is possible in teaching and learning. I wish you all a very successful conference.

**Diane Gauvin**  
*Academic Dean*  
*Dawson College*

## Welcome Message from the Dean of Academic Development Catherine LeBel



I welcome you to Dawson College for the eighth edition of the SALTISE conference. Dawson College, founded 50 years ago, has a long-standing tradition of supporting research and innovation. The creativity, passion, innovative spirit of the community and its drive towards knowledge creation and dissemination is visible in many endeavors. It is therefore with enthusiasm that

we host the SALTISE network of innovators and researchers.

To further the advancement of knowledge, events such as this conference are a significant venue where faculty and professionals can share their experiences, findings and expertise. Our students are changing, technology is evolving at a fast pace. To teach 21<sup>st</sup> century skills to our students, to embrace effective pedagogical approaches, to implement new technologies soundly, the educational community benefits from this conference where each participant can discover, discuss, try out, exchange, and build relationships. The network created by SALTISE provide opportunities for connections, growth and sharing of knowledge valuable for all our institutions.

This year's wonderful programming offers a roster of inspiring keynotes and speakers. It will undoubtedly foster thoughts, ideas, new projects and collaborations amongst the participants. Beyond the conference, I encourage you to explore the SALTISE website, where you will find evidence-based resources on strategies and approaches, workflows of active learning actives, articles, news and more.

I thank the keynotes and speakers for their dedication and willingness to share their expertise and experiences. I want to acknowledge the work of the volunteers and the College' staff who help make the conference a reality. To the organizers, congratulations for putting together such an event and seeking to enrich the experience of the educational community.

Enjoy the conference, our College and beautiful gardens!

### **Catherine LeBel**

*Dean of Academic Development*

*Directrice adjointe, Développement académique*

*Dawson College*

## Welcome from the 2019 SALTISE Conference Committee

The SALTISE Conference Committee welcomes you to the 8<sup>th</sup> Annual Conference, “Promoting Deeper Learning: From Analytics to New Strategies”.

We extend our sincere appreciation to our host, Dawson College, and to the Departments and Services that have played a significant role in making this year's conference possible. SALTISE acknowledges the importance of the individuals who have played a leading role in helping us to navigate the institutional systems. We also thank our partner institutions for their generous financial contributions. Lastly, we deeply appreciate your continued support of the SALTISE community.

This year the Conference Committee has put together an exceptional program. In particular we have recruited a roster of keynote and panelist on the exciting topics of augmented intelligent tools stemming from innovations in Artificial Intelligence, Learning Analytics, Virtual Reality and Natural Language Processing. Additionally, our presentations feature speakers from the world of educational research and practice, reporting on their findings from both principled implementations of evidence-based pedagogies and formal research. In total, the program consists of over 75 thoughtful presentations including symposia, individual talks, interactive sessions and posters, and workshops.

We wish you a productive 2 days of thinking and sharing your experiences and thoughts on these provocative growing fields. Above all, we hope you will enjoy this opportunity to come together, to learn from each other, to celebrate our collective successes and strengthen our network.

Enjoy the Conference!

Sincerely,

**Elizabeth (Liz) Charles  
& Nathaniel Lasry**  
Co-Directors, SALTISE



## Mot de bienvenue du comité organisateur

Le comité organisateur du colloque annuel SALTISE vous souhaite la bienvenue à la 8<sup>e</sup> édition intitulée : « Promouvoir un apprentissage plus approfondi : de l'analyse aux nouvelles stratégies ».

Nous tenons à exprimer notre reconnaissance à notre hôte, le Collège Dawson ainsi qu'aux départements et services qui ont joué un rôle crucial et dans l'organisation de la conférence. SALTISE tient à saluer l'importance des individus qui ont contribué significativement à nous aider à naviguer dans le système institutionnel.

Tout d'abord, SALTISE souhaite remercier l'entente Canada-Québec SALTISE /S4 Project, pris en charge par le Collège Dawson. Nous voudrions aussi remercier nos partenariats institutionnels pour leurs généreuses contributions financières. Nous tenons à saluer tout particulièrement les départements et services suivants : la faculté d'ingénierie de McGill, la faculté des Sciences, Teaching and Learning Services (TLS), Tomlinson Project in University-Level Science Education (T-PULSE), et l'Office of Student Life and Learning ; et le bureau du directeur académique aux collèges John-Abbott et Dawson ainsi que l'Université Concordia et son Centre for Teaching and Learning (CTL). Enfin, nous apprécions grandement votre soutien continuellement renouvelé à la communauté SALTISE.

Cette année, le comité de la conférence a été en mesure de proposer un programme exceptionnel. Nous avons notamment

pu inviter un conférencier principal ainsi qu'un intervenant qui vont aborder les sujets suivants : des outils intelligents de réalité augmentée issus d'innovations dans le domaine de l'intelligence artificielle, de l'analyse de l'apprentissage, de la réalité virtuelle et du traitement naturel du langage. En outre, nos conférenciers issus du domaine de la pédagogie vont présenter les conclusions de leurs recherches ou de leur implantation de principes pédagogiques basés sur des données factuelles.

Au final, nous proposons plus de 75 présentations ingénieuses incluant des symposiums, des conférenciers individuelles, des séances et affiches interactives ainsi que des ateliers.

Nous vous souhaitons 2 journées de réflexion et de partage productifs à propos de ces domaines en pleine effervescence. Par-dessus tout, nous espérons que vous apprécierez l'occasion de vous rassembler, d'apprendre les uns des autres et de célébrer nos réussites collectives, tout en accroissant notre réseau.

Cordialement,

**Elizabeth (Liz) Charles & Nathaniel Lasry**  
Bonne conférence!

## 2019 SALTISE Best Practices & Pedagogical Innovators Award Prix d'excellence et d'innovation pédagogique

**NADIA NAFFI**  
*Concordia University*

With over 20 years of experience in the development, delivery and evaluation of synchronous and asynchronous experiential learning activities, Nadia Naffi was nominated for her forward thinking in her design of innovative activities for her students.



Nadia purposefully networks with traditional employers, start-ups and the AI ecosystem in Montreal to design better experiences for instructional designers in training, through her courses. She teaches face-to-face and online at Concordia and at UOIT, and consistently demonstrates her dedication to students. In her first year of appointment at Concordia, Nadia designed sandbox experiences with various instructional technologies, she revamped the labs for two core courses with state-of-the-art technologies, such as 3D printing and virtual reality, and added innovative pedagogical activities such as workshoping assignments before handing them in, iterative formative evaluation, and online professional portfolios to prepare students for their internships. Nadia's community outreach and dissemination of her work includes presenting at scientific conferences about pedagogical innovations. She is consistently engaged in professional development to foster deep learning in her students, including problem-based learning, flipped classrooms, technology-enhanced teaching, hands-on learning, experiential learning, BYOD and learning through offering peer feedback. The energy she invests in her courses is inspiring for her colleagues and make her students feel very respected.

Nadia's past awards include The Governor General's Gold Medal – Person and Society (2018) and the Media Outreach Award for Graduate Research Communicator of the Year (2016-2017). Congratulations Nadia Naffi!

**YANN BROUILLETTE**  
*Dawson College*

Yann Brouillette obtained his Ph. D. in organic chemistry from Université de Montpellier in 2008. A chemistry professor at Dawson College since 2009, he has been a devoted member of the Dawson Active Learning Community, an online pedagogical tool developer, as well as an active educational researcher. He is the Quebec regional director of the College Chemistry Canada association, guest-lecturer, and creator of the YouTube channel "Chem Curious" through which students actively engage with laboratory experiments.



In 2014, he created the new complementary course for non-science students entitled "Comic Book Chemistry" where he uses situations, superheroes, and other characters depicted in graphic novels to explain basic chemistry. With the help of student illustrators, he created a free Periodic Table Colouring Book for toddlers and donated copies to the Dawson Daycare.

Yann's deep-rooted passion and interests in using innovative technology-based learning activities (SMART board, myDALITE and Perusall) have significantly raised the level of students' overall engagement, satisfaction and success. Performance of students in the Organic Chemistry I course now post a perennial 99.9 % course pass-rate, as opposed to a 50% historical pass-rate.

Evidence of Yann's commitment has been recognised by his winning of numerous teaching awards in the past: 2017-18 Dawson College Director General's Award for Teaching Excellence, the 2018 College Chemistry Canada Editor's Award, and the 2017 SALTISE Mentorship Award as well as by his numerous publications on his Comic Book, Video, and active learning pedagogies.



**DOMINIQUE PIOTTE***Ecole de Technologie Supérieure (ÉTS)*

Diplômée de l'École Polytechnique de Montréal, Dominique Piotte a débuté sa carrière dans le génie conseil, participant, entre autres, à plusieurs études d'impact de projets sur l'environnement. Par la suite, elle s'est tournée vers l'enseignement, d'abord au Cégep de Saint-Laurent en Techniques de l'eau, de l'air et de l'assainissement, puis, depuis 1999, à l'École de technologie supérieure. À titre de maître d'enseignement au Service des enseignements généraux, elle est responsable du cours de tronc commun au baccalauréat en ingénierie CHM131 Chimie et matériaux, en plus de dispenser des cours de physique mécanique, de thermodynamique et de mécanique des fluides.

L'amélioration de l'apprentissage chez les étudiants est au cœur de ses préoccupations d'enseignante. En particulier, elle cherche à adapter les méthodes d'enseignement au profil de l'apprenant. Ainsi, puisque les étudiantes et étudiants de l'ÉTS proviennent en grande majorité du secteur technique collégial, elle s'appuie sur leur intérêt pour la manipulation d'objets et les technologies pour leur rendre le savoir scientifique accessible. Dans le cadre du cours CHM131 notamment, elle a transformé une classe ordinaire en un cours axé sur l'apprentissage actif au moyen de micro-laboratoires et de situations d'apprentissage créées à partir de contextes d'ingénierie.

Passionnée par la pédagogie universitaire, elle explore sans cesse de nouvelles approches, comme l'évaluation formative à l'aide de télévotants (clickers) et l'examen collaboratif (two-stage exam). Elle partage aussi avec enthousiasme ses méthodes auprès de ses collègues et dans la communauté, par des présentations dans divers forums (SALTISE, SAPES, ADMEE, AIPU).

**ROBERTA SILEROVA***John Abbott College*

Roberta completed a BSc in Chemistry at McGill in 1986, then went to the University of Toronto for an MSc (1988), and then came back to McGill for a PhD (1992). She worked as a post doctoral fellow in Mainz, Germany, at the Max-Planck-Institute for Polymer Research.

Roberta's pedagogic, academic, curricular, and institutional commitments at John Abbott College are extensive and wide-ranging; new course design and implementation, classroom management, program coordinator, active learning advocate, High School Outreach representative, board of governors representative, Honours Science coordinator & Science Program coordinator, amongst other initiatives. The principal focus of her pedagogical approach is to integrate classroom "learning" with the "real research" world, and as such had advocated for a new Capstone Independent Research course that would be cross-disciplinary and multi-faceted. She leads this Science Option course, exposing students to various research opportunities within industry and academia. Roberta's involvement and dedication to pedagogical innovation is most visible in her classroom. Roberta uses an active engagement and/or student-centered pedagogical model to foster deep learning and understanding. She engages personal response devices, or clickers, with Mazur's peer interaction technique to test conceptual understanding, and provide immediate feedback to both students and herself on their level of comprehension. Roberta has also embarked on the creation of video lectures to complement material covered in class; so greatly appreciated by her students!



## Past recipients of the SALTISE Best Practices & Pedagogical Innovators Award

**2018**

- Louis Normand (Collège de Rosemont)
- Claire Trottier (McGill University)

**2017**

- Ann-Louise Davidson (Concordia University)
- Michael Dugdale (John Abbott College)
- Karl Laroche (Vanier College)

**2016**

- Marielle Beauchemin (Vanier College)
- Jean-François Brière (Dawson College)
- Lynda Gelston (John Abbott College)
- Rosemary Reily (Concordia University)

**2015**

- Rhys Adams (Vanier College)
- Samantha Gruenheid (McGill University)
- Lawrence R. Chen (McGill University)

**2014**

- Kevin Lenton (Vanier College)
- Sean Hughes (John Abbott College)

**2013**

- Edward Awad (Vanier College)
- Murray Bronet (John Abbott College)
- Chris Buddle (McGill University)



## Lifetime Achievement Award Reconnaissance pour l'ensemble de la carrière

For the second time in its eight year history the SALTISE Executive has selected two individuals to receive the SALTISE Lifetime Achievement Award – **Dr. Robert (Rob) Cassidy** (Director of the Centre for Teaching & Learning at Concordia University) and **Dr. Maria Orjuela-Laverde** (Academic Associate at Teaching and Learning Services and the Coordinator of the Enhancing Learning and Teaching in Engineering (eLATE) project at McGill University).

It is most fitting to honour both individuals at the same time because each has supported SALTISE and its efforts in exceptional ways at their respective institutions. Their sustained efforts and recruitment of faculty has made a monumental and positive impact on the growth of our initiatives and membership.



**ROB CASSIDY**, is currently the Director of CTL, after holding the position of Assistant Dean of the Office of Academic Development at Dawson College for 3 years. He has been a staunch supporter of SALTISE in both these roles. In addition to taking on the challenges involved in hosting our Annual Conference (2017) at Concordia, his efforts to connect CTL with the larger

Higher Ed community across Montreal have brought his team closer to SALTISE resulting in the exponential growth of co-designed opportunities and collaborations with his staff. In doing so, there is true hope for the sustainability of the Community.

**MARIA ORJUELA-LAVERDE**, has been an Academic Associate at McGill's Teaching and Learning Services (TLS) and the Pedagogical Coordinator of eLATE, a community within the Faculty of Engineering committed to promoting excellence in teaching and learning enhanced by evidence-based practices. Maria has worked closely with SALTISE to develop new systems and methods for faculty development including joint workshops and symposia, and championed initiatives that leverage the special talents of both Engineering faculty and SALTISE members from all institutions – myDALITE, S4/Grad Students, to name a few. Most recently, with McGill as host of the 2018 Conference, she worked tirelessly with many colleagues to make the 7th Annual event an outstanding success that reached over 425 participants. Her lively spirit, "can-do" attitude and fearlessness has made SALTISE a common name among faculty at McGill, in Engineering, the Faculty of Science and Teaching and Learning Services (TLS).



What makes these two individuals particularly special is they both share the vision and values of SALTISE, as a community. They value the co-design and collaboration among practitioner and researcher, and champion the exploration of new ways to meet the learning needs of instructors and students through principled practice. For this, we are forever grateful!

### Past recipients of the Lifetime Achievement Award

#### 2018

- Thérèse Laferrière (Université Laval)

#### 2017

- Erich Schmedt (John Abbott College)
- Richard Filion (Dawson College)

#### 2016

- Kenneth Ragan (McGill University)

#### 2015

- James Slotta (OISE)

#### 2014

- Silvia d'Apollonia (Dawson College)

## Keynote Speakers / Conférenciers

### Keynote Speaker (1)

#### **ALYSSA WISE**

New York University (NYU) Steinhart School of Culture, Education and Human Development and Director of LEARN (Learning Analytics Research Network)



Dr. Alyssa Wise is Associate Professor of Learning Sciences and Educational Technology at New York University and the Director of LEARN, NYU's pioneering university-wide Learning Analytics Research Network. Dr. Wise's research is situated at the intersection of the learning and educational data sciences, focusing on the design of learning analytics systems that are theoretically grounded, computationally robust, and pedagogically useful for informing teaching and learning. She currently serves as Co-Editor-in-Chief of the Journal of Learning Analytics and Associate Editor of the Journal of the Learning Sciences.

### Keynote Speaker (2)

#### **OLIVIER PALMIERI**

Game Director & Director of XR Workshop, Ubisoft Montreal



Olivier Palmieri is a Game Director at Ubisoft, where he has worked as Creative Director, Game Director, and Level Design Director, and advanced International Design Trainer for the Ubisoft Design Academy. He is the creator of Eagle Flight, the first virtual reality game released by Ubisoft and winner of the 2017 D.I.C.E. Award for Immersive Reality Technical Achievement. Olivier is the Director of L'Atelier XR Ubisoft, an applied innovation zone that develops projects using Extended Reality technologies (Augmented, Virtual and Mixed Realities) in collaboration with Concordia University. Olivier believes strongly in the power of extended reality environments as experiential learning tools and is excited to imagine the possibilities of XR learning environments.

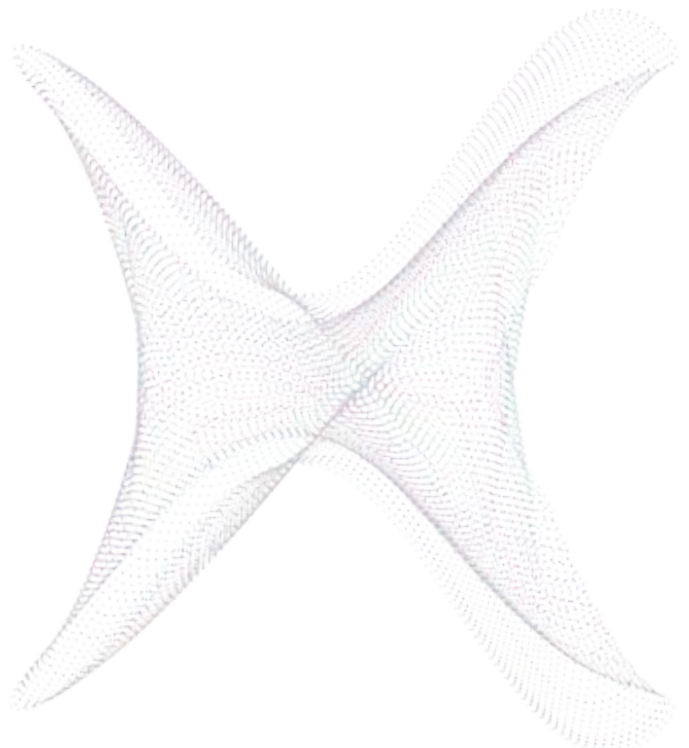
### Keynote Speaker (3)

#### **DAVID USHER**

Reimagine AI, founder



David Usher is an entrepreneur, artist, and best-selling author. He is the founder of Reimagine AI, an artificial intelligence creative studio working with companies like Google Brain and focused on building intelligent beings using interactive artificial intelligence technology. As a musician he has sold more than 1.4 million albums, won 4 Junos and has had #1 singles singing in English, French and Thai. David travels the world speaking about creativity, innovation and artificial intelligence to companies like Google, 3M, Cisco, Pepsi and Deloitte.



# 2019 Schedule at a glance / Résumé du programme

Monday, June 3, 2019

08h00 – 08h30	Registration							
08h30 – 08h50	Opening Address							
08h50 – 09h55	<p>Keynote</p> <p><i>The Analytic Future of Science Education</i></p> <p>Alyssa Wise (NYU)</p> <p>(Cinéma Cineplex Forum)</p>							
09h55 – 10h15	Break and Travel							
10h15 – 11h25	<p><b>Connecting Research &amp; Practice</b> Session A1 (Symposium) (3F.5)</p> <p>Applying the scholarship of teaching and learning in classroom practice</p> <p>Monica Lopez (Marlborough) David Jones, Andrea Rosenfield, Yuan Chen, Esat Ozyonun, David W. Price, Saul Carliner (Concordia)</p>	<p><b>STEM: Tools and Strategies</b> Session A2 (3H.17)</p> <p>OCLaRE, the Online Collaborative Lab Reporting Environment—an Update on Development</p> <p>Petra Turkewitsch (GIM) Michael Dugdale, Murray Bronek (JAC)</p> <p>Content Sequencing and Environmental Factors for Improving Student Learning Outcome in Large Freshman Physics Classes</p> <p>Michael Hike, Julian Wray, Ksenia Kolosova, Thomas Rademaker, Ben Dringol, Vincent Comeau (McGill)</p> <p>Using Google Docs in crafting biology laboratory reports: Benefits and challenges for CEGEP biology students and their instructors</p> <p>Neerusha Gokool-Burhoo (McGill), Li Yuan Wang (Concordia), Terry Sarapoulos (Vanier)</p>	<p><b>Ed Tech: E-Learning</b> Session A3 (Symposium) (3F.3)</p> <p>Best Practices in E-Learning (JAC)</p> <p>Daniel Goldsmith, Selma Hamdan, Reisa Levine, Catherine Braithwaite, Chantale Giguere (Dawson)</p>	<p><b>Special Focus: Virtual Reality</b> Session A4 (Dawson Theatre)</p> <p>Virtual Reality, Perception &amp; Learning: The Role of Proprioception in Cognition</p> <p>Michelle Lui (OISE) Martha Mulaly (Carleton) Rhonda McEwen (OISE)</p> <p>Exploring the use of virtual reality in college science classes</p> <p>Sébastien Wall-Lacelle, Christine Marquis (St-Jérôme) Bruno Poellhuber (UdM)</p>	<p><b>Ed-tech: New tools (bilingual)</b> Session A5 (3F.38)</p> <p>Geopositioning in the Active-Learning Classroom: Automating a technique to Improve Teacher Orchestration and Student Engagement</p> <p>Kevin Lenton (Vanier)</p> <p>In the "Flow" Zone - Increasing student engagement and performance in the classroom through Flow</p> <p>Avery Rueb (Vanier) Michael Zuriga (UQAM)</p> <p>Étude de faisabilité pour un portail mutualisé pour la recherche de ressources éducatives numériques (REN) et le dépôt de ressources éducatives libres (REL)</p> <p>Patrice Blanc (YTE) Cathie Dugas (CCMD) Isabelle Laplante (CDC)</p>	<p><b>Ed-tech: Maker Spaces</b> Session A6 (3H.10)</p> <p>Maker Fundamentals: A Journey Into Developing Maker Expertise</p> <p>Ann-Louise Davidson, Nathalie Duponset, Ivan Ruby, Houda Jawhar, Rima Abou-Khalil, Giuliana Cucinelli, Nadia Naffi, Alina Gutierrez (Concordia)</p> <p>Hacking open-source hardware in and out of the classroom</p> <p>Joel Trudeau (Dawson)</p> <p>The challenge of assessment in maker education and design-based learning in formal education</p> <p>Nathalie Duponset, Ann-Louise Davidson (Concordia)</p>	<p><b>Expanding the Role of Students</b> Session A7 (Symposium) (3H.13)</p> <p>The students' perspective on the educational value of extra-curricular projects</p> <p>Hélène Nadeau (Dawson) Sylvia Cox (McGill) Neuroscience Research Group (Dawson) S.P.A.C.E. (Dawson) Members of Space Club (JAC)</p>	<p><b>Special Issues: Research Practice Partnerships</b> Session A8 (Symposium) (3F.37)</p> <p>Driving pedagogical innovation: a new model involving Research Practice Partnerships</p> <p>Rob Cassidy (Concordia) Alain Breuleux (McGill) Jesús Vazquez-Abad (UdM) Magda Miek, Chris Whitaker (Dawson) Michael Dugdale (JAC)</p>
11h25 – 11h35	Health Refreshment Break							
11h35 – 12h45	<p><b>Connecting Research &amp; Practice: Research (bilingual)</b> Session B1 (3F.5)</p> <p>La création d'un cours hybride pour l'enseignement de la dentologie et de l'éthique professionnelle</p> <p>Eric Francoeur (ETS)</p> <p>The development of pedagogical practices in the classroom at the post-secondary level: the results of an action research training</p> <p>Bruno Poellhuber, Normand Roy (UdM)</p> <p>Teaching for the future of instructional designers</p> <p>Nadia Naffi, Ann-Louise Davidson, Jeremy Tangway, Anna Rosenfield, Houda Jawhar (Concordia)</p>	<p><b>STEM: Getting more from Labs</b> Session B2 (3H.17)</p> <p>What makes Labs Successful? A Study of Freshman Undergraduate Labs with N=1800.</p> <p>Benjamin Dringol, Ksenia Kolosova, Thomas Rademaker, Julian Wray, Vincent Comeau, Michael Hike (McGill)</p> <p>Conception of a video-based laboratory in physics education and its effect upon students' understanding of the concept of relative motion</p> <p>Louis Trudel (U. Ottawa) Abdeljalil Mérou (UQAM)</p> <p>Active Learning in Physics Labs: Towards Teaching Critical Thinking and Data Analysis Skills</p> <p>An-Khiol Trinh, Cesar Daniel Rodriguez Rosenbluth, Nicolas Provatas (McGill)</p>	<p><b>Instructional Strategies: Assessing Learning</b> Session B3 (3F.3)</p> <p>Improving Students' Learning: Exam Reflection as a Tool to Boost Students' Metacognitive Skills</p> <p>Ibrahim El Bojrami, Mark Driscoll (McGill)</p> <p>Experiences of implementations of two-stage exams at the University level</p> <p>Alice Cheresies (McGill) Gregor Kos (Concordia) David Tittey-Peloquin (McGill) Elizabeth Charles (Dawson)</p> <p>Peer Learning: Why It's Worth It and How to Easily Implement It</p> <p>Alexander Gainer (U. Alberta)</p>	<p><b>Special Focus: Asking the Right Questions</b> Session B4 (Dawson Theatre)</p> <p>Asking the Right Questions: how different types of questions function during Peer Instruction</p> <p>Kelly Miller (Harvard) Ives Araujo (U. Federal do Rio Grande do Sul) Eric Mazur (Harvard)</p> <p>What types of multiple choice questions stimulate productive peer interaction in and out of the classroom? Lessons learned from two researcher-practitioner teams</p> <p>SALTISE/54 Physics and Chemistry research teams</p>	<p><b>Active Learning: Teaching Language</b> Session B5 (3F.38)</p> <p>Vers la motivation et un apprentissage plus approfondi du FLS : de l'expérience hors cadre au récit numérique</p> <p>Pricca Fenoglio (U. Paris 8) Sarah Anthony, Alida Soucê (McGill)</p> <p>La CLIA, une pratique efficace en classe / Résultats d'une recherche PAREA 2014-2017.</p> <p>Laure Galipeau, Catherine Solet, Elie Konstantinopoulos (Dawson)</p> <p>Using myDALITE to teach French as a second language / L'utilisation de myDALITE pour enseigner le français langue seconde</p> <p>Laelita Desanti (Dawson)</p>	<p><b>Active Learning: Importance of Peers</b> Session B6 (Symposium) (3H.10)</p> <p>Active Learning in the Social Sciences and Humanities: Lessons and Insights on Strategies and Activities</p> <p>Anna-Louise Davidson, Diane Shea, Elliott Kerr, Cory Legassic, Daniel Goldsmith (Concordia)</p> <p>Reflections on Students as Partners in Educational Development Initiatives</p> <p>Simone Tissenbaum, Kira Smith (McGill)</p>	<p><b>Expanding the Role of Students</b> Session B7 (3H.13)</p> <p>Astronomy Outreach - Student Engagement through Mentorship</p> <p>Karim Jaffer, Space Club (JAC) + Members of RASC</p> <p>Sustainable Living: practical skills for lifelong learning</p> <p>Anna Woodrow (JAC)</p>	<p><b>Special Issues: Math Ed</b> Session B8 (Symposium) (3F.37)</p> <p>Active learning designs for calculus II: A learning community approach for seven interconnected smart classrooms</p> <p>Yanhong Li, Xinli Wang (OISE) Naxin Zhao (Northwest Normal University) Jinjun Dai (Central China Normal University) Jim Slotta (OISE)</p> <p>Promoting Deep Learning in Mathematics through active learning</p> <p>Andrea Panait, Mathilde Hitter (Dawson) Charles Fortin (Champlain)</p>
12h45 – 14h00	Lunch and Poster Session							
14h00 – 15h05	<p>Keynote</p> <p><i>Extending Reality, Extending Learning</i></p> <p>Olivier Palmieri (Ubisoft)</p> <p>(Dawson Theatre)</p>							
15h15 – 16h25	<p><b>Connecting Research &amp; Practice: New Models</b> Session C1 (3F.5)</p> <p>The Evolution of Creating a Deep Learning Pedagogy Workshop for Instructors at McGill University</p> <p>Armin Yazdani, Chris Bailey, Dan Petrescu, Faylie Covett, David N. Harpp (McGill)</p> <p>Introducing metacognitive skills for undergraduate students in engineering courses</p> <p>Armin Yazdani, Maria Orjuela-Laverde, Alex Liepins, Nathaniel Gutierrez (McGill)</p> <p>CEGEP and University Teaching: what drives faculty, what holds them back, and how do they cope (a Grounded Theory)</p> <p>David Price, Saul Carliner (Concordia)</p>	<p><b>STEM: Special Issues (bilingual)</b> Session C2 (3H.17)</p> <p>myDALITE for Freshman Mechanics at McGill</p> <p>Oulin Yu, Ken Ragan (McGill)</p> <p>Analyse conceptuelle d'un double questionnaire pour diagnostiquer les conceptions des étudiants du collégial sur les circuits électriques</p> <p>Abdeljalil Mérou (UQAM) Kevin Lenton (Vanier) Louis Trudel (U. Ottawa)</p> <p>Identification en amont des étudiants en pouvant présenter des difficultés d'introduction à la programmation.</p> <p>Anis Boubaker (ETS)</p>	<p><b>Instructional Strategies: Interrupted Case Studies</b> Session C3 (3F.3)</p> <p>Pause for Effect: Using an Interrupted Case Study to Promote Deeper Learning in a Large, Undergraduate Biology Course</p> <p>Heather Fice, Veronique Brule, Tamara Western (McGill)</p> <p>Interrupted Case Study in Biology &amp; Nursing</p> <p>Francesca Thériault (Dawson)</p> <p>Teaching Biotechnology with Case Studies</p> <p>Martha Mulaly (Carleton)</p>	<p><b>Special Focus: Learning Spaces</b> Session C4 (Dawson Theatre)</p> <p>Scripting and Orchestration in Future Learning Spaces</p> <p>Jim Slotta, Michelle Lui, Renato Cavaino (OISE)</p> <p>Responsibility Taking in Future Learning Spaces: A Humanistic Approach</p> <p>Yotam Hod (Haifa)</p>	<p><b>Active Learning: Collaborative Learning &amp; Critical Thinking</b> Session C5 (3F.38)</p> <p>A collaborative digital approach to building primary literature literacy within a framework that fosters critical high-level skills in data analysis and interpretation</p> <p>Revali Maslamani, Berri Jacque (Tulsa)</p> <p>Beyond homework: How to help students engage critically when they are not in class</p> <p>Vanessa Vandergriff (Vanier)</p>	<p><b>Instructional Strategies: Engagement and Motivation</b> Session C6 (3H.10)</p> <p>Addressing the educational frontline: Preparing teachers for a STEAM intervention through a Maker-led activity</p> <p>Ivan Ruby, Ann-Louise Davidson (Concordia) Jorge Sanabria (U. Guadalupe)</p> <p>Fostering the Development of Graduate Students through Engagement in a Learning Community: The BrainReach Initiative</p> <p>Anila Asghar (McGill) Cindy Hovington (Independent researcher) Ying Yuan Huang, Josephine Nalbantoglu (McGill)</p> <p>Good job Pat! How a physics class benefited by providing feedback to a fictional in-class peer</p> <p>S4 Physics research team</p>	<p><b>Special Focus: AI in the College</b> Session C7 (Interactive Symposium) (CoLab 3F.43)</p> <p>AI in College Education</p> <p>Sameer Bhatnagar, Raymond Bourgeois, Jaya Nilakantan, Carl Saucier-Bouffard, Jonathon Sumner, Joel Trudeau (Dawson)</p>	<p><b>Special Issues: Reinventing Labs</b> Session C8 (3F.37)</p> <p>Investigating how students learn by rescuing historical weather data: SALTISE Mini-Grant report</p> <p>Drew Bush (McGill) Victoria Stonosky (DRAW and ACORE Canada) Geoff Pearce (Dawson) Renee Sieber (McGill)</p> <p>Laboratories - A Conceptually Driven Approach to Introductory Physics Labs</p> <p>Franco La Braca (Concordia)</p> <p>Taking the electronics lab outside the classroom</p> <p>Maclean Roubie, Matt Dobbs (McGill)</p>
16h45 – 18h45	Awards Ceremony and Wine and Cheese							

# 2019 Schedule at a glance / Résumé du programme

## Tuesday, June 4, 2019

08h50 – 09h55	Keynote Re-imagining AI: A talk with David Usher David Usher (Reimagine AI) (Cinéma Cineplex Forum)									
09h55 – 10h15	Break and Travel									
	Interactive Sessions									
	Connecting Research and Practice (Bilingual) Session D1 (IE.3)	Special Topic: Controversies (Bilingual) Session D2 (IE.1)	Learning Communities Session D3 (Symposium) (SH.13)	Students as Citizens Session D4 (Symposium) (SH.15)	Expanding the Role of Students Session D5 (Symposium) (SH.17)	Instructional Strategies: Flipped pedagogies Session D6 (Interactive Symposium) (CoLab 3F.43)	STEM: Physics Session D7 (Interactive Session) (SF.37)	Instructional Design Session D8 (Interactive Session) (SF.38)	Active Learning Session D9 (Interactive Session) (SH.16)	Critical Issues Session D10 (Interactive Session) (SF.39)
10h15 – 11h25	Integration of Students and Staff as Partners (SaSaP) Framework in the Office of Science Education at McGill University  Amin Yazdani, Cynthia Feng, Christina Popescu, Torsten Bernhardt, Anita Farmer, Tamara Western, Marcy Slapcott (McGill)	La prépa...pour ou contre?  Dominique Ploffe (ETS)	The Dawson Ecosystem of Learning Communities – A symposium on the common ground and lessons learned across multiple initiatives for creating and sustaining innovative opportunities for learning at Dawson College	Engaging the Student as Citizen: Thinking about Community and Environment to Support Active Learning	Summation of Integrating Students into Freshman STEM Course Re-Design at McGill (2017-2019)	An Adapted Flipped Class Model – Introductory Physics: Electromagnetism	Card-Sorting Reviews for Electricity	Reimagining Online Tools to Support Teaching and Learning in the Classroom	Discussion panels / Role play games in Applied Natural Sciences and Engineering  Liliya Nikolova (UAC)	The Realist Violence Pedagogy: Bringing Artistic Activism into the Classroom
	Diagnostic des conceptions des étudiants : Force et mouvement  Abdeljalil Mérou (UQAM), Louis Trudel (U. Ottawa)	The Smartphone in the Classroom: Teacher's Friend or Foe?	Mary Jorgensen, Alice Havel, Catherine Pichon (Dawson), Laura King (Cégep A-L)			Rebecca Brosseau, Nicolas Provost (McGill)	Patrick Rogers (Montaropolis)	Lorraine Chiarelli (Champlain)	A qualitative analysis of inquiry based learning and teaching (IBTP) in an Environmental science classrooms  Shamugavalli Narayanan (McGill)	Pat Romano, Kim Simard (Dawson)
	Regard systématique sur l'engagement : résultats préliminaires d'une recherche des arts  Séverine Parent, Véronique Lafamme (UQAR)	Plagiarism and Other Code Violations: Drawing Back the Curtain  Lissa Albert, Saul Carliner (Concordia), Monica Lopez (Montaropolis)	Chris Whitaker, Ian Mackenzie, Charlotte Olgum, Catherine Solet, Joel Trudeau, Hélène Nedreau (Dawson)	Anna-Lisa Austin, Diane Rice, Geoffrey Pearce, Mark Beauchamp (Dawson)	AAU STEM Working Group (McGill)		Georgebra in the Physics classroom	Chasing the Puck - Helping you score with Design Thinking	Ink: a Global Educational Network, Workspace for Active Learning, and home for the Saltise community	Reaching new depths: Supporting under-represented students to be educated deeper within their STEM discipline
	Chair:	Chair:	Chair:	Chair:	Chair:	Chair:	Chair:	Chair:	Chair:	Chair:
11h25 – 11h45	Health Refreshment Break and Travel									
11h45 – 13h30	Panel Discussion Augmentation in the Age of AI (Dawson Theatre) Introduction: Richard Fillon, Director General, Dawson College  Panelists Doina Precup (DeepMind Montreal) Abhishek Gupta (Montreal AI Ethics Institute) Olivier Palmieri (Ubisoft) David Usher (Reimagine AI)  Panel Chair: Joel Trudeau (Dawson) Panel Discussant: Jim Slotta (OISE)									
13h00 – 14h00	Special Poster Session Design Thinking and Active Learning (Atrium) Tim Miller and Students (Dawson)									
	Post-Conference 3hr Workshops (14h00–17h00) Deeper explorations into specific topics (Please note that workshops are dependent on registration)									
14h00 – 15h00	Workshop: (SH.13)  This is your brain on active learning: A virtual workshop with practical strategies for your dynamic active learning classrooms  Joan Butlerworth (McGill), Tamara Diehlburn (Montaropolis/EMSB)	Workshop: (SE.1)  Innovate to Teach and Play to Practice: Tips and Tricks for Using Games in Language Learning Classrooms  Mary ElEiyawi (Ain Shams)	Workshop: (SE.3)  Turning the Tables: Using Sorting and Zigzag Strategies to Encourage Student Expertise  Cory Legassic, Caye Payne (Dawson)	Workshop: (SH.15)  Integrating learning portfolios into your teaching: The Messy world of applying active learning strategies  Eva Mary Bures (Bishop's), Teresa M. Hernandez Gonzalez, Pamela Gunning (Concordia), Elizabeth Warwick (CGLP)	Workshop: (SF.37)  myDALITE 101 for beginners  Yann Brouillette (Dawson College)	Workshop: (SF.38)  myDALITE for intermediate users  Sameer Bhatnagar (Dawson College)	Workshop: (SH.17)  Making their entrance your own courses  Gabriel Flacks (Champlain)	Working Group Concept Development (SH.10)  Workflow Maker  SALTISE/54 Researchers OISE Research Team		

SALTISE thanks the following for their generous support of the conference  
SALTISE remercie les personnes suivantes pour leur soutien généreux à la conférence



CENTRE FOR TEACHING  
AND LEARNING



# Conference Program

## Abstracts / Résumés du programme de la conférence

### DAY 1

**REGISTRATION** (08h00 – 08h30)

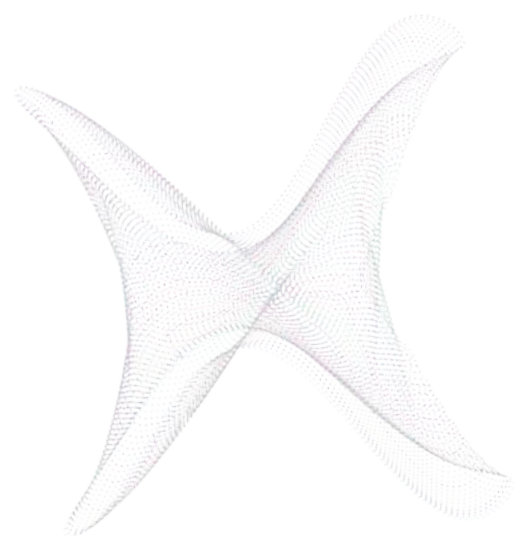
**OPENING ADDRESS** (08h30 – 08h50)

**MORNING KEYNOTE** (08h50 – 09h55)

Location: Cinéma Cineplex Forum

ALYSSA WISE (New York University (NYU) Steinhart School of Culture, Education and Human Development and Director of LEARN, Learning Analytics Research Network) *The Analytic Future of Science Education*

Learning Analytics is an emerging technology that applies data science methods to the distinct characteristics, needs, and concerns of educational contexts to better understand and facilitate learning. But what does the future of analytic-supported science education look like and what benefits can it bring? Drawing on diverse examples from NYU's Learning Analytics Research Network (LEARN), Dr. Wise will illustrate how impactful analytics effectively integrate well-designed data collection, robust computation, and meaningful pedagogical questions to generate actionable insights into teaching and learning.



### MORNING SESSIONS

**SESSION A:** 10h15 – 11h25

#### A.1 Symposium: Connecting Research & Practice

MONICA LOPEZ (Marianopolis College); DAVID JONES, ANDREA ROSENFELD, YUAN CHEN, EZGI OZYONUM, DAVID W. PRICE, SAUL CARLINER (Concordia University) *Applying the scholarship of teaching and learning in classroom practice*

What insights does the research literature offer for handling the challenges that faculty themselves identify as their most common ones? A team from Marianopolis College and Concordia University are conducting a series of integrative literature reviews to find out. Following a brief overview of the project, this session presents what the team has learned about: (a) encouraging academic integrity; (b) choosing and preparing essay tests; (c) facilitating group work; (d) identifying students' prior knowledge; and (e) clarifying the educational backgrounds of international students.

#### A.2 STEM: Tools and Strategies

PETRA TURKEWITSCH (Cégep de la Gaspésie et des Îles); MICHAEL DUGDALE, MURRAY BRONET (John Abbott College); ERIC WALDMAN, NATHAN JASIUKAJC (John Abbott College) *OCLaRE, the Online Collaborative Lab Reporting Environment — An Update on development*

OCLaRE, the Online Collaborative Lab Reporting Environment, is a scaffolding platform that is being developed to help emphasize writing and critical thinking in student lab reports. It does this by having students complete partially written reports, with emphasis placed on making critical analyses rather than repetitive computation and formatting. In this talk, we will briefly review the pedagogical theories underlying this tool, describe some new features that have been added to OCLaRE in the last year, describe future plans, and solicit suggestions from the community.



MICHAEL HILKE, JULIANN WRAY, KSENIA KOLOSOVA, THOMAS RADEMAKER, BEN DRINGOLI, VINCENT COMEAU (McGill University) *Content sequencing and environmental factors for improving student learning outcome in large freshman Physics classes*

We will present some of our most interesting findings based on over 1000 students, in terms of gender differences, origin of students, math ability, group work, the use of online resources and content sequencing. Interestingly, gender differences can be alleviated for students working in groups, while the use of external online resources can be detrimental to student's outcome, in contrast to textbook use. Finally, we designed a new online system to evaluate conceptual change in students by tracking common misconceptions, which will be discussed.

NEERUSHA GOKOOL-BAURHOO (McGill University); LI YUAN WANG (Concordia University); TERRY SARAPOULOS (Vanier College) *Using Google Docs in crafting biology laboratory reports: Benefits and challenges for CEGEP biology students and their instructors*

Google Docs was used to support CEGEP students in working collaboratively and integrating instructors' and their peers' feedback in conceptualizing their biology laboratory reports. To assess the effectiveness of Google Docs, students' grades on their lab reports, and their perspectives on using Google Docs for communicating and writing were analyzed. Findings indicated improvement in their grades and writing skills. The detailed findings and implications of Google Docs will be shared during the presentation.

### A.3 Ed-tech Symposium: E-Learning

DANIEL GOLDSMITH, SELMA HAMDANI, REISA LEVINE, CATHERINE BRAITHWAITE, CHANTALE GIGUERE (Dawson College) *Best practices in e-learning*

Online learning is a new pedagogical frontier that many teachers are increasingly interested in exploring. Our panelists have spent one semester as part of a community of practice researching best practices with e-learning, as well as developing e-learning materials specific to the needs of our disciplines (French, psychology, history, humanities, and cinema/communications). We will share our experiences, present our findings on the benefits and challenges of e-learning, and answer your questions.

### A.4 ☆ Special Focus: Virtual Reality

MICHELLE LUI (University of Toronto); MARTHA MULLALLY (Carleton University); RHONDA MCEWEN (University of Toronto) *Virtual reality, perception & learning: The role of sensorimotor systems in cognition*

Students find it challenging to perceive scientific objects at non-tactile scales, those too small, such as atoms and molecules, and those too large to see, such as galaxy clusters. Educators are recognizing the transformative power of bringing learners to faraway places with immersive technologies, like virtual reality (VR). The purpose of the study is to examine the efficacy of an interactive immersive VR experience to support student learning of a foundational concept in microbiology. We compare the conceptual understanding of students who participate in the VR experience to those who complete a two-dimensional computer simulation of the same process, and those who participate in an in-class explanation of the process. Further, we explore the role of sensorimotor systems and "embodied learning" in supporting a deeper conceptual understanding of molecular processes for students in microbiology.

SÉBASTIEN WALL-LACELLE, CHRISTINE MARQUIS (Cégep de Saint-Jérôme); BRUNO POELLHUBER (Université de Montréal) *Exploring the use of virtual reality in college science classes*

This project consists of exploratory research towards the use of virtual reality simulations in science classes. By exposing students to these simulations and conducting individual and group interviews, we have gained insights on the experience of students in a VR simulation that will be invaluable in building pedagogical scenarios around these simulations.

### A.5 Ed-tech: New Tools (bilingual)

KEVIN LENTON (Vanier College) *Geopositioning in the Active-Learning Classroom: Automating a technique to improve teacher orchestration and student Engagement*

This paper describes the use of a Pozyx decawave positioning system to measure the position of objects and people in active learning classroom activities. Measuring the position of objects allows students to measure and analyze complex motions in the physics classroom. Measuring the position of teachers allows analysis of how and why teachers move in active learning classrooms. Affordances and constraints of the technology will be described as well as examples of both student and teacher applications.

AVERY RUEB (Vanier College); MICHAEL ZUNIGA (Université du Québec à Montréal) *In the “Flow” Zone - Increasing student engagement and performance in the classroom through Flow*

People in flow experiences frequently describe “time flying” or being “in the zone” and “in the groove” (Csikszentmihalyi, 1996). In this hands-on presentation, participants will get to try out the most flow-inducing activities from the 50 classroom exercises that were evaluated by students using the Flow Questionnaire (Webster, Trevino, Ryan, 1993) in this study. Participants will also get to rate some of these same activities with the free, online Flow Calculator ([www.classroomflow.com](http://www.classroomflow.com)) that our team has developed.

PASCALE BLANC (Vitrine technologie-éducation); CATHIE DUGAS (Centre collégial de développement de matériel didactique); ISABELLE LAPLANTE (Centre de documentation collégiale) *Étude de faisabilité pour un portail mutualisé pour la recherche de ressources éducatives numériques (REN) et le dépôt de ressources éducatives libres (REL)*

Présentation de l’« Étude de faisabilité pour un portail mutualisé pour la recherche de ressources éducatives numériques (REN) et le dépôt de ressources éducatives libres (REL) », financé par le Plan d’action numérique du Ministère de l’Éducation et de l’Enseignement supérieur. Les organismes partenaires du réseau collégial, le Centre collégial de développement de matériel didactique (CCDMD), le Centre de documentation collégiale (CDC) et la Vitrine technologie-éducation (VTÉ) souhaitent vous entendre à propos du projet.

## A.6 Ed-tech: Maker Spaces

ANN-LOUISE DAVIDSON, NATHALIE DUPONSEL, IVAN RUBY, HOUDA JAWHAR, RIMA ABOU-KHALIL, GIULIANA CUCINELLI, NADIA NAFFI, ALINA GUTIERREZ (Concordia University) *Maker Fundamentals: A journey into developing Maker expertise*

In this presentation, we will discuss the concept of “Maker Fundamentals” workshops that we created to allow interdisciplinary learners to develop basic and foundational maker expertise. The acquisition of fundamental maker knowledge allows learners to further their skills such as creativity, problem-solving, critical thinking, intellectual risk-taking and resourcefulness, among many others. We will share the events that allowed us to identify the clusters of skills, explain how we collected the data and discuss results from three years of studies around the concept of maker fundamentals.

JOEL TRUDEAU (Dawson College) *Hacking open-source hardware in and out of the classroom*

This presentation concerns work supported with a SALTISE Mini-Grant where learning modules utilizing Arduino, the open-source hardware platform, have been developed and tested in classroom environments. A related hackathon event enlarges the scope of participation and provides a co-curricular perspective on engagement and persistence for these learning activities. We also present progress on work where students explore the platform in a collaborative research setting and the co-development of new learning modules for a variety of laboratory use cases.

NATHALIE DUPONSEL, ANN-LOUISE DAVIDSON (Concordia University) *The challenge of assessment in maker education and design-based learning in formal education*

With its promise to foster 21<sup>st</sup> century skill development in students, maker-led activities are increasingly being integrated into formal education settings. Among the challenges of incorporating maker education into these settings is the issue of assessment. In this presentation, we will discuss gaps in the literature around issues of assessment and identifying and defining the skills and learning objectives of maker education.

## A.7 Symposium: Expanding the Role of Students

HÉLÈNE NADEAU (DAWSON COLLEGE); SYLVIA COX (Dawson College / McGill University); NEUROSCIENCE RESEARCH GROUP (Dawson College), S.P.A.C.E. (Dawson College); MEMBERS OF SPACE CLUB (John Abbott College), *The students’ perspective on the educational value of extra-curricular projects*

Students who have participated in special extra-curricular activities such as S.P.A.C.E. or the Dawson Research in Neuroscience programs will give their own perspectives on the educational benefits of such activities. By bringing together students who are currently in Cégep and involved in these activities with students who graduated in the last five years, the panels will cover the immediate gains and the long-term effects. The picture that will emerge will show very successful ways to develop “soft skills” essential to our future leaders.

## A.8 Special Issues: Research Practice Partnerships

ROB CASSIDY (Concordia University); ALAIN BREULEUX (McGill University); JESÙS VAZQUEZ-ABAD (Université de Montréal); MAGDA MLEK, CHRIS WHITTAKER (Dawson College); MICHAEL DUGDALE (John Abbott College) *Driving pedagogical innovation: a new model involving Research Practice Partnerships*

Research-practice partnerships (RPP) drive pedagogical innovation by bringing together teachers, researchers and instructional designers to codesign learning experiences. They are an effective way to bridge the gap between knowledge generated by educational research and the practical needs of teachers and students. Importantly, RPP positively re-position teachers within the process of system reforms and local professional development efforts, bringing a powerful bottom-up approach to these typically top-down institutional efforts. The RPP paradigm requires new ways of working for the various stakeholders involved. The SALTISE 'S4' team has built resources to support teachers and others to work in these new ways of working as well as infrastructure to produce sustainable, systemic change through RPP work. In this presentation we will describe some of these developments and the value they can add to pedagogical innovation efforts in higher education.

Specific examples of what we will discuss include:

1. RPP work in various disciplinary groups (Chemistry, French, Physics, etc.)
2. Tool development to support RPP work
3. Grad student training programs
4. A model of professional development that involves a PhD in Didactique at the Université de Montréal, Faculty of Education

**Health Refreshment Break: 11h25 – 11:35**

## SESSION B: 11h35 – 12h45

### B.1 Connecting Research & Practice: Research

ERIC FRANCOEUR (École de technologie supérieure) *La création d'un cours hybride pour l'enseignement de la déontologie et de l'éthique professionnelle*

Cet présentation propose un retour d'expérience sur la création et l'enseignement d'un cours en format hybride portant sur la déontologie et de l'éthique professionnelle. Elle couvrira toutes les étapes de son développement (analyse, conception, développement, mise en œuvre et évaluation). Parmi les éléments particuliers qui seront abordés se trouvent le contexte institutionnel de la création du cours, la gestion de l'environnement numérique d'apprentissage, l'expérience des étudiants en ligne et la formation et l'encadrement des enseignants. Les leçons à tirer de cette expérience concluront la présentation.

BRUNO POELLHUBER, NORMAND ROY (Université de Montréal) *The development of pedagogical practices in the classroom at the post-secondary level: The results of an action research-training*

In the midst of the popularity of the flipped classroom approach, professors, researchers and professionals from 4 CEGEPs and 2 universities collaborated on a research-action-training project. We will present its conceptual and methodological frameworks, the training and support that were developed, the diversity of teachers' teaching practices and those that impacted student motivation and engagement, as well as the collaborative follow-up interviews, which have proven a particularly effective means for teachers' professional development.

NADIA NAFFI, ANN-LOUISE DAVIDSON, JEREMY TANGUAY, ANNA ROSENFELD, HOUDA JAWHAR (Concordia University) *Teaching for the future of instructional designers*

Teaching for tomorrow is about delivering a next-generation education that's connected, transformative and fit for the times by providing the experience of exploring real-world problems. Fundamentals of Instructional Design and Human Performance Technology are core courses in the MA in Educational Technology program at Concordia University. In this presentation we detail the process we undertook and the challenges we faced while designing and pilot testing the new lab sections of both courses.

## B.2 STEM: Getting more from Labs

BENJAMIN DRINGOLI, KSENIA KOLOSOVA, THOMAS RADEMAKER, JULIANN WRAY, VINCENT COMEAU, MICHAEL HILKE (McGill University) *What makes labs successful? A study of freshman undergraduate Physics labs with N=1800*

Student conceptual and technical understanding were measured after laboratory sessions and analyzed as a function of group size, roles within the group, and teaching assistant (TA) interaction using multivariate regression. Our work supports enhanced TA training and optimization of individual roles in group settings such as lab work.

LOUIS TRUDEL (Université d'Ottawa); ABDELJALIL MÉTIOUI (Université du Québec à Montréal) *Conception of a video-based laboratory in physics education and its effect upon students' understanding of the concept of relative motion*

Our study aims to identify the various ways students conceive relative motion during their investigation of its properties in a video-based laboratory (VBL). One major challenge for students is to recognize the connection between relative motion and real-life situations. To meet this challenge, VBL encourages teachers to enhance students' problem-solving skills by bringing interesting and complex real-world problems into the classroom and illustrating them realistically. Moreover, according to students, the ease with which the computer produced different types of representations allowed them to test their hypothesis about relative speed more easily and more thoroughly.

ANH-KHOI TRINH, CESAR DANIEL RODRIGUEZ ROSENBLUETH, NIKOLAS PROVATAS (McGill University) *Active Learning in Physics labs: Towards teaching critical thinking and data analysis skills*

We will present a set of revamped labs for McGill University's "PHYS102: Introductory Physics - Electromagnetism" course for which the goal is to promote data analysis and creative problem-solving skills. We will discuss how our new labs address these goals by employing active learning strategies. We will then present our experience with the first roll-out of the labs. We will conclude with feedback from the students and teaching assistants, and we will present our plans for the next iteration.

## B.3 Instructional Strategies: Assessing Learning

IBRAHIM EL BOJAIRAMI, MARK DRISCOLL (McGill University) *Improving students' learning: Exam reflection as a tool to boost students' metacognitive skills*

Acquiring metacognitive skills, i.e. self-assessment and self-regulation of study behaviours, would potentially have long-lasting and concrete positive effects on students' learning. Exam reflections, recently introduced as wrappers, are effective in terms of turning exams into learning tools that guide students to enhance their metacognitive knowledge, especially their self-regulative skills. The purpose of this study was to assess the link between students' performance and study behaviours, and to analyze their metacognitive skills (self-regulation, self-assessment, and goals adjustment).

ALICE CHERESTES (McGill University); GREGOR KOS (Concordia University); DAVID TITLEY-PELOQUIN (McGill University) ELIZABETH CHARLES (Dawson College) *Experiences of implementations of two-stage exams at the University level*

In Two-Stage Exams students are assessed in two phases, each a different modality – individual and group. Unlike traditional tests, the group phase provides opportunities for deeper assessment of students' understanding, which cannot be given in the individual phase. Group questions often require students to apply knowledge to more complex and open-ended problems. In addition, the group phase allows students to give and receive immediate peer feedback on the individual exam just written and encourages the development of collaboration skills. Research shows that this new assessment strategy can be an effective learning experience for students. This presentation by chemistry and physics instructors will describe the experiences of implementing two-stage exams at the university level. We will report on how to make this assessment a natural extension of a framework of peer instruction used throughout the term to foster collaboration among students. The presenters will discuss practical lessons learned as well as results of quality assurance assessments and students' perceptions. Early analyses of learning outcomes suggest students see marks improved by an average of 2-3% for the class. More importantly, there is strong evidence that students enjoy this new form of assessment and seem to be creating new collaborative study habits.

ALEXANDER GAINER (University of Alberta) *Peer learning: Why it's worth it and how to easily implement it*

There is strong evidence that peer learning is an effective way to motivate deeper learning in the classroom. This talk discusses why peer learning is the future of the classroom and how technology makes it easy to implement this new style of teaching and learning, even in large courses. The presenter will examine three new strategies that he uses and how they encourage effective peer learning.



## B.4 ☆ Special Focus: Asking the Right Questions

KELLY MILLER, (Harvard University); IVES ARAUJO (Universidade Federal do Rio Grande do Sul); ERIC MAZUR (Harvard University) *Asking the Right Questions: How different types of questions function during Peer Instruction*

While Peer Instruction was traditionally limited to multiple choice questions due to implementation constraints associated with voting (show of hands, flashcards, early classroom response systems), cloud based delivery systems have made it possible to use open-ended, non-multiple choice questions. We examine student response patterns to different types of questions (multiple choice, numerical, expression, ranking, direction, etc.) asked in-class during peer instruction over several semesters of an introductory physics class at Harvard University. Our research addresses the question: Do certain type of questions better promote learning during Peer Instruction?

SALTISE/S4 PHYSICS AND CHEMISTRY RESEARCH TEAMS *What types of multiple choice questions stimulate productive peer interaction in and out of the classroom? Lessons learned from two researcher-practitioner teams*

Multiple choice questions (MCQ) are traditionally used as an “objective” tool for summative assessments. Accordingly, the literature and resulting design recommendations focus on attaining objectivity and reducing ambiguity. However, a new role for MCQ is emerging, as teachers increasingly use MCQ in formative assessments designed to promote peer interaction, e.g., Peer Instruction and two-stage quizzes. In this role, objectivity is no longer the best measure of a good MCQ. Instead, we need questions that support productive peer discussion and peer learning. In this presentation, our two teams of researcher-practitioners, S4 Chemistry and S4 Physics, will share what we are learning as we collaborate to develop and use good MCQ questions to stimulate peer interaction using the free online asynchronous Peer Instruction tool, *MyDALITE*.

## B.5 Active Learning: Teaching Language

PRISCA FENOGLIO (Université Paris 8); SARAH ANTHONY, ALIDA SOUCÉ (McGill University) *Vers la Motivation et un apprentissage plus approfondi du français langue seconde (FLS) : de l'Expérience hors cadre au récit numérique*

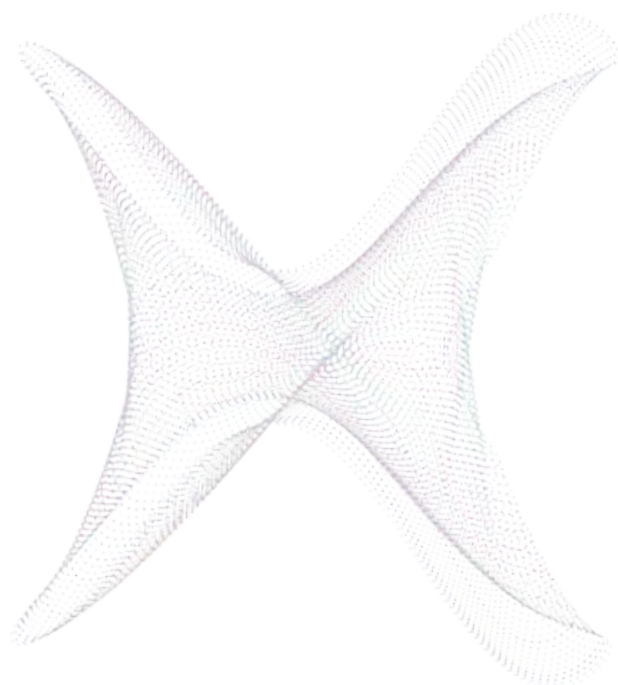
Au sein du projet Inno-moti-vation, nous avons développé un scénario pour des apprenants universitaires de FLS, les amenant à découvrir des ressources numériques de langue française de l'université McGill, à participer à des activités organisées en français sur le campus, puis à relater et partager ces expériences dans un récit numérique oral illustré. Nous présenterons quelques éléments du rapport entre hors cadre, motivation et approfondissement des apprentissages, ce scénario, et le témoignage du professeur l'ayant mis en œuvre.

LAURE GALIPEAU, CATHERINE SOLEIL, EFFIE KONSTANTINOPOULOS (Dawson College) *La Conception universelle de l'apprentissage (CUA), une pratique efficace en classe ! Résultats d'une recherche PAREA 2014-2017.*

Nous présenterons les résultats d'une recherche PAREA sur l'application de la CUA en classe et ses effets sur l'amélioration de l'écrit en français langue seconde. Les données quantitatives recueillies mettent en évidence une amélioration tangible, amélioration d'autant plus élevée que le modèle pédagogique a été apprécié par les étudiants... avec ou sans diagnostic de handicap. La diversité des étudiants est alors entendue et respectée grâce à la CUA. Toute la réflexion qui sous-tendait la création des outils et stratégies peut, aujourd'hui, être transférable à d'autres disciplines.

LAETITIA DESANTI (Dawson College) *Using myDALITE to teach French as a second language / L'utilisation de myDALITE pour enseigner le français langue seconde*

Cette présentation a pour objectif de montrer le potentiel de la plateforme myDALITE pour l'enseignement du français langue seconde (ainsi que des langues et de la littérature en général). L'utilisation de la plateforme pour enseigner la grammaire s'est avérée semée d'embûches, notamment parce que les étudiants des niveaux inférieurs en français ne disposent pas du métalangage pour expliquer adéquatement leurs réponses. Toutefois, en ce qui a trait à l'enseignement de la compréhension écrite et de l'analyse littéraire, nous avons découvert que myDALITE était un outil extraordinaire.





## B.6 Active Learning Symposium: Importance of Peers

ANNA-LIISA AUNIO, GEOFFREY PEARCE, DIANE SHEA, ELLIOTT KERR, CORY LEGASSIC, DANIEL GOLDSMITH (Dawson College) *Active learning in the social sciences and humanities: Lessons and insights on strategies and activities*

What strategies, approaches, and activities are more common in the social sciences and humanities (SSH)? How do instructors adapt and/or modify activities to address the goals and objectives of their disciplines and courses? Drawing on activities developed by SSH instructors in the Dawson Active Learning Community (DALC), this interactive symposium will explore the benefits of active learning in SSH classrooms as well as what activities and strategies may be more effective in meeting the goals of SSH education.

## B.7 Expanding the Role of Students

KARIM JAFFER (Space Club, John Abbott College); ROYAL ASTRONOMICAL SOCIETY OF CANADA (Montreal Centre) *Astronomy Outreach - Student engagement through mentorship*

This talk will give an overview of Astronomy Outreach projects connecting students in multiple disciplines and across institutions and educational levels, employing the partnership between John Abbott College and the Royal Astronomical Society of Canada (RASC) - Montreal Centre. Several students will share their experiences being mentored by Astronomy enthusiasts and Space Industry Professionals in Montreal over the past few years, and at a high profile event at the Rio Tinto Alcan Planetarium on May 11, 2019.

ANNA WOODROW (John Abbott College/ McGill University - Macdonald Campus) *Sustainable Living: Practical skills for lifelong learning*

In Fall 2018 a new intensive CEGEP course was offered to incoming students which connected Humanities, Physical Education at John Abbott with McGill University's Faculty of Agricultural and Environmental Sciences, and Morgan Arboretum. The paper examines the benefits and challenges of this groundbreaking form of collaboration, and considers pedagogical practices, along with practical applications for future development of integrated courses.

SIMONE TISSENBAUM, KIRA SMITH (McGill University) *Reflections on students as partners in educational development initiatives*

This presentation will explore the value of students as partners from the perspective of two graduate students who worked as members of the planning committee for a symposium on assessment at a research intensive university. The presenters will use a narrative exploration of their own experiences, as well as a brief analysis of questionnaire data collected from symposium participants, to share best practices for meaningful student engagement, especially as it pertains to faculty development initiatives.

## B.8 Special Issues: Math Ed

YANHONG LI, XINLI WANG (University of Toronto); NAXIN ZHAO (Northwest Normal University); JINJUN DAI (Central China Normal University); JIM SLOTTA (University of Toronto, Ontario Institute for Studies in Education) *Active learning designs for calculus II: A learning community approach for seven interconnected smart classrooms*

We present a study of active learning in Calculus II, conducted across 7 interconnected smart classrooms, with a single professor, 8 Teaching Assistants, and 317 undergraduate students. Our study explored (1) how to leverage this unique structure so that all 7 cohorts of students were actively engaged as a learning community, and (2) how to enable a community knowledge base that serves as a resource for student learning. We present active learning patterns and outcomes.

ANDREEA PANAIT, MATHILDE HITIER (Dawson College); CHARLES FORTIN (Champlain College) *Promoting deep learning in Mathematics through active learning*

Using Active Learning in Mathematics: How to start and how does it improve deep learning? This presentation includes examples of active learning activities used in college mathematics courses in the desire of adapting our courses to a student-centered teaching environment. Using Active Learning in Mathematics, does it make a difference? We will try to answer by showing methods to measure the effectiveness of this new approach.

**LUNCH and POSTER SESSION**  
(12h45 – 14h00)

**AFTERNOON KEYNOTE (14h00 – 15h05)**

Location: Dawson College theatre

OLIVIER PALMIERI (Game Director & Director of XR Workshop, Ubisoft Montreal) *Extending Reality, Extending Learning*

Olivier is a Game Director at Ubisoft and the Director of XR Workshop, a partnership between Ubisoft and Concordia University. He will speak about the cutting edge and future of virtual and augmented reality – together referred to as Extended Reality, or XR -- in the gaming industry. He'll explore links among XR, gaming and experiential learning.

**AFTERNOON SESSIONS****SESSION C: 15h15 – 16h25****C.1 Connecting Research & Practice: New Models**

ARMIN YAZDANI, CHRIS BAILEY, DAN PETRESCU, FAYGIE COVENS, DAVID N HARPP (McGill University) *The evolution of creating a deep learning pedagogy workshop for instructors at McGill University*

The Tomlinson Project in University-Level Science Education (TPULSE) is developing a series of deep learning workshops. The Teaching Techniques for Instructors Workshop (TTIW) was originally developed for senior graduate students and postdocs to introduce the main principles of course design. A flipped classroom approach was used to reconceptualize this workshop and to further challenge the participants. We demonstrate that our overall workshop evaluations progressively improved over the evolution of integrating more deep learning modules in this workshop.

ARMIN YAZDANI, MARIA ORJUELA-LAVERDE, ALEX LIEPINS, NATHANIEL QUITORIANO (McGill University) *Introducing meta-cognitive skills for undergraduate students in engineering courses*

This project which received a SALTISE mini-grant aims to develop evidence-based metacognitive tools to empower students to be active agents of their own learning. This will be done using a model that considers both the teacher and the learner. Instructors will be introduced to a variety of metacognitive tools with detailed implementation plans for their courses. Students will benefit from receiving a metacognitive toolkit that could be used to enhance their learning in all engineering courses.

DAVID PRICE, SAUL CARLINER (Concordia University) *CEGEP and university teaching: What drives faculty, what holds them back, and how do they cope [a Grounded Theory]*

How can we explain college and university teaching in terms of what energizes faculty, what challenges they face, and where they turn to for help? This study conducted three focus groups and a survey of faculty from a CEGEP and university in Montreal. The result is a grounded theory that addresses incoming learners, institutional context, instructor strategies, and results. Supported by qualitative and quantitative data, the theory suggests priorities for administrators, faculty developers and researchers.

**C2. STEM: Special Issues (bilingual)**

OULIN YU, KEN RAGAN (McGill University) *myDALITE for freshman Mechanics at McGill*

myDALITE questions were assigned as optional and non-credit homework to McGill students attending Physics 101 and Physics 131. We found a positive correlation when comparing the participation rate in these assignments and the students' grade on the final exam. Furthermore, we show that simple exposure to a question through myDALITE improves their score on the same question on the final exam, even if the student scored 0 for this question in myDALITE.

ABDELJAIL MÉTIOUI (Université du Québec à Montréal); KEVIN LENTON (Collège Vanier); LOUIS TRUDEL (Université d'Ottawa) *Analyse conceptuelle d'un double questionnaire pour diagnostiquer les conceptions des étudiants du collégial sur les circuits électriques*

Nous allons présenter une analyse conceptuelle d'un double questionnaire développé pour diagnostiquer les conceptions des élèves du collégial sur les circuits électriques. Nous allons voir que les questions sont structurées sur le plan conceptuel autour des notions suivantes : circuits « ouvert » et « fermé », sources de courant et de tension, répartition du courant, de la tension ainsi que la puissance électrique dans différents circuits (parallèle, série et mixtes). Finalement, nous présenterons le point de vue d'élèves du collégial ayant rempli le questionnaire.

ANIS BOUBAKER (École de Technologie Supérieure) *Identification en amont des étudiants pouvant présenter des difficultés d'apprentissage en cours d'introduction à la programmation*

La littérature démontre que les taux d'échec et d'abandon dans les cours de programmation font partie des taux les plus élevés parmi les cours universitaires. Certains travaux se sont intéressés à la détection en amont des étudiant-e-s pouvant présenter des difficultés d'apprentissage dans de tels cours. Nous avons évalué quelques approches dans le contexte d'une école de génie au Québec. Dans cette présentation, nous ferons état de nos résultats et présenterons nos perspectives futures.

### C.3 Instructional Strategies: Interrupted Case Studies

HEATHER FICE, VERONIQUE BRULE, TAMARA WESTERN (McGill University) *Pause for Effect: Using an interrupted case study to promote deeper learning in a large, undergraduate Biology course*

Effectively implementing active learning pedagogies into large-enrolment lecture courses can be challenging because of class size. 'A Case for Cystic Fibrosis (CF): A Quebec Perspective' is an interrupted case study specifically developed for a large undergraduate genetics course at McGill University. Combining both in- and out-of-class components, the case study introduces students to various aspects of CF as they relate to course topics, and tasks students with applying their genetics knowledge to a real-world problem.

FRANCESCA THÉRIAULT (Dawson College) *Interrupted Case Study in Biology & Nursing*

The use of case studies as an instructional strategy in science allows students to explore and learn in a more profound way about complex processes. However, it can be difficult to manage, in terms of both time and learning progression. The use of interrupted case studies (ICS), specifically, is a way to mitigate some of these challenges. ICS involves three clear iterative phases: i) exploration ii) discourse and iii) synthesis. If thoughtfully designed and structured, ICS can prompt constructive peer interaction, enrich student learning and understanding, and multiple feedback opportunities, which move students and teacher forward in sync. Each step is used as a "building block", on which students and teacher can reflect before advancing to the next stage of the ICS, and ultimately achieving the learning objectives. In this presentation, we will reflect on the challenges and successes in using ICS in teaching biology. Specifically, we will describe the use of the Visual Classrooms™ active learning platform in the creation of ICS for Anatomy and Physiology Interconnections course in Nursing and in teaching the Scientific Method as part of an introductory general biology course for college level students.

MARTHA MULLALLY (Carleton University) *Teaching Biotechnology with Case Studies*

Biotechnology is a field of study that is inherently multi-disciplinary and complex. I use a case study approach to teach my biotechnology course. Students consider multiple data sources, multiple perspectives and work in cooperative groups to make decisions about complex problems. I will outline the use of a case study where students take multiple perspectives into consideration to decide about the ethics of patenting human genes.

### C.4 ☆ Special Focus: Learning Spaces

JIM SLOTTA, MICHELLE LUI, RENATO CARVALHO (University of Toronto) *Scripting and orchestration in future learning spaces*

This talk will present innovations from ENCORE lab, at the University of Toronto. We are a research group that explores active learning in formal and informal settings, for K-12, graduate and continuing education. Building on a "Knowledge Community and Inquiry" (KCI), our work investigates future learning spaces, immersive and virtual environments, and complex forms of scripting and orchestration to support students and instructors as they work collectively to build knowledge and advance inquiry.

YOTAM HOD (University of Haifa, Israel) *Responsibility Taking in Future Learning Spaces: A Humanistic Approach*

The digital age has fostered the rapid dissemination of Future Learning Spaces within the educational sector. Empirical studies examining learning processes relevant for the digital age within FLSs are needed, as scholarship has heretofore been overly reliant on anecdotal evidence or has struggled to keep up with innovative pedagogies. In an effort to advance this goal, in this talk I will report on research within the context of a knowledge building community that took place in a future learning space. Using responsibility-taking as an underlying concept, the findings from this research are two-fold. First, applying a grounded methodology, different ways that students take responsibility over their online space (The Knowledge Forum), a vital structure that supports collective knowledge building, are elucidated. Specifically, I will present a spatial responsibility-taking framework that includes 16 action-tool combinations. The second finding results from applying this framework alongside a knowledge building analysis of a group of students. Results from the micro-analysis shed light on different ways that spatial infrastructures and knowledge building can co-mediate one another.

## C.5 Active Learning: Collaborative Learning and Critical Thinking

REVATI MASILAMANI, BERRI JACQUE (Tufts University) *A collaborative digital approach to building primary literature literacy within a framework that fosters critical high-level skills in data analysis and interpretation*

Primary paper reading skills are critical to successful outcomes in graduate school. However there are few systematized courses offered at undergraduate or graduate level to promote mastery over paper reading. We used a collaborative digital annotation tool with graduate students in a microbiology program to model a 'flipped' journal club. Students' annotations and comments are visible to both their peers and the instructor, such that areas of low comprehension can be identified and addressed immediately and iteratively over the course of the semester.

VANESSA VANDERGRIFT (Vanier College) *Beyond homework: How to help students engage critically when they are not in class*

Ever wondered how to get your students organized, engaged and thinking critically about the material \*before\* they arrive to class? Using Google docs in a flipped classroom, I have created an environment where students can do everything from sign up for groups, ask questions on shared material, answer surveys, collaborate on text annotation and think critically about the themes we are studying-- all before they set foot in class. This presentation will describe and demonstrate how this approach allows for greater engagement and deeper learning -- for students as well as for teachers.

## C.6 Instructional Strategies: Engagement and Motivation

IVAN RUBY, ANN-LOUISE DAVIDSON (CONCORDIA UNIVERSITY); JORGE SANABRIA (Universidad de Guadalajara) *Addressing the educational frontline: Preparing teachers for a STEAM intervention through a Maker-led activity*

In this presentation, we will report on findings from a research project conducted in Guadalajara, Mexico, while preparing teachers from different disciplines who volunteered to guide K-12 students in a social innovation challenge. We employed a case-study design to gather data on the experiences and challenges teachers face in STEAM educational practices. Findings from this study highlight the deficiency in technical skills that teachers face and shed light on the design of activities that can address this gap.

ANILA ASGHAR (McGill University); CINDY HOVINGTON (Independent researcher); YING SYUAN HUANG, JOSEPHINE NALBANTOGLU (McGill University) *Fostering the development of graduate students through engagement in a learning community: The BrainReach Initiative*

This study focuses on the professional learning and growth of emerging scientists through their engagement in a science outreach initiative. Neuroscience graduate students worked collaboratively to promote elementary and high school students' scientific literacy and creative engagement with science in local public schools in Quebec. This presentation specifically elucidates the structures and activities of the learning community that facilitated graduate students' agency, professional learning, communication skills, and pedagogical content knowledge.

RHYS ADAMS (Vanier College); PHOEBE JACKSON (John Abbott College); KEVIN LENTON (Vanier College); MICHAEL DUGDALE (John Abbott College); CHRIS WHITTAKER (Dawson College); NATHANIEL LASRY (John Abbott College); ELIZABETH S. CHARLES (Dawson College) *Good job Pat! How a physics class benefitted by providing feedback to a fictional in-class peer*

We show how Error-Detection Tasks are an effective way for students to practice giving peer feedback. Using a web-based learning platform providing an asynchronous peer instruction experience (myDALITE.org), students are presented with physics problems solved by a fictional in-class peer, Pat. Pat's solutions contain one or more errors — algebraic to conceptual. Students must identify and explain to Pat how to correct the error(s).

## C.7 Special Focus Interactive Symposium: AI in the College

SAMEER BHATNAGAR, RAYMOND BOURGEOIS, JAYA NILAKANTAN, CARL SAUCIER-BOUFFARD, JONATHON SUMNER, JOEL TRUDEAU (Dawson College) *AI in College Education*

Recently Dawson College passed a three-year comprehensive plan in support of a strategy for the inclusion of AI in programs and certifications through curriculum, extra-curricular and cross-disciplinary activities, professional development, and research. This symposium surveys recommendations and actions to be taken from the plan and invites all stakeholders to a wide-ranging discussion on the integration of AI in college education. One desired outcome would be the initiation of new collaborations across the network.



## C.8 Special Issue: Reinventing Labs

DREW BUSH (McGill University); VICTORIA SLONOSKY (DRAW and ACRE Canada); GEOFF PEARCE (Dawson College); RENEE SIEBER (McGill University) *Investigating how students learn by rescuing historical weather data: SALTISE Mini-Grant report*

Launched publicly in April 2018, The Data Rescue: Archives and Weather (DRAW, <https://citsci.geog.mcgill.ca/>) project furthers scientific understandings of weather and climate and its impact on people. Funded by a Fall 2018 Mini Grant, this study examines how classroom-based curricula can integrate the DRAW website while involving students in learning about weather and climate, related human events and their own heritage.

FRANCO LA BRACA (Concordia University) *Labotorials — A Conceptually driven approach to introductory Physics labs*

There is overall student dissatisfaction with traditional physics labs, which, moreover, do not give students deep learning experiences. An alternative is provided by labotorials, which get students to develop their conceptual understanding of fundamental physics concepts through group-based problem solving and self-driven experimentation. Labotorials have already shown promise in high school and university applications.

MACLEAN ROUBLE, MATT DOBBS (McGill University) *Taking the electronics lab outside the classroom*

We look to examine the effectiveness of traditional teaching methods in the undergraduate physics instrumentation laboratory by designing an alternate, active-learning-oriented curriculum accompanied by a portable electronics learning platform, and performing a comparison of the two teaching methods.

**AWARDS CEREMONY  
and WINE and CHEESE RECEPTION**  
(16h45 – 18h45)

## DAY 2

### MORNING KEYNOTE (8h50 – 9h55)

Location: Cinéma Cineplex Forum

DAVID USHER (Reimagine AI, founder) *Re-imagining AI: A talk with David Usher*

Come and participate in this Q & A with David Usher founder of Reimagine AI, an artificial intelligence creative studio working with companies like Google Brain and focused on building intelligent beings using interactive artificial intelligence technology.

### MORNING SESSIONS

#### SESSION D: (10h15 – 11h25)

#### D.1 Connecting Research and Practice (bilingual)

ARMIN YAZDANI, CYNTHIA FENG, CHRISTINA POPESCU, TORSTEN BERNHARDT, ANITA PARMAR, TAMARA WESTERN, MARCY SLAPCOFF (McGill University) *Integration of Students and Staff as Partners (SaSaP) Framework in the Office of Science Education at McGill University*

The Students as Partners (SaP) framework empowers students, academic and administrative staff to be full partners in the teaching and learning process. The new Office of Science Education (OSE) within the Faculty of Science at McGill University initiated a number of projects that use the Students and Staff as Partners (SaSaP) framework. Projects include SaSaP integration in the structure of OSE, STEM course design and development, and educational assessment initiatives. OSE will play a central role in empowering other units to develop SaP initiatives.

ABDELJALIL MÉTIOUI (Université du Québec à Montréal); LOUIS TRUDEL (Université d'Ottawa) *Diagnostic des conceptions des étudiants : Force et mouvement*

La présente communication a pour objet de présenter un état de la question sur le phénomène de la persistance des conceptions préscientifiques sur les notions de mouvement et de force. Ensuite, la conception d'un double questionnaire à choix multiples pour diagnostiquer les conceptions des étudiants avant l'enseignement sera présentée. Ce questionnaire permettra aux enseignants d'identifier rapidement les conceptions erronées de leurs étudiants pour en rendre compte dans leur enseignement.



SÉVERINE PARENT, VÉRONIQUE LAFLAMME (Université du Québec à Rimouski, UQAR - Campus de Lévis) *Regard systématique sur l'engagement : résultats préliminaires d'une recension des écrits*

Dans les articles sur l'engagement des étudiants, le concept est souvent abordé, mais moins souvent défini. Le regard structuré d'une recension systématique de la littérature s'impose pour préciser le concept. Nous présenterons les résultats préliminaires de notre recension systématique des écrits. La méthodologie pour constituer le corpus des articles et en faire l'analyse sera présentée. Les résultats présentant les outils pour mesurer l'engagement seront présentés. Les possibilités de transfert des résultats et limites seront abordées.

## D.2 Special Topic: Controversies (bilingual)

DOMINIQUE PIOTTE (École de technologie supérieure) *La prépa aux examens, pour ou contre?*

Avec la multiplication des services de préparation aux examens, en particulier offerts par des entreprises, on court le risque de voir des étudiants réussir en appliquant des recettes plutôt qu'en ayant réalisé les apprentissages requis. En réponse à ce problème, j'ai conçu et animé des ateliers de préparation aux examens qui s'inscrivent dans une démarche d'apprentissage. J'en présenterai les buts, la conception, le déroulement et leur effet sur les résultats aux examens.

MARY JORGENSEN, ALICE HAVEL, CATHERINE FICHTEN (Dawson College); LAURA KING (Cégep André-Laurendeau) *The Smartphone in the classroom: Teacher's friend or foe?*

The Adaptech Research Network examined students' use of smartphones in the classroom. Teachers, professionals and students all mentioned that smartphone use can be distracting for students and those around them. Conversely, many participants had great ideas about how smartphones could be integrated as an effective teaching tool. Classroom management strategies regarding smartphones were also discussed. Our intention is to share our findings, as well as to hear about your positive experiences with smartphone usage in class.

LISSA ALBERT, SAUL CARLINER (Concordia University); MONICA LOPEZ (Marianopolis College) *Plagiarism and Other Code Violations: Drawing Back the Curtain*

In the context of the Concordia-Marianopolis Faculty Development Collaboration (found at <https://www.saltise.ca/learning-community/concordia-marianopolis-fdc/>), faculty were asked to identify the main challenges they currently face in their teaching. One of these challenges is how to prevent student plagiarism. Drawing on interviews with two experts at Concordia University, we will present articles written to help educators in higher education cope with this issue.

## D.3 Symposium: Learning Communities

CHRIS WHITTAKER, IAN MACKENZIE, CHANTALE GIGUERE, CATHERINE SOLEIL, JOEL TRUDEAU, HÉLÈNE NADEAU (Dawson College) *The Dawson Ecosystem of Learning Communities – A Symposium on the common ground and lessons learned across multiple initiatives for creating and sustaining innovative opportunities for learning at Dawson College*

This symposium represents an opportunity to explore common ground within a number of successful initiatives to support innovative learning opportunities at Dawson College and to build on their successes through an extended conversation. Join us for an overview of each initiative, followed by a panel discussion on issues of importance when it comes to sustaining and scaling such initiatives. It is hoped that through such a discussion the academic community will be better able to support such initiatives by leveraging and valuing community.

## D.4 Symposium: Students as Citizens

ANNA-LIISA AUNIO, DIANA RICE, GEOFFREY PEARCE, MARK BEAUCHAMP (Dawson College) *Engaging the student as citizen: Thinking about community and environment to support active learning*

Does engaging the whole student — as a citizen, a community member, and in their environment — translate into meaningful learning outcomes for students? This symposium will explore ideas and models for active learning that bring the learner from the classroom into the community. Drawing on the experience of three examples at Dawson college, presenters will address doing so within one course, across paired courses in a learning community, and across several courses and programs as part of a certificate program.

## D.5 Symposium: Expanding the Role of Students

LÉA BLONDEL, SARAH SANDERSON, IVAN GONZALEZ, KARLIE POTTS, OULIN YU, MARIA ORJUELA-LAVERDE, ANITA PARMAR, TAMARA WESTERN - AAU STEM WORKING GROUP (McGill University) *Summation of integrating students into freshman STEM course redesign at McGill (2017-2019)*

This presentation explores the outcomes and impact of a 2-year iterative program, ongoing at McGill University, that pairs Graduate STEM students with course professors to conceive of and implement changes in large (600-1000 students) freshman STEM courses.

## D.6 Instructional Strategies Interactive Symposium: Flipped Pedagogies

REBECCA BROSEAU, NIKOLAS PROVATAS (McGill University) *An adapted flipped class model – Introductory Physics: Electromagnetism*

This presentation will explore the implications of flipping an Introductory Physics: Electromagnetism class for 650+ Life Sciences students. This revamped class structure emphasizes active problem-solving to allow students to engage with core physics concepts in a way that encourages deep learning and promotes long-term retention. We will discuss the logistics of flipping a large-scale class, the iterations made based on student feedback, and the assessment framework designed to evaluate the impact of this model.

## D.7 STEM Interactive Session: Physics

PATRICK ROGERS (Marianopolis College) *Card-Sorting reviews for electricity*

In Electricity and Magnetism, we ask students to grasp a number of ideas (charge, field, potential, energy, motion), some rather abstract. In addition, we want the students to be able to make connections between these different ideas. I will present two end-of-semester review activities that I've used to help students with these challenging tasks and improve their conceptual understanding. In each activity, students are asked to sort different representations (diagrams, graphs, words, equations) according to the appropriate physical situation.

KEVIN LENTON (Vanier College) *Geogebra in the Physics classroom*

GeoGebra is an online platform, intended for learning and teaching mathematics. This platform can be repurposed for the physics classroom to quickly create purposed simulations for teacher demos. In addition, it can be used to scaffold short activities for student use e.g. to create free body diagrams. The development and use of Geogebra activities to give immediate feedback, is described.

## D.8 Interactive Session: Instructional Design

LORRAINE CHIARELLI (Champlain Regional College) *Redesigning online tools to support teaching and learning in the classroom*

There is a wealth of online tools designed to support blended learning. However, for any tool, practical application and ease of use are essential for buy-in from all users. At Champlain College instructors in the Native Childcare program needed online support for their classroom teaching. This led to the development of two tools: dynamic course webpages and curated library subject guides. This presentation will demonstrate these tools, and their application beyond the childcare program.

CHRYSTIA CHUDCZAK (University of Ottawa) *Chasing the Puck - Helping you score with design thinking*

Interested in exploring how a design thinking mindset combined with digital and analogue tools can shape and change your world? Want to experience a highly interactive session with LEGO Serious Play and Nureva? Check out "Chasing The Puck - Helping You Score with Design Thinking."

## D.9 Interactive Session: Active Learning

LILIYA NIKOLOVA (John Abbott College) *Discussion panels / Role play games in applied natural sciences and engineering*

Discussion panels, debates and role play games are widely used in social sciences classes to engage the students and promote deeper learning. Yet, such activities are rarely used in applied natural sciences or engineering. In this talk I will present two different approaches for organisation and orchestration of discussion panels which I am using in a variety of Engineering Technologies Program classes.

SHANMUGAVALLI NARAYANAN (McGill University) *A qualitative analysis of inquiry based learning and teaching (IBTP) in environmental science classrooms*

My dissertation research focuses on developing a collaborative professional learning forum (CPL) of secondary pre-service science teachers in Quebec. This CPL will serve as a supportive professional platform for pre-service teachers where they collaboratively explore inquiry-based teaching practices (IBTP) and develop pedagogical tools for these practices in their environmental science classrooms. Using an ethnographic approach, this study will examine the process of teachers' participation, collaboration, and learning in a CPL as they implement IBTP in their environmental science classrooms.

GABRIEL FLACKS (Champlain College) *linkr: a Global Educational Network, Workspace for Active Learning, and home for the Saltise community*

This interactive workshop allows attendees to experience linkr. This free online community and platform is being offered as a space for the Saltise community to collaborate and communicate. Further, linkr enables easy access to international collaborations, online publishing, student and teacher portfolios, and supplements an LMS with ease.

## D.10 Interactive Session: Critical Issues

PAT ROMANO, KIM SIMARD (Dawson College) *The Resist Violence Pedagogy: Bringing artistic activism into the classroom*

College students are at a critical juncture in their lives as they solidify their own values and ideas about the world. While student success improves when students deal with serious issues that are affecting them, many educators are reluctant to address the problem of violence, including rape culture and "othering," for fear of leaving students overwhelmed and the classroom divided. The resist violence pedagogy responds to these concerns by bringing nonviolent resistance and artistic activism directly into the classroom to engage students intellectually, emotionally and creatively.

HANNAH CHESTNUTT, ALLISON GONSALVES (McGill University) *Reaching new depths: Supporting under-represented students to be positioned deeper within their STEM discipline*

The learning experiences of under-represented minorities in STEM post-secondary education is known to be influenced by the development of a STEM identity. Existing research suggests the persistence of under-represented students through degree programs in these subject areas improves with participation in STEM clubs/organizations/initiatives. To capture the social interactions that facilitate the flow of resources through these initiatives, thereby allowing students to position themselves as 'insiders' deeper within their disciplines, an ego-network approach is used.

## Health Refreshment Break (11h25 – 11h45)

## AFTERNOON PANEL DISCUSSION

(11h45 – 13h30)

### Augmentation in the Age of AI

Introduction: Richard Fillion,  
Director General, Dawson College

Location: Dawson College Theatre

Emerging technologies in this new era of artificial intelligence (AI) forecast untold capacities for human endeavour and the transformation of our world. The augmentation of learning, research, work and virtually all domains of human activity present challenges and opportunities, yet to be discovered. The multidisciplinary expert panel assembled for the SALTISE conference will highlight and discuss some of these activities and implications: from impacts of AI on knowledge creation and policy to prospects for deeper learning and the design of new environments that better support formal and informal instruction.

### Panel includes:

DOINA PRECUP, Director of Google's *DeepMind Montreal*

ABHISHEK GUPTA, Founder of *Montreal AI Ethics Institute*

OLIVIER PALMIERI, Game Director at *Ubisoft*

DAVID USHER, Founder of *Reimagine AI*

*Panel Discussant:* JIM SLOTTA, *University of Toronto, OISE*

*Panel Chair:* JOEL TRUDEAU, *Dawson College*

### PANEL MEMBER BIOS

DOINA PRECUP, Research Team Lead of Google's DeepMind Montreal

Doina Precup splits her time between McGill University, where she co-directs the Reasoning and Learning Lab in the School of Computer Science, and DeepMind Montreal, where she has led the research team since its formation in October 2017. Her research interests are in the areas of reinforcement learning, deep learning, time series analysis, and diverse applications of machine learning in health care, automated control, and other fields. She became a senior member of the Association for the Advancement of Artificial Intelligence in 2015, Canada Research Chair in Machine Learning in 2016, Senior Fellow of the Canadian Institute for Advanced Research in 2017, and received a Canada CIFAR AI (CCAI) Chair in 2018. Dr. Precup is also involved in activities supporting the organization of Mila and the wider Montreal and Quebec AI ecosystem.

ABHISHEK GUPTA, Founder of Montreal AI Ethics Institute

Abhishek Gupta is the founder of the Montreal AI Ethics Institute and an AI Ethics community with more than 1350 members from diverse backgrounds who do deep dive explorations of AI ethics and offer public consultations to initiatives like the Montreal Declaration for Responsible AI. His work has been featured by the United Nations, Oxford, Stanford Social Innovation Review, World Economic Forum and he travels frequently across North America and Europe to help governments, industry, and academia understand AI and how they can incorporate ethical, safe and inclusive development processes within their work. Mr. Gupta also comes from a strong technical background, working as a Software Engineer, Machine Learning at Microsoft in Montreal.

### Special Poster Session (13h00 – 14h00)

Location: Atrium

TIM MILLER AND STUDENTS (Dawson College) *Design Thinking and Active Learning*

Design Thinking is a human centred problem solving methodology. Originally used in the world of design, this 5 step process is now widely used across a variety of disciplines. It guides organizations and groups to create and innovate feasible, sustainable, and viable solutions. Students from Dawson College were challenged to create a social enterprise in 5 days by using Design Thinking. Their social enterprise and the ideated solutions will be presented for feedback.

### Campus Walking Tour: Service Learning Projects

(Location and time to be announced  
at the conference)

DIANA RICE, CHRIS ADAM (Dawson College) *Peace, sustainability and service learning projects*

How do you create pedagogy that focuses on community engagement irrespective of discipline while providing students with the capacity to build real-world skills and apply academic knowledge? Come for a Living Campus walking tour around Dawson of service learning projects that have been designed and/or organized and/or maintained by students as a part of a class.

### Post-Conference

**3hr Workshops (14h00–17h00)**  
**Deeper explorations into specific topics**

Consult the SALTISE website for more information

## Posters

FRANCO LA BRACA (Concordia University) *Improving high school students' understanding of the concept of force and Newton's laws through the combination of Laboratories and Reflective Writing*

STEVEN EHRLICK, NOAH SCHWARTZ (Ryerson University); JIM SLOTTA (University of Toronto) *Backstage pass: How active learning and user-generated content immerse university students in the music business*

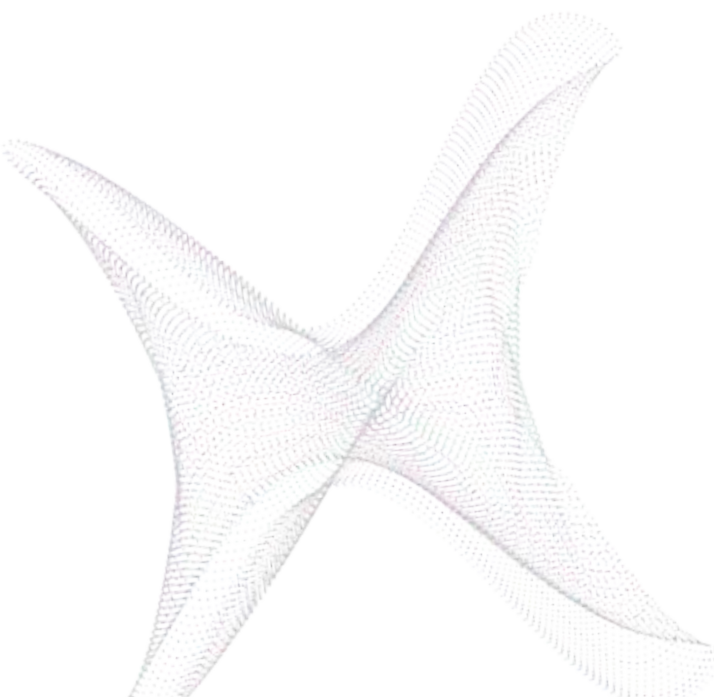
NEERUSHA GOKOOL-BAURHOO, ANILA ASGHAR (McGill University) *Exploring strategies developed and implemented by CEGEP science instructors to support students with learning disabilities*

DANIEL GOLDSMITH (Dawson College); MARK MCGUIRE (John Abbott College) *Using visual storytelling to talk about trauma*

ISABELLE LEPAGE, DR. ALEXANDRE BÉDARD, EDITH POTVIN-ROSSELET, MARIE-CLAUDE PLOURDE, DR. DIANE LEDUC (Université du Québec à Montréal) *Pour que les enseignants ne perdent pas le nord, des boussoles pour innover en évaluation des apprentissages*

SARAH SHAPIRO (University of Massachusetts, Boston) *Cracking the Classroom: Place-based Learning*

VALÉRIE TREMBLAY (Collège LaSalle) *Connexions et déconnexions: pistes de réflexion pour retrouver l'équilibre et aider les élèves à en faire de même*





# NOTES

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linkr is a **global educational network**  
that connects students, teachers and institutions.

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Easily  
internationalize  
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Register for free and join the Saltise community on linkr:

<https://app.linkrededucation.com/saltise>

Or, send any questions to [gabriel.flacks@linkrededucation.com](mailto:gabriel.flacks@linkrededucation.com)

# Words of Appreciation / Mots d'appréciation



SALTISE'S 8<sup>th</sup> ANNUAL CONFERENCE COMMITTEE wishes to thank the **Entente Canada-Québec relative à l'enseignement dans la langue de la minorité et à l'enseignement des langues secondes (ECQ)**, managed by **Ministère de l'Éducation et de l'Enseignement supérieur**, for their contribution towards the funding of this year's conference and the SALTISE/S4 project that has allowed this Community to grow. We greatly appreciate the generosity and confidence they have shown in supporting the vision of our many inter-institutional and inter-order collaborations and partnerships. Thank you!

Le comité d'organisation du SALTISE tient à remercier **Entente Canada-Québec relative à l'enseignement dans la langue de la minorité et à l'enseignement des langues secondes (ECQ)**, gérée par le **Ministère de l'Éducation et de l'Enseignement supérieur**, dont le soutien a permis de financer la conférence 2019. Nous remercions également le projet SALTISE/S4 grâce auquel notre communauté ne cesse de croître. Nous apprécions grandement leur générosité ainsi que la confiance qu'ils manifestent envers nous en soutenant nos collaborations inter-institutionnelles, nos partenariats et notre vision.

We thank our host, Dawson College, for their warm welcome and commitment to ensuring the success of the SALTISE conference. We express our deep appreciation to the senior Administration of the College, the Dean of the Office of Academic Development (OAD) and the many Departments and Services that have played a role in making this event a success.

Nous remercions notre hôte, le Collège Dawson, pour son accueil chaleureux et son engagement envers la réussite de la conférence SALTISE. Nous étendons ces remerciements à l'Administration du collège, aux directeurs et à l'OAD (*Office of Academic Development*), ainsi qu'à tous les départements et services ayant contribué à la réussite de l'événement.



**SALTISE**  
Supporting Active Learning & Technological Innovation  
in Studies of Education

8<sup>E</sup> COLLOQUE ANNUEL DE  
**SALTISE**  
8<sup>TH</sup> ANNUAL CONFERENCE

THÈME | PROMOUVOIR UN APPRENTISSAGE PLUS APPROFONDI:  
DE L'ANALYSE AUX NOUVELLES STRATÉGIES<sup>1</sup>

THEME | PROMOTING DEEPER LEARNING:  
FROM ANALYTICS TO NEW STRATEGIES<sup>1</sup>

3 & 4 JUIN 2019

**DAWSON COLLEGE**  
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# SALTISE 2019 8<sup>th</sup> Annual Conference / SALTISE 2019 8<sup>e</sup> Conférence Annuelle

Wishes to thank its partner organizations for their support



Concordia Centre for Teaching and Learning - Our goal is to start conversations with faculty and graduate students about what makes great teaching & learning. We aim to build on and share these ideas through workshops, online resources and university-wide networks.  
<http://www.concordia.ca/offices/ctl.html>



UQAM Faculté d'éducation, Département de didactique - Le Département de didactique s'intéresse aux situations d'apprentissage-enseignement ainsi qu'à la didactique générale. Faisant partie de la Faculté des sciences de l'éducation de l'UQAM, il contribue au développement et à la diffusion des connaissances nécessaires à la formation initiale et continue du personnel enseignant et d'autres professionnels de l'éducation, aux trois cycles d'études.  
<https://didactique.uqam.ca/>



Le réseau PÉRISCOPE vise le croisement des perspectives de recherche et d'intervention en matière de scolarité, persévérance et réussite scolaires (PRS) et veut encourager davantage de synergie entre les acteurs.  
<http://periscope-r.quebec/en>



The Centre de documentation collégiale (CDC) was created in 1990 when the Ministère de l'Enseignement supérieur et de la Science took over the extensive collection of documents developed since 1970 by the Centre d'animation, de développement et de recherche en enseignement (CADRE).  
<https://cdc.qc.ca>



CCDMD (Centre collégial de développement de matériel didactique) provides digital and online materials for a number of college disciplines and programs.  
<http://www.ccdmd.qc.ca>



The mission of the AQPC is to promote, stimulate, and support the development and evolution of college pedagogy. The AQPC strives to be a reflection and a beacon for all who work in education at the college level so as to ensure the quality of learning for all students whether enrolled in regular courses or in continuing education. The AQPC contributes to the development and evolution of pedagogy in conjunction with diverse partners in the field of higher education.  
<http://aqpc.qc.ca/>



Teaching and Learning Services (TLS) promotes and supports the ongoing development and enhancement of teaching and learning at McGill University.  
<http://www.mcgill.ca/tls/>



L'ARC est un lieu de rencontres et d'échanges sur la recherche collégiale. Comme association, elle travaille au développement de la recherche dans les établissements d'enseignement collégial.  
<http://vega.cvm.qc.ca/arc/>



<http://www.education.gouv.qc.ca/ministere-de-leducation-et-de-lenseignement-superieur/>



Vitrine technologie-éducation (VTÉ) is a nonprofit organization with the mission to guide Quebec post-secondary education institutions in their educational technology choices. VTÉ provides free online laboratories on emerging technologies and new ways to teach, a catalog of teaching and learning resources as well as software group purchases for cégeps and universities.  
<http://vteducation.org/en>



Cégep à distance develops distance education materials for college-level courses and provides on-line courses in many disciplines.  
<http://cegepadistance.ca/en>



Profweb supports IT integration in teaching and learning. Profweb - the Quebec College Crossroad for IT integration:  
<http://www.profweb.ca/en>

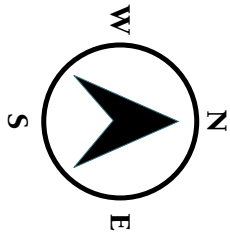


eLATE (enhancing Learning and Teaching in Engineering) is a community within the Faculty of Engineering that is committed to promoting excellence in the teaching and learning of technical and professional 21st-century skills.  
<https://www.mcgill.ca/engineering/initiatives/elate>



The Association for the Educational Application of Computer Technology at the Post-Secondary Level (APOP) is a nonprofit professional association, established in 1982, working to promote the pedagogical integration of IT (Information Technology) into teaching and learning.  
<https://apop.qc.ca/en/>

SALTISE Conference Venue



THIRD FLOOR DETAIL

