



Innovate every day and go beyond COVID-19/  
Innovating Every Day: Moving Beyond COVID-19

Conférence virtuelle RCIÉ 2022/ 2022 CNIE Virtual Conference

Organisée par / Hosted by  
Université Concordia / Concordia University  
Program de technologie éducative / Educational Technology Program

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## Programme Préliminaire / Preliminary Program

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## **Reconnaissance territorial / Territorial acknowledgement**

### **Reconnaissance virtuelle**

Nous aimerons à reconnaître les Autochtones de tous les territoires dans lesquels nous nous trouvons aujourd'hui. Même si nous nous rencontrons sur une plateforme virtuelle, nous devrions prendre un moment pour reconnaître l'importance du territoire dans lequel chacun d'entre nous se trouve. Nous reconnaissons le territoire pour réaffirmer notre engagement et notre responsabilité quant à l'établissement de relations positives entre les nations et à l'approfondissement de notre compréhension des peuples autochtones et de leurs cultures. D'un océan à l'autre, nous reconnaissons le territoire ancestral et non cédé de tous les Inuits, de toutes les Premières Nations et de tous les Métis.

### **Reconnaissance pour l'hôte de la conférence**

Nous tenons d'abord à souligner que les terres d'où cette conférence est organisée font partie du territoire traditionnel non cédé des Kanien'keha:ka (Mohawk), qui a longtemps servi de lieu de rassemblement et d'échange entre les nations.

### **Acknowledgement of the Virtual Space**

We would like to acknowledge the Indigenous Peoples of all the lands that we are on today. While we meet here on a virtual platform, we should take a moment to recognize the importance of the land on which we are each located. We acknowledge the territory to reaffirm our commitment and responsibility in building positive relationships between nations and in developing a deep understanding of Indigenous peoples and their cultures. From coast to coast to coast, we acknowledge the ancestral and unceded territory of all Inuit, First Nations, and Métis peoples.

### **Acknowledgement for the Conference Host**

We acknowledge that the land from which this conference is hosted is the traditional and unceded territory of the Kanien'heha:ka (Mohawk), a place that has long served as a site of meeting and exchange amongst nations.

## À propos du Réseau / About the Network

Le réseau canadien pour l'innovation en éducation (RCIÉ): Organisme de professionnels voués à l'excellence dans l'innovation en éducation au Canada. Notre culture d'inclusion accueille toutes les personnes intéressées par l'innovation dans l'éducation de nos systèmes: de la maternelle à la 12e année, les établissements postsecondaires, la formation privée et le développement professionnel, ainsi que les acteurs du secteur. Notre objectif est de créer un espace de dialogue, de collaboration et d'innovation! Pour plus d'informations sur le RCIÉ, consultez le site <http://cnieRCIÉ.ca/>.

La RCIÉ parraine:

- Les publications
  - Revue canadienne de l'apprentissage et de la technologie
  - La revue internationale de l'apprentissage en ligne et de l'enseignement à distance
  - Actualités mensuelles
- Récompenses
  - Fonds de fiducie de l'AMTEC (pour soutenir la recherche, l'apprentissage et le développement professionnel des étudiants, des professionnels et des professeurs)
  - Prix CNIE: Excellence dans l'intégration de la technologie, dans la conception pédagogique et dans l'intégration de la technologie dans un partenariat ou une collaboration Prix de la rédaction pour des articles dans nos revues
  - Prix du leadership
- Et cette conférence annuelle

The Canadian Network for Innovation in Education (CNIE) is an organization of professionals committed to excellence in the provision of innovation in education in Canada. Our inclusive culture welcomes all those interested in examining innovation in education from our K-12 systems, post-secondary organizations, private training and professional development and those involved in industry – our goal is to provide a space for dialogue, collaboration and innovation! Find more information about the CNIE at <http://e.cnie-RCIÉ.ca/>.

The CNIE sponsors the following:

- Publications
  - Canadian Journal of Learning and Technology
  - International Journal of e-Learning and Distance Education
  - Monthly newsletter
- Awards
  - AMTEC Trust Awards (to support research, learning, and professional development by students, professionals, and faculty)
  - CNIE Awards: Excellence in the Integration of Technology, in Instructional Design, and in the Integration of Technology in a Partnership or Collaboration
  - Editor's Awards for articles in our journals
  - Leadership Award
- And this annual conference

## À propos de cette conférence / About this Conference

Éducateurs, chercheurs et intervenants d'organisations ont activement collaboré pour rapidement s'adapter à la transformation numérique de l'éducation causée par la pandémie de COVID-19.

Tandis que nous entamons une troisième année de pandémie, il est crucial de mettre en lumière la transformation qui s'est opérée dans l'exercice de l'enseignement afin de souligner les innovations qui ont mené à des solutions et à des changements. Nous nous devons également d'examiner les innovations axées sur des problèmes actuels et émergents, comme les inégalités dans l'éducation, les leçons à tirer de la pandémie, et les progrès dans la transformation numérique et les systèmes éducatifs.

À l'occasion du congrès virtuel 2022 du Réseau canadien pour l'innovation en éducation, nous continuerons d'explorer deux types d'innovations : l'innovation immédiatement nécessaire en raison de la phase actuelle de la pandémie de COVID-19, et les changements systémiques plus vastes découlant de la transformation numérique.

Nous invitons les professionnelles et professionnels appuyant la mission pédagogique des établissements postsecondaires, du système éducatif américain, de l'éducation permanente, du perfectionnement professionnel et de la formation en milieu de travail à partager leurs rapports sur ces deux types d'innovations : celles qui s'opèrent en ce moment même, et celles qui se font sur le long terme – car les deux représentent l'essence de l'innovation au jour le jour.

Educators, researchers, and organizational stakeholders have actively collaborated to rapidly embrace the digital transformation of education due to the unexpected outbreak of the COVID-19.

As we enter a third year living with COVID-19, it is crucial to reflect the past transformation in delivering schooling to recognize the successful innovations driving solutions and change. We should also explore innovations that address ongoing and new challenges such as inequities in education, learning losses during the pandemic, and advances in the digital transformation and education systems.

At the 2022 Virtual Canadian Network for Innovation in Education Conference, we continue to explore both types of innovation: The innovation demanded immediately by the current phase of COVID-19 pandemic and the broader systemic changes arising from digital transformation.

We invite professionals supporting the educational missions of post-secondary organizations, K-12 systems, continuing education, professional development, and workplace training to share reports about both types of innovation: in the here-and-now and for the long-run, both of which are the essence of innovating every day.

## Les Volets de Cette Conference / Conference Streams

- **L'architecture de l'apprentissage:** Fait référence à la conception de programmes d'études et à des efforts intégrés d'apprentissage et de communication pour aider les apprenants à atteindre des objectifs importants.
- **Conception des expériences d'apprentissage:** représente la dernière approche des professionnels actifs en matière de conception d'expériences pédagogiques. Parfois appelée conception détaillée, la conception d'expériences d'apprentissage intègre le meilleur des éléments suivants:
  - La conception pédagogique (l'ingénierie des expériences pédagogiques pour faciliter l'apprentissage)
  - La conception de l'expérience utilisateur (en prenant soin lors de ces séquences de s'assurer de la compréhension et du confort des apprenants)
  - Bien que le concept ait gagné en popularité parmi ceux qui conçoivent du matériel didactique à utiliser dans l'apprentissage en ligne asynchrone, les concepts s'appliquent plus largement.
  - Parmi les pratiques qui rendent les expériences d'apprentissage accessibles figurent celles qui utilisent des ressources éducatives libres
- **Pratiques de l'enseignement fondées sur des preuves:** Repose sur le haut savoir en matière d'enseignement et d'apprentissage, qui étudie de manière empirique les approches disciplinaires et généralisées d'enseigner des sujets particuliers en classe, et en partage les conclusions afin de renforcer l'enseignement.
- **Learning architecture** Learning architecture refers to the design of curricula and integrated learning and communication efforts to support learners in achieving important goals.
- **Learning experience design** represents the latest approaches among practicing professionals to the design of instructional experiences. Sometimes called detailed design, learning experience design incorporates the best of:
  - Instructional design (the engineering of instructional experiences to facilitate learning)
  - User experience design (taking care during these sequences to ensure the comprehension and comfort of learners)
- **Institutional technology** refers to the many classes of technology used to design, develop, deliver, and evaluate instruction, as well as manage educational operations. These technologies include:
  - Software for designing and developing instructional materials
  - Software for broadcasting over the web and producing complex online learning sequences
  - Classroom-related hardware and software, such as lecture-capture software, classroom response systems, and other technologies intended to strengthen the face-to-face class experience
  - Software for managing broader educational activities, from tracking individual students through a program and enrollments in

- La technologie La technologie institutionnelle fait référence aux 3 institutionnelles nombreuses classes de technologie utilisées pour concevoir, développer, diffuser et évaluer une unité d'instruction, ainsi que pour gérer des opérations pédagogiques. Ces technologies comprennent:
  - Logiciel(s) de conception et de développement de matériel didactique
  - Logiciel(s) de diffusion sur le Web et de production de séquences d'apprentissage en ligne complexes
  - Matériels de travail en classe et logiciels liés à la salle de classe, tels que logiciels de capture de conférences, systèmes de réponse en classe et autres technologies destinées à renforcer l'expérience de classe en face à face
  - Logiciel(s) de gestion d'activités éducatives plus vastes, allant du suivi individuel des étudiants via un programme aux inscriptions à des cours individuels, en passant par l'intelligence artificielle signalant les étudiants à risque
  - Technologie à l'échelle de l'organisation, qui gère des opérations autres que l'enseignement et l'apprentissage
- **Partenariat avec le corps professoral et l'administration:** Sont au cœur du succès des professionnels de l'éducation qui soutiennent les missions de leurs établissements. Ces partenaires sont souvent responsables de la mise en œuvre des innovations proposées et conçues par les professionnels de l'éducation. Mais en raison des différences de rôles et de priorités, ces partenariats posent des problèmes pratiques pour la promotion de l'innovation dans l'éducation
  - individual courses, to artificial intelligence that flags students at risk
  - Organization-wide technology, which manages operations other than teaching and learning
- **Partnering with Faculty and Administration:** Central to the success of educational professionals who faculty and administration support the missions of their institutions are their partnerships with faculty and administration. These partners are often responsible for implementing the innovations that educational professionals propose and design. But because of differences in roles and priorities, these partnerships pose practical challenges in promoting innovation in education.



## Jour un / Day One

### Lundi 2 mai / Monday, May 2

**Remarque:** toutes les heures de l'Est. Lorsque vous ajoutez ces sessions à votre calendrier, veuillez prendre en compte le fuseau horaire.

**Note:** All times Eastern. When adding these sessions to your calendar, please take the time zone into consideration.

#### Day at a Glance

9:30 – 10:00	<b>Orientation de la conférence en ligne / Online conference orientation</b>		
10:00 – 11:15	<b>Keynote: Building a Learning Community Using Research-Practice Partnerships: What can this tell us about equity in educational reform</b> Dr. Elizabeth Charles, the Co-Director of SALTISE and Professor in Dawson College		
11:30 – 12:30	<b>Topic: Open Pedagogy and OER</b>  <b>Volet: Pratiques de l'enseignement fondées sur des preuves / Track: Evidence-based practices in teaching</b>  Research presentation: <i>Enacting Open Pedagogy and Co-mentorship Practices with Graduate Students: A Collaborative Autoethnographic Study</i> Pamela Walsh, Cindy Ives, and Beth Perry, Athabasca University  <b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Innovative teaching, technology or design technique: <i>Open educational practice and a website created by students, for students</i> Marie Bartlett, Thompson Rivers University  <b>Volet: Partenariat avec le corps professoral et l'administration / Track: Partnering with Faculty and administration</b>  Innovative teaching, technology or design technique: <i>Repurposing Open Education Resources (OER) Courses in Sustainable Forest Management amid Global Pandemic: Lessons Learned and Future Implementation</i> Anil Shrestha, Hailan Chen, Na Zhong, The University of British Columbia; Shiyi Zhang, Cao Long, Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet); and Guangyu Wang, The University of British Columbia	<b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Hands-on workshop: <b>Instructional Flow Matrix: A Conceptual Tool for Hybrid Learning Design (Workshop)</b> Neus Lorenzo, Universitat d'Andorra; and Ray Gallon, Université de Strasbourg	<b>Volet: Pratiques de l'enseignement fondées sur des preuves / Track: Evidence-based practices in teaching</b>  Innovative topic: <b>Pandemic Pedagogy in Canada — Models and Successes</b> Randy LaBonte, Canadian eLearning Network
12:30 – 1:00	Break		
1:00 – 2:00	<b>Topic: Digital Citizenship and Media Literacy</b>  <b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Case study in innovation: <i>A Digital Citizenship Collaboration - Inclusion in Action</i>	<b>Volet: La technologie institutionnelle / Track: Institutional technology</b>  Innovative topic: <b>Exploring the Use of NFTs in Open Education for Sustainable Development, Creativity and Innovation</b> Erica Hargreave, Ahimsa Media / StoryToGo / BCIT	<b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Innovative topic: <b>Innovative Assessment and Quality Assurance</b> Eliana Elkhoury, Athabasca University

	<p>Helena Prins, BCcampus; Christina Cederlof, Thompson River University</p> <p><b>Volet: Pratiques de l'enseignement fondées sur des preuves / Track: Evidence-based practices in teaching</b></p> <p>Research presentation: <i>Misinformation and Online Verification: Exploring Fact-Checking Practices by Canadian Adults</i> Giuliana Cucinelli, Leelan Farhan, Concordia University</p>		
2:15 – 3:15	<p><b>Topic: Online Teaching and Learning</b></p> <p><b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b></p> <p>Research presentation: <i>Design Principles for K-12 Online Learning: Result of a National Validation Study</i> Elizabeth Childs, Royal Roads University; Susan Crichton, DICE; and Randy Labonte, CANELearn</p> <p>Research presentation: <i>A Virtual Education Intervention to Approximate Hands-on Learning</i> Mae Doran, Athabasca University</p> <p>Research presentation: <i>Engaging learners in online spaces: Asynchronous and synchronous preferences in higher education</i> Vanessa Dennen, Jaesung Hur, Florida State University</p>	<p><b>Volet: Partenariat avec le corps professoral et l'administration / Track: Partnering with Faculty and administration</b></p> <p>Innovative topic: <b>The AMTEC History Project</b> Chris Crowley, University of British Columbia; Cindy Ives, Athabasca University; and Diane Janes, Thompson Rivers University</p>	<p><b>Volet: L'architecture de l'apprentissage / Track: Learning architecture</b></p> <p>Innovative topic: <b>The Skills Gap, Attribute Development, and the Future of Work</b> Todd Harrison, Future Design School</p>
3:30 – 4:30	<p><b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b></p> <p>Innovative topic: <i>Share Access! Using Bookdown to Remove Barriers and Open Up Learning</i> Kelly Marjanovic, Barish Golland, Trinity Western University</p>	<p><b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b></p> <p>Innovative topic: <i>Utilizing Podcasts / Podcasting in Education</i> Erica Hargreave, Ahimsa Media / StoryToGo / BCIT; Kendall Johnson, Wolf Creek School Division; Graham Herrick, SCIE; Deisy Castillo, Association de la Construction du Québec; Chris Howey, Teaching Abroad; and Jessica Cammaert Raval, Ryerson University</p>	<p><b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b></p> <p>Innovative topic: <i>From Meta-studies to Metaverse: Disrupting the University</i> Ray Gallon, University of Strasbourg; and Neus Lorenzo, University of Andorra Faculty of Education</p>
4:30 – 5:30	<b>Réseaux sociaux: réseautage rapide / Social: Speed Networking</b>		

**Lundi 2 mai / Monday, May 2**  
**10:00 – 11:15 am (EDT)**

**Remarque:** les détails du programme sont fournis dans la langue dans laquelle le matériel sera présenté. Les descriptions des sessions en français sont publiées en français. Les descriptions des sessions en anglais sont publiées en anglais.

**Note:** Program details are provided in the language in which the material will be presented. Descriptions of French sessions are published in French. Descriptions of English sessions are published in English.

**Keynote: Building a Learning Community Using Research-Practice Partnerships: What can this tell us about equity in education reform**

Elizabeth Charles, Dawson College in Montreal and SALTISE.

Research-practice partnerships (RPP; Penuel & Coburn, 2013) is a model that holds the promise of bridging the gap between knowledge generated by research and its adoption into practice and vice versa. When considered as professional development, RPP can inform the co-design process and positively position practitioners, and other stakeholders, bringing greater inclusivity to educational reforms. This keynote presents the case study of SALTISE (Supporting Active Learning and Technological Innovation in Studies of Education), a successful professional learning community that foregrounds RPP and provides an opportunity to examine and learn from the innovations that emerge from such a community



**Elizabeth Charles** is a faculty-researcher at Dawson College in Montreal and a founder and co-Director of [SALTISE](#), a community of practice supporting over 1500 educators' use of active learning. Charles has a PhD in Educational Technology, Concordia University, completed a post-doctorate in the Learning Sciences at the Georgia Institute of Technology in Atlanta, and was a visiting researcher with the Virtual Math Teams, Drexel University in Philadelphia. Her research areas include active learning, computer supported collaborative learning, physics education, co-design, techno-pedagogical innovation and future learning spaces. Her work with communities of practice and Research-Practice-Partnerships have led to her College Sector Educator Award from Society for Teaching and Learning in Higher Education and the Annual Research Recognition Award from Dawson College.

**Lundi 2 mai / Monday, May 2**  
**11:30 – 12:30 pm**

**Presentation Topic: Open Pedagogy and OER**

**Enacting Open Pedagogy and Co-mentorship Practices with Graduate Students:  
A Collaborative Autoethnographic Study**

Pamela Walsh, Cindy Ives, and Beth Perry, Athabasca University

Track: Evidence-based practices in teaching/ Volet: Pratiques de l'enseignement fondées sur des preuves  
Type: Research presentation

**Rationale for the study:** As reflective practitioners we seek answers to questions that will help us become more effective online educators, in part by moving beyond a traditional discourse approach to teaching and learning. The goal of this study is to provide recommendations that may enhance practice by critiquing the teaching and learning strategies that we currently use with graduate students. Our critique is informed by the principles of open pedagogy and co-mentorship. Co-mentorship is a relationship in which participants learn from one another in a mutually beneficial way (Murdock, et al., 2013). Open pedagogy uses various strategies to promote collaboration, connection, diversity, and democracy in teaching and learning. As educators who enact open pedagogy, we aim to empower students, reduce the hierarchy in teacher-student relationships, and move from teacher-centred to student-centred practices (Baran & AlZoubi, 2020). Our study context is an online and open university.

**Research questions:** How do our learning and teaching practices support online graduate students? What educational practices do we use that are consistent with open pedagogy? What open pedagogical

practices support co-mentorship in graduate student learning and supervision? What opportunities do we see for improving our open pedagogical practices and co-mentorship of graduate students?

**Methodology:** This is a practitioner and evidence-based study. Using collaborative autoethnography as our method, we are collecting data from critical self-reflection, dialogic conversations about our teaching and learning experiences and practices, and from review of related artefacts which may include our research journal entries, course assessments and learning activities, publications, and conference presentations. Collaborative autoethnography assumes that personal experience is imbued with social and cultural norms; therefore we critically examine our beliefs and practices. We record our individual reflections and collective conversations related to our research topic using the auto-transcription function of Microsoft Teams. Data analysis and interpretation are guided by thematic coding (Chang et. al., 2016; Saldaña, 2020). We have orientated ourselves to ethical guidelines recommended for collaborative autoethnographic research including how we implicate and represent ourselves and others (Adams & Herrman, 2020). Ethics approval for this study was granted by the Athabasca University Research Ethics Board.

### References:

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### Open Educational Practice and a Website created by Students, for Students

Marie Bartlett, Thompson Rivers University

Track: Learning experience design / Volet: Conception des expériences d'apprentissage

Type: Innovative teaching, technology or design technique

**Name of the innovation:** Open educational practice, WordPress, H5P

**Type of innovation:** Teaching and Technology

**How the innovation works:**

Through open educational practice, students choose their learning and creative activities, using open technology to build a resource.

CURN (Canadian Undergraduate Research Network) is an emerging community supported by the office of Research and Graduate Studies at Thompson Rivers University (TRU), which is located in

Secwepemcúlecw on the unceded land of the Secwépemc peoples, on the interior plateau of British Columbia.

For a number of years, groups of TRU students have been building a CURN website as part of their undergraduate research ambassador roles, adding to each other's work every semester.

Since the start of the initiative, the objective has been to create a resource that would get students interested and engaged in undergraduate research.

Designed as an open pedagogy project, student research ambassadors were given the autonomy to choose the format and the structure of the resource, decide which topics to include, what they wanted to learn from the project, and how to organize their groups and creative efforts.

As subject matter experts, the research ambassadors have been candidly sharing their excitement, their doubts, and their discoveries. Questions as: Where to start? Is research for me? Is an ethics approval process scary? What can a research project look like? What if the research doesn't go as planned? How can I find research opportunities? Will I want to do research looking forward? appear on the CURN website in a variety of innovative formats, including H5P elements, videos, and podcasts.

Research and Graduate Studies administrators, instructional designers and educational technologists, media developers, intellectual property officers, and many more staff and faculty members assisted the students as needed.

In this presentation, participants will:

1. learn about the project's processes and timelines
2. explore the CURN website
3. discuss how this project may align with their professional interests

### **Repurposing Open Education Resources (OER) Courses in Sustainable Forest Management amid Global Pandemic: Lessons Learned and Future Implementation**

Anil Shrestha, Hailan Chen, Na Zhong, The University of British Columbia;

Shiyi Zhang, Cao Long, Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet); and  
Guangyu Wang, The University of British Columbia

Track: Partnering with Faculty and administration/ Volet: Partenariat avec le corps professoral et l'administration

Type: Innovative teaching, technology or design technique:

**Name of the innovation:** Collaborative approach in designing and teaching: Repurposed OER Sustainable Forest Management (SFM) online courses Amid COVID pandemic in Asia

**Type of innovation:** Collaborative approach in designing and repurposing OER online courses

**How the innovation works:**

A team-based approach was adopted to repurpose and deliver a suite of OER courses in SFM in response to COVID pandemic induced complete halt of face-to-face teaching and learning during 2020 in forestry universities in Asia. UBC Faculty of Forestry with support from UBC CTLT and in collaboration with over 50 instructors, teaching assistants, and educational support experts from partner universities in Asia, offered of repurposed OER courses to students in partner universities in spring and winter 2020 sessions. A course-running manager oversees the overall design and delivery of the courses. UBC CTLT provided central support on instructional and learning design to review the syllabus and detailed assessment descriptions and build the courses on consistent Canvas course design template to ascertain the quality

design of the courses. Lead instructor led preparation of course content, detail syllabus and effective delivery of each course including training TAs and Co-instructors on online pedagogy making sure high quality interactive teaching and learning. TAs and Co-instructors from partner universities were responsible for facilitating the course including monitoring student's progress, grading assignment, providing individual and group feedbacks. A course-running assistant provided technical support during course delivery. This collaborative effort reached out to more than 3000 students from 168 universities in Asia and South America enrolled in 12 repurposed instructor-led online courses. Each repurposed OER course was built in user-friendly CANVAS learning environment supporting maximum instructor-student and student-student interactions. Each OER course typically consists of weekly topics and related pre-recorded video lectures, open-access peer-reviewed reading materials, and various collaborative learning activities such as weekly group discussions, critical peer review, reflection, and assignments. During teaching, our practices have moved from content-based instruction to more learner-centered learning with student participation in discourse and co-creation of course materials guided by Bloom's Taxonomy of the hierarchical ordering of cognitive skills from less complexity to highest complexity form of learning. With this approach, students learned about SFM, forest restoration, and governance issues, including open source GIS and remote sensing skills, and, most importantly, developed their critical analysis, writing, argumentation skills, and apply learned knowledge into practice to address various SFM issues in the region.

### Hands-on Workshop

**Instructional Flow Matrix: A Conceptual Tool for Hybrid Learning Design**  
**La matrice de flux instructionnel: outil conceptuel pour l'apprentissage hybride**  
 Neus Lorenzo, Universitat d'Andorra; and Ray Gallon, Université de Strasbourg

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage  
 Type: One-hour Workshop

Education during Covid suffered a planetary setback that will take years to overcome. UNESCO continues to denounce the unprecedented number of dropouts, especially among girls in undeveloped countries, and in developed countries among communities with high economic vulnerability. The European Union is calling attention to the inequity of remote teaching and learning processes during lockdowns, due to teachers' low mastery of remote learning devices and different levels of family digital readiness. Traditional learning has had to make a sudden adaptation from face-to-face to eLearning or mixed systems. Many schools are still maintaining a dual (hybrid) model, where face-to-face and eLearning can be simultaneous or asynchronous. Having some students at home and some in the classroom at the same time has forced teachers to acquire new communication skills to enable them to provide attention to both groups (modulating voice, posture, and gestures differently). They have also had to develop different abilities and teaching techniques adapted to the specific digital tool or platform used during the session at school, and to the personal immersive context of each student at home (available computer time, connectivity, personal and family environment, etc.).

Fatigue, anxiety, and emotional unbalance have been reported everywhere, creating new concerns for educators. The so-called "Zoom fatigue," for example, refers not just to tiredness from staring at a screen for too long too often, but, as Robby Nadler of UC Santa Barbara has stated, from "the complexity of the interpersonal interactions due to the specific spatial dynamics taking place in video conferences" that requires additional cognitive effort to interact with others using this medium. Instructional sessions



now need to be transformed into more active experiences, where learners can engage in tasks using gamified activities, simulated scenarios for learning-by-doing, and real interactive situations, to facilitate their engagement for more effective learning. Mixing real-life activities with digital immersive realities is becoming a new field of research, and a pedagogical challenge

To address some of the uncertainties of these extremely complex educational scenarios, we need to consider new variables when developing school projects, unit plans, and classroom/remote sessions.

This workshop presents a simple framework along three axes to identify, classify, and create different instructional flows on a visual matrix (a cube where all learning methods, approaches, or itineraries can be located). With several short hands-on activities, without any special software, attendees can explore and structure multiple possible educational approaches. The three axes are:

- The human interaction environment – the design of different spaces for teaching and learning that can range from traditional face-to-face classrooms to mediated self-access platforms, dual classes, and immersive virtual universes.
- Institutional recognition of content (curricular integration) – development of new acceptance criteria, related to social appreciation and curricular incorporation. This can vary from the most formal and structured course in a school or a university to the non-formal courses available on the Internet and can include the most informal interactions, which are also useful for students to learn.
- The cognitive learning process – an offer of multiple paradigms and taxonomies (e.g., Piaget's Constructivism, Bloom's pyramid of abstract knowledge-building, Gardner's psychological theory of Multiple Intelligences, or the neuroscientist approach of the Universal Learning Design developed in Harvard). This enriched pedagogical resource helps teachers find support when developing their teaching methods, plans, and strategies.

It is obvious that the unusual educational context resulting from this global pandemic will leave a large educational and social gap among children and youngsters in the next generation everywhere in the world. This workshop is designed to help alleviate some of the problems we are likely to encounter. The model of instructional flow it proposes can be used to reduce the digital gap. It can help provide support to girls who, in some cultures, may be prevented from going back to school in order to enter traditional family care roles, early marriages, or low-paid work-at-home labour markets. It can also strengthen students who, left to their own devices, are often vulnerable to cultural bias, privacy menaces and fake news dissemination.

### **Learning objectives:**

In this session, we will facilitate the building of a teaching and learning matrix that does not require any special tools, and can be used for any class, school or learning community:

- Explore how the post-Covid learning environment changes traditional instructional flows
- Use the instructional flow matrix to pinpoint key elements for different learning situations and environments along three axes:
  - o The human interaction environment
  - o Institutional recognition of content (curricular integration)
  - o The cognitive learning process
- Explore how to use relationships in the matrix to implement effective hybrid teaching and learning scenarios.

### Innovative Topic Discussion

#### Pandemic Pedagogy in Canada — Models and Successes

Randy LaBonte, Canadian eLearning Network

Track: Evidence-based practices in teaching/ Volet: Pratiques de l'enseignement fondées sur des preuves

Type: One-hour Innovative Topic Discussion

**Description:** As the pandemic continues, learn about the successes and failures of Canadian jurisdictions that shifted online in different ways. Research from several jurisdictions will be shared and used to offer recommendations on optimal ways to build successful blended learning. Join us to consider how Canada's experiences can help us all to shape the future of online and blended learning.

#### Learning Objectives:

1. Understand the different approaches taken in response to continuity of learning during the pandemic in each of Canada's 10 provincial and 3 territorial jurisdictions.
2. Learn about the impact of the different approaches on student learning and teacher instruction.
3. Consider how aspects of the different approaches could benefit learning in your jurisdiction.

**Lundi 2 mai / Monday, May 2**  
**12:30 – 1:00 pm**

#### Pause / Break

Rejoignez-nous dans la Wonder Room pour le réseautage.

Join us in the Wonder Room for networking.

**Lundi 2 mai / Monday, May 2**  
**1:00 – 2:00 pm**

### Presentation Topic: Digital Citizenship and Media Literacy

#### A Digital Citizenship Collaboration - Inclusion in Action

Helena Prins, BCcampus; Christina Cederlof, Thompson River University

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: Case study in innovation

**Name of the case:** A Digital Citizenship Collaboration - Inclusion in Action

**Focus of the case:** Other: all three - designing an inclusive virtual session

#### Background:

In May 2020 a group of adult special education (ASE) instructors who were meeting regularly online as a community of practice brought together by the British Columbia Council on Admissions and Transfer mused over the idea of bringing all their students together, just like they were meeting together in that moment. This idea took shape in October 2020 with an email from Christina Cederlof, an associate teaching professor in the Education and Skills Training Program in the Faculty of Education and Social Work at Thompson Rivers University (TRU) to the BCcampus Learning and Teaching team. Christina, along with Helena Prins, an advisor on the BCcampus Learning and Teaching team, and Dr. Matthew Stranach, coordinator of Educational Technologies at TRU, pulled their experience, expertise, and



passions together to create a province-wide event with the goal to provide a sense of community for ASE participants and instructors while offering an inclusive and meaningful learning experience on digital citizenship. Two successful and inclusive virtual conferences were held in 2021 (Spring and Fall), bringing together more than 100 ASE students and faculty from across BC.

**Problem addressed by the case:**

Bringing Adult Special Education students from across the province together to promote Digital Citizenship

**Solution devised:**

An invitation to participate went out to all members of the ASE community of practice, and the event was delivered in two 90-minute Zoom sessions on March 9 and 23, 2021. Eight institutions joined these sessions: TRU, Selkirk College, Vancouver Island University, Coast Mountain College, Camosun College, North Island College, Vancouver Community College, and Kwantlen Polytech University. Ahead of the sessions and in feedback surveys, many students expressed their excitement about meeting peers from around the province. Students were also given a virtual escape room experience as well as Puzzle Box activity using H5P. Connecting a SME, ed tech developer, facilitator, tech support and coordinator to pull off this meaning virtual experience.

**Misinformation and Online Verification: Exploring Fact-Checking Practices by Canadian Adults**

Giuliana Cucinelli, Leelan Farhan, Concordia University

Track: Evidence-based practices in teaching/ Volet: Pratiques de l'enseignement fondées sur des preuves

Type: Research presentation

**Rationale for the study:**

Over the past five years educators, journalists, politicians and policymakers have been scrambling to respond to the intense rise in disinformation and “fake news”. The suggested solution has primarily been linked to media literacy efforts and engagement. However, the underlying assumption is that the average citizen does not know how to differentiate between real or fake news and as such, policy and education curricula need to invest more resources in critical media skills (boyd, 2017). Furthermore, according to Dr. Jeff Share, critical media literacy recognizes power and “how” information is connected to power, and how information is being framed and communicated (McVicker, 2021).

**Research questions:**

How do Canadian adults define fact-checking and misinformation?

How do Canadian adults engage with fact-checking practices?

How are schools able to incorporate fact-checking practices in their teaching and classrooms, moving beyond media-literacy?

**Methodology:**

In this novel study, we survey 200 Canadian adults (aged 18-64) on their perception of their fact-checking and media literacy behaviours through self-reporting, contrasted with their actual process for fact-checking when engaging with a piece of news. The goal of this study is to assess the fact-checking behaviours and perceptions of Canadian adults. First, we ask participants questions about their confidence and practices in their media literacy and fact-checking skills. Then, we provide them with a headline and excerpt from

an article. The participants' task is to determine whether the article is real or fake, and to explain in detail the steps they took in order to arrive at their decision.

### References:

- boyd, d. (2017). Did media literacy backfire? *Journal of Applied Youth Studies*, 1(4), 83-89. Bulger, M., & Davison, P. (2018). The promises, challenges, and futures of media literacy. *Journal of Media Literacy Education*, 10(1), 1-21.
- Bulger, M. (2012). Measuring media literacy in a national context: Challenges of definition, method and implementation. *Media Studies*, 3 (6), 83-104.
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- Mihailidis, P., & Viotty, S. (2017). Spreadable Spectacle in Digital Culture: Civic Expression, Fake News, and the Role of Media Literacies in "Post-Fact" Society. *American Behavioral Scientist*, 61(4), 441–454. <https://doi.org/10.1177/0002764217701217>

## Innovative Topic Discussion

### Exploring the Use of NFTs in Open Education for Sustainable Development, Creativity and Innovation Explorer l'utilisation des NFTs dans l'éducation ouverte pour le développement durable, la créativité et l'innovation

Erica Hargreave, Ahimsa Media / StoryToGo / BCIT

Track: Institutional technology/ Volet: La technologie institutionnelle

Type: One-hour Innovative Topic Discussion

With the growing hype, success and Cinderella stories around NFTs (non-fungible tokens) for creatives in 2021, it begs the question could NFTs poise a potential sustainable funding solution for open education and open culture? Could NFTs drive new creativity and innovation among educators and students? It is these questions that we will be exploring in this session, inspired by early research into NFTs as a solution for open education and open culture (<https://storytogo.ca/2021/10/nft-non-fungible-tokens-a-sustainable-funding-solution-for-open-education-and-open-culture/>), as well as on-going experiments with NFTs around some educational storytelling projects intended to raise funds, and build greater levels of engagement and community collaboration around these educational storytelling projects (<https://storytogo.ca/2021/11/funding-documentary-storytelling-open-educational-resources-through-nft-collectibles-an-experiment/>).

Building from there, in this session we will discuss the benefits and challenges that NFTs hold in education, as well as brainstorm ways that attendees can utilize NFTs in their work.

**Learning objectives:** In this session, we will:

- learn what NFTs are
- describe the history of NFTs
- identify NFT success stories
- discuss the benefits and evolving possibilities for NFTs in education
- debate the challenges that NFTs poise in education
- brainstorm ways of incorporating NFT in our educational initiatives

**Innovative Assessment and Quality Assurance**

Eliana Elkhoury, Athabasca University

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: One-hour Innovative Topic Discussion

Innovation in assessment is a contentious topic. The most prominent two camps of thoughts are divided in terms of quality assurance, validity, and reliability and sometimes rigour on one hand and equity, inclusion, and accessibility on the other. Despite the controversy, there are instructors who are using innovative approaches to assessment. Some instructors use the innovative approaches to assessment in formative ways and others use them in summative assessments. In the last two years, the pandemic also encouraged instructors to be more innovative with their assessment designs. Exams are not always the best way to assess students' learning. New technologies, open education, work integrated learning, experiential learning and many other factors are an indication that there is a need to assess students in a more meaningful way. Exams raise concerns about the alignment of assessment with the learning objectives which is also known as constructive alignment. When exams are held online, a different layer of complexity unfolds with cheating and equity. In brief, exams are not the best way to assess students, there are many instructors who don't use exams anymore but the question of quality assurance remains at the forefront. Quality assurance in this case refers to both the traditional and the contemporary approaches of quality including the validity, reliability, as well as the constructive alignment and the relationship between assessment and teaching and learning. How do I make sure that my innovative assessment is measuring the intended learning outcome and how do I manage grade inflation are some of the questions often asked by instructors.

**Learning objectives:**

The goal of this session is to discuss innovative assessments design and possible strategies and mindset that instructors can use to guarantee quality assurance.

**Lundi 2 mai / Monday, May 2****2:15 – 3:15 pm****Presentation Topic: Online Teaching and Learning****Design Principles for K-12 Online Learning: Result of a National Validation Study**

Elizabeth Childs, Royal Roads University; Susan Crichton, DICE; and Randy Labonte, CANeLearn

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: Research presentation

**Rationale for the study:**

During the various waves of the COVID-19 pandemic beginning early March 2020, emergency remote learning has been employed in a variety of ways by K-12 educators across the system (Barbour, M.K., et al., 2020). In February 2021 the Canadian eLearning Network (CANeLearn) began engaging educators across Canada in facilitated conversations about teaching in online learning environments starting in British Columbia in Spring 2020. The purpose of that study was to gain an understanding of the lived experiences of online educators and those who came to online education during the COVID-19 Pandemic. In March 2021 CANeLearn published the report Design Principles for Online Learning: BC Study (Crichton & Kinsel, 2021) which shared findings from the British Columbia study. In November 2021, the study was expanded

to include educators from across Canada. This National Validation Study builds on the BC findings, using many of the same processes and approaches to assess the efficacy of the initial Design Principles for K-12 Online Learning in the broader Canadian context.

### **Research questions:**

The purpose of the national study was to revisit the initial design principles developed by educators in early 2021 and test their efficacy and relevance with a national audience. Specifically, the research question that framed the study was, to what extent do the initial design principles for K-12 online learning resonate nationally?

### **Methodology:**

The process for the National Validation Study followed a design thinking cycle and participatory research approach (Crichton & Kinsel, 2021). Design Thinking and Participatory Design approaches were chosen for this study as they invite engagement, feedback and open-ended responses from participants who are experiencing the phenomenon that is being studied. Both approaches allow for and encourage the participants to challenge, testing, and contribute to the revision of findings. Survey data was analyzed using descriptive statistics and thematic analysis. An inductive coding procedure was used to analyze the data (Glaser & Strauss, 1967; Corbin & Strauss, 2008).

### **References:**

- Barbour, M., Nagle, J. & LaBonte, R. (December 2020). Stories from the Field: Voices of K-12 Stakeholders During Pandemic A special report of the Canadian eLearning Network. Stories from the Field: Voices of K-12 Stakeholders During Pandemic A special report of the Canadian eLearning Network DO - 10.13140/RG.2.2.33552.64008.
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## **A Virtual Education Intervention to Approximate Hands-on Learning** Mae Doran, Athabasca University

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage  
Type: Research presentation

### **Rationale for the study:**

As yet, technology cannot offer online learners a way to physically touch real objects in a remote learning environment. The gap in provisioning hands-on learning online is widening due to the global population explosion and society's quantum move to a net-connected world. A conundrum is growing where organizations are bound to continue using existing equipment, labs, and worksites to teach physical hands-on skills yet need to move curriculum online. Further, the quality of the pedagogy vis-à-vis the needs of

tech-oriented twenty-first-century learners, as well as wide accessibility to many demographics at minimal cost, are factors of great concern. Held against the three vectors of the iron triangle of distance education — quality, affordability, and accessibility — this study explored a pedagogical-technological intervention named the Human Avatar and Learning Online (HALO) which approximates hands-on learning online.

#### **Research questions:**

What is the quality of HALO as an online experience approximating real-world, hands-on learning via task-centred learning praxis?

Was the skill attained correctly according to the attainment task prior to ever touching the physical objects?

How important to the avatar experience was the task-centred learning pedagogy that organized it?

What are the impacts or refinements to task-centred learning praxis and learning-by-doing in this online format?

#### **Methodology:**

The intervention was evaluated using design-based research methodology using mixed methods (QUAL and QUAN) collected in iterations informed by task-centred learning theory criteria (quality) conducted with remote learners via broadband connectedness (accessibility) while using existing real-world facilities and readily available retail technology (affordability).

### **Engaging learners in online spaces: Asynchronous and synchronous preferences in higher education**

Vanessa Dennen and Jaesung Hur, Florida State University

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: Research presentation

#### **Rationale for the study:**

In non-pandemic times, modality choice is an important part of higher education, and an outcome of the pandemic is that more instructors and students have concrete experience with online learning interactions. These experiences have ramifications for future modality choices as well as instructional design choices that affect learner engagement.

This study builds upon the notion that transactional distance should be minimized (Moore, 1993) and social presence maximized (Lowenthal & Dennen, 2017; Richardson & Lowenthal, 2017) to support learning in online environments, and that learner satisfaction will drive learning-related behaviors (Weidlich & Bastiaens, 2018). This study investigates learner self-reported behaviors and preferences in both synchronous and asynchronous learning environments, which have implications for how instructors design online course interactions.

#### **Research questions:**

1. After the period of remote learning, how likely are students to enroll in future online classes? Does it differ by modality?

2. What differences do students perceive across modalities?

3. What learning behaviors do students report in each modality?

4. What would increase student participation in synchronous and asynchronous class discussions?

#### **Methodology:**

This study was approved by the researchers' Institutional Review Board. Participants were 200 college students at a large research university in the United States. Participants were recruited via a study pool

in which students voluntarily participate in research for course credit. Alternate opportunities to earn the credit are offered to students who do not wish to participate in research, and the researchers had no relationship to the classes or students participating in the study pool.

The data were collected in Spring 2021, at which time students had experienced a semester that started in person and ended remotely (Spring 2020), a summer term that was fully remote, and a semester that included a mix of campus and remote classes (Fall 2021). Remote learning was most often synchronous, with courses taught via zoom. In contrast, the university's pre-existing online course offerings used asynchronous learning and relied on discussion boards for peer interaction.

The online survey asked students to share information about their online learning practices and preferences. Data analysis focused on descriptive statistics for closed items and thematic clustering for open items.

### References:

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- Richardson, J. C., & Lowenthal, P. (2017). Instructor social presence: Learners' needs and a neglected component of the community of inquiry framework. In A. L. Whiteside, A. G. Dikkers, & K. Swan (Eds.), *Social Presence in Online Learning: Multiple Perspectives on Practice and Research* (pp. 86-98): Stylus.
- Weidlich, J., & Bastiaens, T. J. (2018). Technology matters—The impact of transactional distance on satisfaction in online distance learning. *International Review of Research in Open and Distributed Learning*, 19(3).

## Innovative Topic Discussion

### The AMTEC History Project

Chris Crowley, University of British Columbia; Cindy Ives, Athabasca University; and Diane Janes, Thompson Rivers University

Track: Partnering with Faculty and administration/ Volet: Partenariat avec le corps professoral et l'administration

Type: One-hour Innovative Topic Discussion

The now defunct "AMTEC" (Association for Media and Technology in Education in Canada) was a non-profit, Canadian professional association supporting educators in the pedagogical use of media & educational technology to enhance teaching & learning from kindergarten to post-secondary education between 1973 and 2007. The key objective is to collect and preserve the history of educational technology in Canada by digitizing, protecting, centralizing and making accessible the collection of; print materials, e.g., newsletters, board minutes, conference materials; digital materials, e.g., CDs and archived websites; and through photography preserve artifacts such as pins, awards and even a quilt. The purpose is to support future research by educators, educational technologists, researchers, students and historians. The scope includes collecting and organizing materials currently distributed among former AMTEC members, related organizations and Library and Archives Canada. The project intends to produce a video interview series of 4-6 key original members who have the AMTEC institutional

memory. The project will involve past AMTEC members from coast to coast to coast and will be promoted to the membership of the CNIE/RCIÉ.

### **Learning Objectives:**

The main objective is to collect and preserve the history of educational technology in Canada by digitizing, protecting, centralizing and making accessible the collection and through photography preserve artifacts (see description for more details). To promote an awareness of AMTEC and to make the history of AMTEC more accessible by digitizing paper-based materials, collecting and reformatting older digital information from CDs, DVDs, etc., photographing artifacts and producing interviews of key AMTEC members, many of whom have been retired for many years. This content will be digitally stored in a central location and publicly accessible via a portal from the CNIE/RCIÉ website. As a kindergarten to post-secondary national professional Canadian organization for educators who pedagogically integrate educational technology, it is incumbent on the CNIE/RCIÉ to support initiatives to record and preserve the past and make it accessible to future generations of Canadian educators and researchers.

### **The Skills Gap, Attribute Development, and the Future of Work**

Todd Harrison, Future Design School

Track: Learning architecture/ Volet: L'architecture de l'apprentissage

Type: One-hour Innovative Topic Discussion

We are in the midst of a skills revolution: more and more employers and postsecondary institutions are actively seeking candidates who can demonstrate future ready attributes like critical thinking, empathy, and problem solving — and are shifting their recruitment and evaluation practices accordingly. As the skills gap continues to widen, the clear message emerging on a global level is that shifting to an attribute-based approach to education is an urgent and pressing concern — that there is literally no time to lose. This discussion will unpack the key, future ready attributes identified by top Canadian employers and the World Economic Forum, and prompt participants to share their successes and challenges in implementing an attribute-based approach to learning across their school communities.

### **Learning Objectives:**

Through this topic discussion, participants will: - Understand the importance of supporting Canadian students as they develop key attributes - Assess the current state of attribute development and measurement in their learning community - Share successes and challenges with one another - Identify next steps that drive toward action

**Lundi 2 mai / Monday, May 2**  
**3:30 – 4:15 pm**

**Innovative Topic Discussion**

### **Share Access! Using Bookdown to Remove Barriers and Open Up Learning**

Kelly Marjanovic, Barish Golland, Trinity Western University

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: One-hour Innovative Topic Discussion



Access denied! You do not have permission to view this file! Sound familiar? Imagine how our learners must feel as they take all the necessary steps to begin a course, only to encounter barrier after barrier. Low Wi-Fi causing network disruptions, logging in to multiple sites to view resources, trying to locate a specific unit topic, and having screen display issues.

In this session we will present our use of Bookdown, an open-source R package that helped us remove some of the barriers for learners and instructors. We will share how we moved some of our courses to Bookdown after hearing our Nigerian students had limited access to Moodle. We will explore the many advantages of using Bookdown, such as accessing course content outside of our LMS, providing a collaborative infrastructure for design and maintenance (GitHub), displaying content as a searchable book, and providing accessible versions (ePub/PDF). We will explore other advantages, as well as some challenges we have come across.

The second half of this workshop will allow participants to present their own course challenges. Using Liberating Structures, participants will draw from the expertise of colleagues and consider recommendations to address barriers for learning.

Learning objectives: Learners will

- process what was presented and think through how it applies to their own context.
- suggest their own design challenges, explore their needs and give and get help from their peers.
- consider their own course design needs and select a topic they would like to get advice on.
- draw from the expertise of their colleagues and consider recommendations to address their situation.

### **Utilizing Podcasts / Podcasting in Education Utilisation des Podcasts / Podcasting dans L'Éducation**

Erica Hargreave, Ahimsa Media / StoryToGo / BCIT; Kendall Johnson, Wolf Creek School Division; Graham Herrick, SCIEEX; Deisy Castillo, Association de la Construction du Québec; Chris Howey, Teaching Abroad; and Jessica Cammaert Raval, Ryerson University

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: One-hour Innovative Topic Discussion

It's an exciting time for podcasters. As Miranda Katz of Wired Magazine states, "People are really listening and want to consume all of the content that is there and available. There's a level of dedication that comes from podcast listeners that you don't otherwise find. And now the numbers prove it. Podcasts aren't a bubble, they're a boom — and that boom is only getting louder."

As educators, this presents a number of opportunities:

- the opportunity to create podcasts of our own, as a means of sharing ideas and educating;
- the opportunity to bring the voices and ideas of many other people from across the globe into our classrooms to learn from via podcasts; and
- the opportunity to get our students excited about creating their own podcasts, as both a means of creative expression and a way of organizing and presenting their own ideas and that which they learn through research and their studies.



Added to that with the recent advent of social audio and access to the live studio audience recording of some podcasts, the opportunity to create interactive, engaging learning experiences with podcasting is ever increasing.

In this session we will explore the possibilities that podcasting presents to both educators and students.

Learning objectives: In this session, we will:

- define podcasts and podcasting,
- discover what goes into creating a podcast,
- brainstorm ways of using podcasts in education,
- discuss the benefits and challenges with encouraging students to create podcasts as a part of their studies
- share resources to help in utilizing podcasts and podcasting in education.

### **From Meta-studies to Metaverse: Disrupting the University**

#### **Des méta-études au Métavers : rompant l'université**

Ray Gallon, University of Strasbourg; and Neus Lorenzo, University of Andorra Faculty of Education

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: One-hour Innovative Topic Discussion

As early as 2012 the authors of this proposal began advocating for universities to adopt a connectivist paradigm and embrace the then-nascent digital transformation. The Covid crisis forced the university to plunge into distance learning. The process was chaotic, and for the most part, we continued to do at a distance what we did before in the classroom – teach what others have written about. We refer to this mode of education as “meta-studies.”

At the time of this writing, we are entering year three of the Covid era, and are just starting to catch up to what is required for effective distance learning. While we have been, to paraphrase Thoreau, existing in the lee of the winds of change, the Metaverse happened.

The term comes from a 1992 science fiction novel by Neal Stephenson, and it is generally used, today, to refer to an augmented internet in which 3D virtual worlds are networked together into a single, vast set of parallel realities. While this is often expressed in terms of entertainment (games, interactive stories, etc.), the Metaverse represents a dynamic environment for every aspect of life, including commerce, experiments with crypto currencies, industrial development, social experiences, and learning situations.

In this presentation we dive into the immersive and pervasive nature of Metaverse technologies (e.g. augmented and virtual realities, block chain, digital currencies, the Internet of Things or IoT, Artificial Intelligence – including natural language recognition and processing, etc.). How should universities respond to these technologies, which have the power to circumvent traditional sources of teaching and learning with powerful, personalized tools? When everyone has their personal version of the Metaverse, will we have any shared common reality? How will we define, and work for, the common good?

It is clear that these technologies are coming, for better or for worse, and that the current university paradigm is no longer appropriate. The current system builds knowledge around paper-based

publishing and peer review that demands time and perpetuates multiple inequities both on academic and economic levels. Then it “transfers” these meta-studies based on subject-matter expertise. Often, the material we are teaching, much like a virus, has mutated in the time it takes to verify it.

Meanwhile, Internet and the coming Metaverse churn out reams of information faster than we can keep up, and often without any sort of verification or confirmation. They are also creating new social relationships that can span continents, but that can also foster new forms of delinquency, hatred, and violence. Can we create a new paradigm for the university that can lead intellectual development in the Metaverse context, and set examples for upholding truth, defending the scientific method, and building a culture of lifelong learning? Are we able to effectively use the Metaverse to build respect for privacy and human rights? Can we use it to think critically about new proposed laws, to rebuild democracy and re-establish trust? Because if we can’t, our students will enter this parallel universe on their own, accommodating to whatever leadership they find.

These are the questions we will raise for discussion, with the idea that we must not only anticipate change, but lead the way to a humanist metaverse. Otherwise, we risk having yet another crisis forced upon us, with the possibility of becoming irrelevant if we can’t keep up.

#### **Learning objectives:**

- Identify and analyze the Metaverse concept and how it affects communication, private life, work, education, and the entire human context.
- Discuss the need for a major paradigm shift in the university before the Metaverse catches us up short.
- Explore what kind of paradigm change might be effective in creating a sustainable future for the university in the Metaverse.their studies
- share resources to help in utilizing podcasts and podcasting in education.

**Lundi 2 mai / Monday, May 2**  
**4:30 – 5:30 pm**

#### **Speed Networking**

Just because ours is a virtual conference does not mean you won’t meet people. In fact, meeting people and networking is the goal of this session.

## Jour deux / Day Two Mardi 3 mai / Tuesday, May 3

**Remarque:** toutes les heures de l'Est. Lorsque vous ajoutez ces sessions à votre calendrier, veuillez prendre en compte le fuseau horaire.

**Note:** All times Eastern. When adding these sessions to your calendar, please take the time zone into consideration.

### Day at a Glance

9:30 – 10:00	<b>Early Morning Networking</b>		
10:00 – 11:15	<b>Keynote: Equity in the Academy: Balancing Challenges and Opportunities When Working Towards a Culture Shift</b> Lisa White, Concordia University		
11:30 – 12:30	<b>Topic: Trends and Issues</b>  <b>Volet: La technologie institutionnelle / Track: Institutional technology</b>  Innovative teaching, technology or design technique: <i>Micro-credentials and Blockchain in Education</i> Rory McGreal, Athabasca University  <b>Volet: Pratiques de l'enseignement fondées sur des preuves / Track: Evidence-based practices in teaching</b>  Research presentation: <i>The Challenges of Maker Education in Formal and Informal Education Settings</i> Nathalie Duponsel, and Ann-Louise Davidson, Concordia University	<b>Topic: STEM teaching and learning</b>  <b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Innovative teaching, technology or design technique: <i>A kind of "What if we tried this?" Approach to Learning Physics</i> Javier Toro, Simple Science Education Co.  <b>Volet: La technologie institutionnelle / Track: Institutional technology</b>  Research presentation: <i>Extending the technology acceptance model to explore K-12 pre-service teachers' intentions to use augmented reality (AR) tools in mathematics teaching.</i> Ji Yae Bong, Concordia University; Hunhui Na, Florida State University; Danielle Van Patter, Ana Victoria Balderas, Samira Karim, Concordia University; and Naemeh Sajadi, the Ministry of Education, Iran  <b>Volet: Pratiques de l'enseignement fondées sur des preuves / Track: Evidence-based practices in teaching</b>  Research presentation: <i>Remote Science Inquiry Instruction</i> Patrick Wells, Karen Goodnough, Saiqa Azam, and Gerald Galway, Memorial University of Newfoundland	<b>Volet: Partenariat avec le corps professoral et l'administration / Track: Partnering with Faculty and administration</b>  Innovative topic: <b>The Looming Reskilling Challenge: Endless Opportunity, Even More Complexity for Higher and Continuing Education</b> Saul Carliner, Concordia University
12:30 – 1:00	Break		
1:00 – 2:00	<b>Topic: Cases and Techniques Used in the Pandemic</b>  <b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Case study in innovation: <i>OMG My Orientation Was Fantastic!</i> Simon Strudwick and Marci Araki, STEMCELL Technologies  <b>Volet: Partenariat avec le corps professoral et l'administration / Track: Partnering with Faculty and administration</b>  Case study in innovation: <i>Digital Learning Exchange: A Case Study in Transformative Communities of Practice</i>	<b>Topic: Emerging Technology</b>  <b>Volet: La technologie institutionnelle / Track: Institutional technology</b>  Innovative teaching, technology or design technique: <i>Delivering experiential education via AI-powered simulation: Addressing pedagogical, usability, and implementation issues</i> Glen Farrelly, Athabasca University  <b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Case study in innovation: <i>[Case Study] Integrating Virtual Reality in Higher Education: The Faubourg à m'lasse</i>	<b>Volet: Partenariat avec le corps professoral et l'administration / Track: Partnering with Faculty and administration</b>  Innovative topic: <b>Becoming a Champion</b> Jamie Noakes, Thompson Rivers University

	<p>Diane Janes, Thompson Rivers University; and James Beres, Southern Alberta Institute of Technology</p> <p><b>Volet: Pratiques de l'enseignement fondées sur des preuves / Track: Evidence-based practices in teaching</b></p> <p>Research presentation: <i>Supporting Self-Regulated Learning in Hybrid Environment to Mitigate Impact of the COVID-19 Pandemic: An Autoethnography</i> Lukas Liu, Columbia University</p>	<p>Antonia Tripa and Ping Ng, KnowledgeOne</p> <p>Innovative teaching, technology or design technique: <i>"Let's try this again.": Deliberate Practice in Teacher Education using Virtual Reality Scenarios</i> Teresa Hernandez-Gonzalez and Remi Arora, Concordia University</p>	
2:15 – 3:15	<p><b>Topic: Emerging Technology</b></p> <p><b>Volet: La technologie institutionnelle / Track: Institutional technology</b></p> <p>Innovative teaching, technology or design technique: An augmented reality (AR) application design for teaching and learning K-12 mathematics concepts Hunhui Na, Florida State University; Ji Yae Bong, Concordia University</p> <p><b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b></p> <p>Case study in innovation: <i>Capturing Reality: Using Photogrammetry in Education</i> Ping Ng and Daniel Dorion, KnowledgeOne</p>	<p><b>Volet: L'architecture de l'apprentissage / Track: Learning architecture</b></p> <p>Innovative Topic: <b>OERs and Indigenous course development: Another form of colonial exploitation?</b> Joanne Etmanski Astorga, GEVC Inc; And Laura Arndt, Centennial College (on secondment)/ Six Nations of the Grand; and River Joanne Etmanski Astorga, GEVC Inc.</p>	<p><b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b></p> <p>Innovative Topic: <b>What Is Learning Experience Design (And Does Adopting It Require You to Leave ADDIE and SAM Behind?)</b> Saul Carliner, Concordia University</p>
3:30 – 4:30	<b>Birds of a Feather</b>		

**Mardi 3 mai / Tuesday, May 3**  
**10:00 – 11:15 am**

### Keynote:

### Equity in the Academy: Balancing Challenges and Opportunities When Working Towards a Culture Shift

Lisa White, Concordia University

The prospect of developing an equity practice in education can be daunting. To begin with, the academy, at its inception, was designed to be exclusionary, in addition, today's educators are increasingly stretched by day-to-day demands and societal changes. So getting it wrong, at least occasionally, is guaranteed. This keynote explores historical and contemporary inequities in the academy, the challenges inherent in embedding an inclusive practice in higher education, and why adopting and maintaining an equity lens, despite the pitfalls, will result in necessary culture shifts.



**Lisa White** is the inaugural executive director of equity at Concordia University. Lisa began her advocacy and policy work in academia when she joined the Concordia Student Union Advocacy Centre in 2006. A Concordia alum, she has held key administrative roles such as Director of the Office of Rights and Responsibilities. Leading the Equity Office, Lisa oversees the strategic implementation of recommendations centered on advancing equity, diversity, and inclusion at Concordia. Lisa's work is informed by over a decade of experience in addressing issues of discrimination and equity in higher education spaces as well as social justice and community-based approaches.

**Mardi 3 mai / Tuesday, May 3**

**11:30 am – 12:30 pm**

**Presentation Topic: Trends and Issues**

### **Micro-credentials and Blockchain in Education**

Rory McGreal, Athabasca University

Track: Institutional technology/ Volet: La technologie institutionnelle

Type: Innovative teaching, technology or design technique

**Name of the innovation:** Micro-credentials and Blockchain

**Type of innovation:** Technology

**How the innovation works:**

Micro-credentials can fit seamlessly into credit recognition frameworks, and be instantly verifiable. They can include all necessary information about the learning it represents. Blockchain enhances their efficiency and security, storage and management of credentialing data. Students control their own attestations of their knowledge and skills.

**How to apply the technique:**

Micro-credentials can be applied as easily accessible and transparent evidence of skills or knowledge, certified by an authority. They can be applied directly by learners primarily as proof to employers, and others of their qualifications, but also for a multitude of other purposes, such as accumulating or stacking credits towards a specific qualification, as evidence of skills or competencies. Blockchain in education is in the very early stages of adaptation. It can be described as a digital, ledger that is distributed on a network. The transactions are secured with encryption, verified and recorded by the network nodes. The original records cannot be deleted or changed and all changes can be easily traced as each new block in the chain is time-stamped.

### **The Challenges of Maker Education in Formal and Informal Education Settings**

**Les défis de l'éducation makers dans les contextes d'éducation formelle et informelle**

Nathalie Duponsel, and Ann-Louise Davidson, Concordia University

Track: Evidence-based practices in teaching/ Volet: Pratiques de l'enseignement fondées sur des preuves

Type: Research presentation

**Rationale for the study:**

Rapid advances in technology, globalization, and demographic shifts are resulting in unprecedented changes in our lived experience (Care, Kim, Vista, & Anderson, 2018; Education Commission, 2016; Grand-Clements, Devaux, Belanger, & Manville, 2017; OECD, 2016). As a result, leaders in industry (World Economic Forum, 2020) and education systems around the world (Care et al., 2018), including Canada (Government of Canada, 2016), are increasingly calling for education that fosters skills such as creativity, problem-solving, and collaboration. Popularly referred to as 21st century skills, these skills are believed to be essential for functioning and thriving in the Fourth Industrial Revolution (Schwab, 2016) that we have entered. Many argue that making (creating or modifying an artefact by hand or with digital fabrication tools, using skills from multiple disciplines) is ideal for developing these skills in learners (Halverson & Sheridan, 2014; Davidson & Price, 2017), but integrating maker learning experiences into formal and non-formal (e.g. libraries, museums) education settings is challenging given current education culture and institutional structures (Davidson & Duponsel, 2021).

**Research questions:**

The aim of this study was to identify the challenges that educators encounter when designing and facilitating maker learning experiences so that recommendations can be made to formal and non-formal education institutions to better provide the necessary conditions for learning through making.

**Methodology:**

Semi-structured interviews were conducted with 30 educators from schools, colleges, universities, libraries, museums, and after-school youth centres. Open and axial coding of the interview transcripts was conducted to identify themes related to the challenges educators encountered when designing and facilitating maker learning experiences with learners.

**References:**

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World Economic Forum (2020). Schools of the Future: Defining New Models of Education for the Fourth Industrial Revolution. <https://www.weforum.org/reports/schools-of-the-future-defining-new-models-of-education-for-the-fourth-industrial-revolution>

### **Presentation Topic: STEM teaching and learning**

#### **A kind of "What if we tried this?" Approach to Learning Physics Une approche de l'apprentissage de la physique du type "Et si on essayait ça ?"**

Javier Toro, Simple Science Education Co.

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage  
Type: Innovative teaching, technology or design technique:

**Name of the innovation:** Simple Science

**Type of innovation:** Teaching

**How the innovation works:**

A kind of "What if we tried this?" approach is proposed to a) introduce fundamental concepts and b) develop problem-solving skills. In this approach, students are presented with a sequence of guiding questions, each of which builds on the previous one, for them to answer. An answer to each question is provided for students to compare with their own. Students end up providing a statement on the concept explored or an answer to the problem initially posed.

**How to apply the technique:**

Students are given an introductory presentation of the concept to be explored or problem to be solved. Students are then asked a series of questions on which they have to reflect and give an answer. One question is asked at a time. Students can then compare their answer with the answer previously prepared by the teacher so that they can check the weaknesses and strengths of their answers. Students should also have the opportunity to reflect on why the question was asked.

#### **Extending the technology acceptance model to explore K-12 pre-service teachers' intentions to use augmented reality (AR) tools in mathematics teaching.**

Ji Yae Bong, Concordia University; Hunhui Na, Florida State University; Danielle Van Patter, Ana Victoria Balderas, Samira Karim, Concordia University; and Naemeh Sajadi, the Ministry of Education, Iran

Track: Institutional technology/ Volet: La technologie institutionnelle  
Type: Research presentation

**Rationale for the study:**

This study will examine the K-12 pre-service teachers' intentions to use AR technology and attitudes toward using AR technology for teaching mathematics based on the extended Technology Acceptance Model (TAM; Davis et al., 1989) using an online survey instrument. The TAM and its various extensions have been used to understand how users come to accept and use a given technology in diverse contexts.

The model suggests that there are a number of factors that influence the users' intentions and attitudes toward using technology. This study will include the factors from the original TAM model (i.e., perceived ease-of-use (PEOU) and perceived usefulness (PU)) and other factors from the extended TAM models (e.g., AR app apprehensiveness, perceived behavior of control, perceived enjoyment). This study will fill a gap in the literature related to using AR in K-12 learning contexts by extending the TAM. The findings would also be useful to understand the diverse groups of pre-service teachers' technology acceptance for their teaching and student learning.

### Research questions:

1. What factors influence pre-service teachers' intentions to use AR technology and attitudes toward using AR technology for teaching mathematics?
2. How do these factors impact pre-service teachers' intentions to use AR technology and attitudes toward using AR technology for teaching mathematics?
3. To what extent do these factors influence pre-service teachers' intentions to use AR technology and attitudes toward using AR technology for teaching mathematics?

### Methodology:

The participants are pre-service teachers in universities in Canada. They will complete an extended TAM questionnaire that includes measures of technology use (2 items), AR app apprehensiveness (2 items), perceived ease of use (7 items), perceived usefulness (6 items), behavioral intention (3 items), attitude toward use (6 items), perceived behavior of control (5 items), and perceived enjoyment (4 items) along with the demographic questions and three open-ended questions. This questionnaire was adapted from the studies of Fussell and Truong (2021); Iqbal and Sidhu (2021); Lau and Woods (2008); Pittalis (2021); and Reinhart and Banister (2009). The five-point Likert scales (from 1, strongly disagree, to 5, strongly agree) will be used. This data collection will be conducted during March 2022. Descriptive statistics, ANCOVA, factor analysis, structural equation modeling (SEM) will be used to analyze data.

### References:

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### **Remote Science Inquiry Instruction**

Patrick Wells, Karen Goodnough, Saiqa Azam, and Gerald Galway, Memorial University of Newfoundland

Track: Evidence-based practices in teaching/ Volet: Pratiques de l'enseignement fondées sur des preuves

Type: Research presentation:

#### **Rationale for the study:**

This study will examine a hands-on lab conducted by students in remote locations, at home, and in schools, with remote guidance and support by teachers. Remote science inquiry instruction (RSII) employs remote technology to manage and support students as they collect data to answer questions as part of confirmation, structured or guided inquiry (Banchi & Bell, 2008). The RSII of this study was a structured inquiry that examined motion on an inclined plane and required the students to use the LabPro® and Motion Sensor 2® of Vernier Inc. (<https://www.vernier.com/>). This case study is unique and fills a literature gap by reporting situation-specific and contextual factors for a remote high school science inquiry lesson.

#### **Research questions:**

What teacher learning results from conducting remote science inquiry instruction?

What student outcomes result during the enactment of a remote inquiry using Vernier technology?

#### **Methodology:**

A 5-member lesson study group developed the motion on an inclined plane investigation over 14 weeks. This naturalistic investigation is a case study (Stake, 1995) where the case is the teachers and students conducting the RSII lesson (the research lesson of the lesson study). Using RSII, two teachers conducted the motion on an inclined plane investigation with students located in remote sites in Newfoundland and Labrador. The Newfoundland and Labrador English School District consented to our remote research and the research protocols were approved by ICEHR of Memorial University.

#### **References:**

Banchi, H, and Bell, R. (2008). "The many levels of inquiry." *Science and children* 46(2), 26-30.

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### **Innovative Topic Discussion**

#### **The Looming Reskilling Challenge: Endless Opportunity, Even More Complexity for Higher and Continuing Education**

Saul Carliner, Concordia University

Track: Partnering with Faculty and administration/ Volet: Partenariat avec le corps professoral et l'administration

Type: One-hour Innovative Topic Discussion

Here's the good news: With automation and AI expected to replace millions of jobs and reshape millions more, the demand for education is expected to grow. But here's the challenge: six-month coding courses and similar quickie, broadly focused approaches are not likely to provide the preparation workers need. This session explores why and suggests strategies that education professionals can adopt to prepare for the growth in workers seeking up- and reskilling from academic and continuing education programs,

and the types of experiences institutions can provide to support workers in remaining employable (Carliner, Driscoll & Thayer, 2021).

### Learning Objectives:

- Recognize the bifurcated nature of emerging employment, with the largest opportunities at either the lower-skilled or highly skilled ranges of the spectrum
- Characterize skills gaps between current and emerging jobs
- Recognize the impact of working conditions in emerging areas of employment
- Identify supports, programs, and policies that could address these challenges

### References:

Carliner, S., Driscoll, M. & Thayer, Y. (2021.) Career Anxiety: Guidance Through Tough Times. Westwood, MA: International Career Press.

**Mardi 3 mai / Tuesday, May 3**  
**12:30 – 1:00 pm**

### Pause / Break

Rejoignez-nous dans la Wonder Room pour le réseautage.  
Join us in the Wonder Room for networking.

**Mardi 3 mai / Tuesday, May 3**  
**1:00 pm – 2:00 pm**

### Presentation Topic: Cases and Techniques Used in the Pandemic

#### OMG My Orientation Was Fantastic!

Simon Strudwick and Marci Araki, STEMCELL Technologies

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage  
Type: Case study in innovation

**Name of the case:** Redesigning a Remote New Hire Orientation

**Focus of the case:** Design

#### Background:

When our new hire orientation moved online the initial focus was on providing as much information as possible in a lecture format. The participants complained that there was too much information, the presenters complained that important information was getting lost, and the program sponsor complained that none of this met her requirements which were about delivering a great experience and not a knowledge dump.

#### Problem addressed by the case:

Participants felt overwhelmed by too much information delivered during a three day remote new hire orientation, and the orientation did not meet the goals of the program sponsor.

#### Solution devised:

I designed a five-part presentation format that emphasized storytelling and hands-on activities, and was simple for all presenters to follow.

### **Process for developing the solution:**

I used a step-by-step process to identify key messages in existing presentation and remove "nice to know" information (which reduced the average length by 50%), redesign the curriculum to create a logical flow to the order of presentations, identify gaps in the curriculum where additional presentation were required, and map opportunities for fun, wow, and inclusive experiences onto the curriculum.

## **Digital Learning Exchange: A Case Study in Transformative Communities of Practice** **Échange d'apprentissage digital : une étude de cas dans les communautés de pratique transformatrices** Diane Janes, Thompson Rivers University; and James Beres, Southern Alberta Institute of Technology

Track: Partnering with Faculty and administration/ Volet: Partenariat avec le corps professoral et l'administration  
 Type: Case study in innovation

**Name of the case:** Digital Learning Exchange: A Case Study in Transformative Communities of Practice  
**Focus of the case:** Other - Digital Communities of Practice as a way to mitigate Faculty support in a global pandemic

### **Background**

In March 2020, the world became drastically different due to the arrival of a global pandemic called COVID-19. Educational and other institutions found themselves pivoting to remote operations, quarantine, and technology-enabled strategies for work, everyday living, and learning

### **Problem addressed by the case**

Faculty, staff and leaders needed support to make this transition and fast.

### **Solution devised**

The actions taken by one polytechnic in Western Canada worked to ensure the techno-resiliency (Fox, 2004; Graham, 2016; Janes & Carter, 2020; Weller & Anderson, 2013) of its instructors through innovative use of a community of practice model (Wenger, 1998) and a digital learning exchange was created - it has proven to be effective in empowering post-secondary educators master this difficult transition.

### **Process for developing the solution**

SAIT's Centre for Academic Development and Innovation (CADI) implemented the Digital Learning Exchange for Faculty and Staff (DLE) using MS Teams. Constructed around a Community of Practice (CoP) model, the DLE (or DigEx) enabled instructors with remote teaching experience to support other teachers through highly relevant mentoring. As the new-to-online (and experienced) instructors acquired new knowledge and strategies, they assisted others.

The MS Teams space was dedicated to exploring digital learning generally while channels (or discussion spaces) were used for specific topics and purposes. As the DLE evolved, further channels were created, and video chats and asynchronous discussions occurred involving novice and expert online teachers. The use of the DLE was shared via email, newsletters and 'word of mouth' to encourage membership across the campus.

## **Supporting Self-Regulated Learning in Hybrid Environment to Mitigate Impact of the COVID-19 Pandemic: An Autoethnography**

Lukas Liu, Columbia University

Track: Evidence-based practices in teaching/ Volet: Pratiques de l'enseignement fondées sur des preuves

Type: Research presentation

### **Rationale for the study:**

As we are moving into the recovery and mitigation phases of the disaster management cycle (Alexander, 2002), universities have implemented numerous strategies to support students' learning and accommodate various needs (Dennen et al., 2022). Although learning remotely is no longer a mandate, the remote option has been available to students if necessary (Ali, 2020). However, this hybrid learning is a fait accompli because the instructors need to provide accommodations to students per institutional policy, which proposes challenges to teaching and learning in this "post-Pandemic" world. This autoethnography aims at reviewing and evaluating the strategies and instructional design decisions made to support students' self-regulated learning in such hybrid environments from a reflective perspective. The findings should shed light on designing and managing a hybrid learning environment to support students' self-initiated, self-regulated, and self-sustained learning experiences.

### **Research questions:**

- What were the challenges of self-regulated learning in a hybrid environment?
- How were the challenges addressed to support self-regulated learning in a hybrid environment?

### **Methodology:**

First, this study is an autoethnography study that aims at leveraging the researcher as a reflective tool on the personal narrative and lived experience (Mallet, 2011). In this study, I describe my teaching a graduate-level introductory course on learning analytics (i.e., auto-), my approach to facilitate the self-regulated learning community (i.e., enthno-), and my reflections and evaluations of the effectiveness (i.e., -graphy). In addition, this study draws on the rich literature of self-regulated learning (cf., Zimmerman & Schunk, 1989, Pintrich, 1995, Boekaerts, 1999) to systematically analyze the challenges in a hybrid learning environment.

### **References:**

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- Pintrich, P. R. (1995). Understanding self-regulated learning. *New directions for teaching and learning*, 1995(63), 3-12.

Zimmerman, B. J., & Schunk, D. H. (1989). Self-regulated learning and academic achievement: Theory, research and practice. Springer.

### Presentation Topic: Emerging Technology

#### ***Delivering experiential education via AI-powered simulation: Addressing pedagogical, usability, and implementation issues***

Glen Farrelly, Athabasca University

Track: Institutional technology/ Volet: La technologie institutionnelle

Type: Innovative teaching, technology or design technique

**Name of the innovation:** AI-Powered Online Educational Simulations

**Type of innovation:** Technology

**How the innovation works:**

Simulation software powered by artificial intelligence (AI) can be used to make it viable to deliver online, interactive, experiential learning experiences that scale well to large student numbers as well as offer student flexibility in terms of timing of their lessons.

**How to apply the technique:**

The simulation software with embedded learning resources can be used comprehensively replace a traditional course approach with lectures, textbook and course discussion for online-only courses or it can be used to offer participative elements such as hands-on exercises and interactions based on course material and planned learning outcomes. Once it is determined to what extent one wants to use the technique for their course delivery, one must determine how to structure the use of the technology. One approach involves structuring the interactions so as to facilitate more instructor involvement and overseeing of the students' simulation interactions, while another approach involves a more streamlined approach with less opportunity for instructor intervention.

#### **Case Study] Integrating Virtual Reality in Higher Education: The Faubourg à m'lasse** **[Étude de cas] Intégrer la réalité virtuelle dans l'enseignement supérieur : Le Faubourg à m'lasse**

Antonia Tripa and Ping Ng, KnowledgeOne

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: Case study in innovation

**Name of the case:** [Case Study] Integrating Virtual Reality in Higher Education: The Faubourg à m'lasse

**Focus of the case:** Technology

**Background:**

Via VR technology, the online Concordia course SOCI 280 – Debates & Challenges in contemporary Quebec Society, brings the story of the Faubourg à m'lasse to life for an exploration of its residents of the past, who in the 1960s had to be displaced. On the order of the City of Montreal, this entire neighborhood was demolished to be replaced by a modern new urban mega-project. Today, the Maison Radio-Canada stands in that area.

**Problem addressed by the case:**

The team at eConcordia had to bring to life material from the past, as the Faubourg was demolished in 1963. The students could not visit the district today in order to relive its history.

**Solution devised:**

Virtual Reality's ability to fully immerse gave us an answer: we could, literally, bring the students back to the Faubourg in Virtual Reality.

**Process for developing the solution:**

Fortunately for the team, before its demolition, the Faubourg had been meticulously documented with photographs, film footage, testimonies and audio recordings. Using this trove of archival material as a reference and consulting records from the CBC/Radio-Canada and Bibliothèque et Archives nationales du Québec (BAnQ), the team reconstructed a historically authentic Faubourg apartment of the 1960s virtually in a game engine.

**Let's try this again.": Deliberate Practice in Teacher Education using Virtual Reality Scenarios**

Teresa Hernandez-Gonzalez and Remi Arora, Concordia University

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: Innovative teaching, technology or design technique

**Name of the innovation:** VR tool for teacher education

**Type of innovation:** Teaching

**How the innovation works:**

Leveraging the benefits of Virtual Reality in terms providing immersive, reiterative processes that can lead to develop of mastery in low-risk environments.

See further explanation in the abstract: <https://www.dropbox.com/s/pwsiajxukvgy3n2/Abstract.pdf?dl=0>

**How to apply the technique:**

Currently in the design phase we are developing our set of Best Practices for its implementation. The pre-service teachers in a teacher education program will practice with the VR headset and "live" the experience. In a "choose your own adventure" frame, they will be able to test their hypothesis and see the consequences of each. Reflective discussions afterwards will highlight patterns and make the aware of the characteristics of the most "appropriate" options in each scenario.

**Innovative Topic Discussion**

**Becoming a Champion**

Jamie Noakes, Thompson Rivers University

Track: Partnering with Faculty and administration/ Volet: Partenariat avec le corps professoral et l'administration

Type: One-hour Innovative Topic Discussion

Changing work environments and "the great resignation" have created an increase in hiring and greater need to access new and emerging talent with PSI's. Organizations and employers often experience

difficulties when connecting with the right person at PSI's. Additionally, employers are often unaware of the wide range of experiential learning opportunities available for students to support the local community. At Thompson Rivers University (TRU), we used a unique approach to develop a comprehensive list of campus contacts and Experiential Learning options that we could quickly share with the local company. Join us to learn more about the strategies we utilized to approach this problem and how we mobilized quickly to bring together staff, faculty and administration for collaboration.

Learning objectives:

- Understand new employer frustrations when trying to connect with PSI's for a wide range of Experiential Learning options.
- Learn about strategies TRU utilized to create solutions to these concerns
- Develop your own plan for approaching this situation at your own PSI through discussions with other participants.
- Create an implementation plan for your PSI, complete with an action item list.

**Mardi 3 mai / Tuesday, May 3**  
**2:15 pm – 3:15 pm**

### **Presentation Topic: Emerging Technology**

#### **An augmented reality (AR) application design for teaching and learning K-12 mathematics concepts**

Hunhui Na, Florida State University and Ji Yae Bong, Concordia University

Track: Institutional technology/ Volet: La technologie institutionnelle

Type: Innovative teaching, technology or design technique:

#### **Name of the innovation:**

An augmented reality (AR) application design for teaching and learning K-12 mathematics concepts

#### **Type of innovation: Design**

#### **How the innovation works:**

STEM augmented reality applications have received a tremendous amount of attention as a potential tool to cultivate K-12 students' STEM-related competencies in the last decade (Bacca et al., 2014; Ibáñez & Delgado-Kloos, 2018). However, the acceptance of AR applications for teaching and learning STEM contents remain low in practice. Some challenges that hinder using AR applications include the high cost, teachers' burdens to facilitate learning activities using AR applications, and the lack of easy-to-use AR applications; students' not-readiness of using AR tools (Cai et al., 2017; Chang et al., 2016; Laine et al., 2016). Only well-designed AR applications can enhance teachers and students' acceptance and successfully facilitate real understanding of difficult STEM concepts. This practical proposal describes the initial design and development phase of a mobile AR application, especially focusing on three types of learning supports: AR app-related, cognitive, and affective supports.

#### **How to apply the technique:**

3D Shape in AR, the mobile AR application, has been designed as a teaching and learning tool for K-12 students' understanding of three dimensional geometric shapes and related mathematical concepts. To maximize the pedagogical potentials of the mobile AR application in K-12 classroom context, two different modes of AR, marker-based and plane-detection AR, were implemented. Teachers can use either or both different AR modes based on students' technological readiness.



Three types of learning support were embedded in our initial design: (a) AR app-related supports help students technically use diverse functions of the application. This type of support includes the direct guidance on how to use each function (e.g., choosing the different colors and types of 3D shapes, printing origamis) and how to solve game levels with icons and messages. (b) Cognitive supports help students actively engage in their learning by processing information from augmented sources, visual cues, cognitive activities, hands-on missions; having multiple attempts to fail and recover; and experimenting freely though gameplay. (c) Affective supports help students experience positive emotions while learning using the AR application. The affective supportive features include gamified contents, sharing their works using QR-codes with their friends.

**Capturing Reality: Using Photogrammetry in Education**  
**Capter la réalité: l'utilisation de la photogrammétrie en éducation**  
 Ping Ng and Daniel Dorion, KnowledgeOne

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage  
 Type: Case study in innovation

**Name of the case:** Immortalizing Landmarks: the Wing's Factory in Montreal's Chinatown

**Focus of the case:** Technology

**Background:**

In 2021, activists in Montreal's Chinatown sounded the alarm about real estate developers purchasing a large amount of land within the historic neighborhood. There were concerns that the developers could significantly alter the landmarks of the area. One of these landmarks is the Wing's Noodle Factory building, built in 1826.

**Problem addressed by the case:**

There is a risk that the building could be demolished or significantly altered by its new owners. This could potentially mean losing access to this 200 year old piece of Montreal history.

**Solution devised:**

Photogrammetry allows us to capture physical objects and spaces with photorealistic qualities and create virtual copies at reasonable costs in money and in time.

The eConcordia team went on site in late 2021 and scanned the exterior of the Wing's building using photogrammetry techniques.

**Process for developing the solution:**

We had given ourselves a set of objectives:

- If possible, the content needed to be as immersive as possible, given that the landmark could disappear
- It needed to be realistic, to retain as much of the information as possible, in the rawest form possible
- The resulting output must be versatile: the information we extract must be easily usable and reusable
- It must not be cost or time prohibitive: it cannot take a very long time, or cost a lot to do.

**Innovative Topic Discussion**

**OERs and Indigenous course development: Another form of colonial exploitation?**  
**Les REL et le développement de cours autochtones : une autre forme d'exploitation coloniale ?**



Joanne Etmanski Astorga, GEVC Inc;  
And Laura Arndt, Centennial College (on secondment)/ Six Nations of the Grand; and  
River Joanne Etmanski Astorga, GEVC Inc.

Track: Learning architecture/ Volet: L'architecture de l'apprentissage  
Type: One-hour Innovative Topic Discussion

Through the examination of a recent Open Educational Resource (OER) initiative to develop three courses specific to Indigenous peoples and knowledges, this session invites discussion of questions related to Indigenous curriculum development in post-secondary settings, including the tensions of ownership, controlled access, and possession of copyright and licensing standards as they apply to Indigenous content development.

Learning objectives:

- See: Review Indigenous quality assurance standards for post-secondary educational activities
- Relate: Contrast OER processes, funding terms and conditions, and intellectual property waivers with the Truth and Reconciliation Commission's Calls to Action for Education
- Understand: Evaluate the appropriateness and ramifications of OERs for post-secondary Indigenous course development and Indigenous knowledge holders
- Act: Formulate suggestions for improvements to post-secondary course development processes to include, honour, respect and fairly compensate Indigenous knowledge holders who partner with post-secondary settings to create Indigenous-centred OERs

### **What Is Learning Experience Design (And Does Adopting It Require You to Leave ADDIE and SAM Behind?)**

Saul Carliner, Concordia University

Volet: Conception des expériences d'apprentissage / Track: Learning experience design  
Type: One-hour Innovative Topic Discussion

Over the past few years, the term "learning experience design" has crept into the instructional design lexicon. But what is it really? This session provides an overview. Specifically, taking a design-sprint approach, this session engages participants in performing some of the essential practices of learning experience design, including the development of use cases and personas, learning journeys, and prototyping; explains the benefits of these practices; explores the benefits of learning experience design to the overall effectiveness of instructional programs; and suggests how these practices integrate into existing instructional design processes.

More about the Topic (for reviewers, not the published program): Although the concept of instructional design has guided the design and development of educational programs since the middle of the last century, a new concept, learning experience design, has emerged as a possible alternative. This experiential session provides participants with an opportunity to experience and contrast the two, and suggests the implications to research, theory, and practice of the two approaches.

Instructional design emerged from work that began during World War II. Throughout the war, US defense forces introduced increasingly complex technology into the battlefield, technology that required special training. Cognitive psychologists were engaged to find ways to design effective instructional programs that could be launched as quickly as possible and that would be effective, so US forces might benefit from this technology as quickly as possible (Reiser, 2001).

The resulting approach, eventually called instructional design, is effectively comprised of these main components:

- Instructional design theories, which offer “explicit guidance on how to better help people learn and develop” (Reigeluth, 1999, p.5.)
- Instructional-design, which refers to strategies for structuring educational materials to ensure that they most effectively teach the intended material. The choices should be rooted in empirical research on effective instructional techniques (Reigeluth, 1999).
- Instructional systems design, a process that professionals should follow to prepare instructional programs and that, in its most generic form, consists of five broad tasks: analyzing a need, designing a program, developing a program that conforms to the designs, implementing the program, and evaluating the effectiveness of the program. This generic process is known as ADDIE, a acronym created from Analysis, Design, Development, Implementation, and Evaluation, though no one knows the true origins of ADDIE (Molenda, 2003). The goal of the process-oriented approach is to ensure that professionals ask key questions before making important decisions regarding the educational programs.

Instructional design emerged from research and academia; several concerns with instructional design exist such as the inflexibility of its process and it is more focused on analysis and evaluation than on the actual design and development of programs.

In response practicing professionals responded with their own concept: learning experience design. According to the Online Learning Consortium, a nonprofit organization that offers a digital badge in learning experience design, learning experience design “utilizes well-established user experience (UX) design, service design, and design thinking methods to focus the design of synchronous and asynchronous learning experiences on those who matter most: the learners” (2019). Niels Floor, a Dutch user experience designer, claims credit for coining the term and now runs a consultancy that offers learning experience design master classes and conferences. As currently conceived by people with user experience backgrounds, learning experience design is a relatively new concept rooted in principles of user experience. For example, a Learning Designer Manifesto calls designers of online learning experiences to “transform learning into a more personal and profound experience” (Learning Experience Design, 2019). The manifesto invites learners to tell designers “what drives you so I can truly meaningful learning experiences that have a powerful, positive impact.”

Since the training of that manifesto, formally trained instructional designers have tried to link learning experience design to instructional design through an open access book on learning experience design (Schmidt, Tawfik, Jahnke, & Earnshaw, 2020).

### **Learning Objectives:**

- Contrast learning experience design with traditional instructional design.
- Use these experience design techniques: personas, use cases, and user orientation.
- State how you can incorporate these techniques into your own instructional design practice.

**Mardi 3 mai / Tuesday, May 3**  
**3:30 – 4:30 pm**

### **Birds-of-a-Feather Sessions**

Birds-of-a-Feather sessions are a type of networking session. Participants choose one of work-related topics. A facilitator for the group ensures that the conversation stays on track.

The session is structured like this:

1. All participants join the same virtual meeting room.
2. The facilitators provide a one-minute (timed) promo for their sessions.

3. You choose the session of interest
4. You are then invited to join a Pause / Breakout room associated with that topic.  
**Note:** It will take a few moments to assign people. Your patience is appreciated as we try to ensure that each person is assigned to the breakout room of their choice.
5. You'll have about 40 to 45 minutes for your birds-of-a-feather presentation. These are intended to be interactive discussions; the leaders are facilitators not speakers.
  - a. At the beginning of the discussion, the facilitator appoints one person to serve as "reporter" for your group. Their job will be to summarize the discussion that occurs during the session for everyone.
  - b. You will receive warnings that the session is about to end.
  - c. As the session comes to a close, your facilitator might ask if you are interested in continuing the discussion.
6. Everyone rejoins the main "room."
7. The reporter for each group will have one minute to share what they learned with the rest of the participants in the entire session.
8. The overall facilitator invites closing thoughts.

## Jour trois / Day Three Mercredi 4 mai / Wednesday, May 4

**Remarque:** toutes les heures de l'Est. Lorsque vous ajoutez ces sessions à votre calendrier, veuillez prendre en compte le fuseau horaire.

**Note:** All times Eastern. When adding these sessions to your calendar, please take the time zone into consideration.

### Day at a Glance

9:30 – 10:00	<b>Early Morning Networking</b>  <b>Topic: Higher Education and Professional Development</b>  <b>Volet: Pratiques de l'enseignement fondées sur des preuves / Track: Evidence-based practices in teaching</b>  Research presentation: <i>ePortfolios for authentic assessment: What are the professional development/learning needs?</i> Debra Hoven, Pamela Walsh, Rita Zuba Prokopetz, and Rima Al Tawil, Athabasca University  <b>Volet: L'architecture de l'apprentissage / Track: Learning architecture</b>  Case study in innovation: <i>Launching a Graduate Certificate in Teaching and Learning</i> Saul Carliner, Concordia University  <b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Innovative teaching, technology or design technique: <i>Creating a learning experience that mirrors the real-world</i> Todd Rich, York University	<b>Topic: Accessibility</b>  <b>Volet: La technologie institutionnelle / Track: Institutional technology</b>  Innovative teaching, technology or design technique: <i>Make friends with technologies to enable access to anti-doping education opportunities</i> Hongyang Gracie Li and Soledad Silvera, World Anti-Doping Agency (WADA)  <b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Case study in innovation: <i>Accessibility in an online communications course</i> Carol Sparkes and Carolyn Teare, Thompson Rivers University	<b>Volet: La technologie institutionnelle / Track: Institutional technology</b>  Hands-on workshop: (23) <i>Developing Augmented Reality Experiences for Natural and Cultural History Education</i> Erica Hargreave, Ahimsa Media / StoryToGo / BCIT
10:00 – 11:00			
11:15 – 12:15	<b>Topic: Teaching Strategies</b>  <b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Case study in innovation: <i>Read-Me First! Guides: A Starting Point for Lessons</i> Saul Carliner, Concordia University  Innovative teaching, technology or design technique: <i>Everything Old is New Again!</i> Helena Prins and Leva Lee, BCcampus  <b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Innovative teaching, technology or design technique: <i>The Passion Pedagogy: Unleashing Your Students' Passion with Real-World Projects</i> Avery Rueb, Vanier College and Michael Canuel, Learn Quebec	<b>Topic: Open pedagogy and OER</b>  <b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Innovative teaching, technology or design technique: <i>An approach of OER-enabled pedagogy: Designing a professional development OER about OER as part of a graduate level course experience</i> Ji Yae Bong, Rachel Harris, Samira Karim, Yuan Chen, Gabrielle Adam, Celine Reyes, and Alexandra Maria Almonte, Concordia University  <b>Volet: Pratiques de l'enseignement fondées sur des preuves / Track: Evidence-based practices in teaching</b>  Innovative teaching, technology or design technique: <i>Co-Creation in Course Design: Liberating Critical Consciousness Through Integrating</i>	<b>Volet: Conception des expériences d'apprentissage / Track: Learning experience design</b>  Innovative Topic: <b>LX and Accessibility - Beyond Compliance</b> Adriana Lopez Forero, William Fritzberg, and Sebastian Hanlon, Onlea

		<i>Open-Access Simulations, Online Modules, and International Partnerships</i> Laura Killam, Queen's University Marian Luctkar-Flude and Jane Tyerman University of Ottawa  <b>Volet: Partenariat avec le corps professoral et l'administration / Track: Partnering with Faculty and administration</b>  Innovative teaching, technology or design technique: <i>Team-based Approach for Development of Quality Online SFM Courses with OER Content through International Collaboration</i> Guangyu Wang, Michelle Zeng, Anil Shrestha, Chris Crowley, Hailan Chen, and Na Zhong, The University of British Columbia	
12:15 – 12:45	Pause / Break		
12:45 – 1:45	<b>Assemblée générale du Réseau canadien pour l'innovation en éducation / Annual General Meeting for the Canadian Network for Innovation in Education</b>		
2:00 – 3:10	<b>Closing Keynote: Challenges and Opportunities for OER and OEP in the Next Decade</b> David Wiley, Lumen Learning and Association for Educational Communications and Technology		
3:10 – 3:50	<b>Meeting for the Canadian Network for Innovation in Education</b>		

**Mercredi 4 mai / Wednesday, May 4**  
**10:00 – 11:00 am**

**Presentation Topic: Higher Education and Professional Development**

***ePortfolios for authentic assessment: What are the professional development/learning needs?***

Debra Hoven, Pamela Walsh, Rita Zuba Prokopetz, and Rima Al Tawil, Athabasca University

Track: Evidence-based practices in teaching/ Volet: Pratiques de l'enseignement fondées sur des preuves

Type: Research presentation

**Rationale for the study:**

Eportfolios have been offered at educational institutions at various levels around the globe since the technology began being used in education (Danielson & Abrutyn, 1997; Hoven, 2020). Within the last fifteen years, eportfolio practice, as a form of authentic assessment, has been evolving, yet there are gaps in the literature about the nature and role of faculty development relating to eportfolio pedagogy and roles and good practices in higher education. Higher education institutions seem to recognize the importance of reflective practice inherent in eportfolios; however, it is unclear how faculty apply the process of reflection in their own teaching (Giaino-Ballard & Hyatt, 2012; Hoven et al. 2021).

Eynon and Gambino (2016) and the European report of Scully, O'Leary and Brown (2018) argued that if done well, eportfolio-based professional development has the potential to support transformative student learning across the institution but that professional development is a critical component in reflective eportfolio pedagogy.

**Research questions:**

1) What professional development activities are available for university faculty for ePortfolio practice in courses and projects across a selection of Canadian universities; how were these activities chosen and developed; what activities are perceived to be effective; what lessons have been learned from PD opportunities;

2) What skills or characteristics are deemed to be important for faculty effectiveness in ePortfolio activities? What recommendations are offered or proposed?

### **Methodology:**

Following institutional research ethics approval and funding, this exploratory interpretive research study enabled the research team to gain insights into the experiences of 11 instructors involved in ePortfolio activities in the nine Canadian universities identified as using ePortfolios. Our study relied on audio-video interviews with faculty, educational technologists, and instructional designers at the universities identified through an initial web search. Interviews were recorded, transcribed, and member-checking undertaken. We then analyzed the data, manually and using NVivo software.

### **References:**

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- Hoven, D., Walsh, P., Al Tawil, R., & Zuba Prokopetz, R. (2021). Exploring professional needs and strategies for instructors/faculty facilitating eportfolios online. *Irish Journal of Technology Enhanced Learning* 6 (1): 154-176. <https://journal.ilta.ie/index.php/telji/issue/view/12>
- Scully, D., O'Leary, M. & Brown, M. (2018). *The learning portfolio in Higher Education: A game of snakes and ladders*. Dublin: Dublin City University, Centre for Assessment Research, Policy & Practice in Education (CARPE) and National Institute for Digital Learning (NIDL).

### **Launching a Graduate Certificate in Teaching and Learning**

Saul Carliner, Concordia University

Track: Learning architecture/ Volet: L'architecture de l'apprentissage

Type: Case study in innovation

**Name of the case:** Launching a Graduate Certificate in Teaching and Learning

**Focus of the case:** Design

#### **Background:**

To better prepare its PhD students for the academic job market, Concordia University launched a Graduate Certificate in University Teaching. Students took three tutorials (independent study courses) that had limited focus and then would have an "internship." The program was limited to doctoral candidates (which significantly limited the pool) who had a guarantee to teach a reserved course (the limited number of courses that are set aside for doctoral students to teach, using a formula agreed upon with our part-time union). Not surprisingly, the program was not sustainable. So the decision was made to revamp the program significantly so it would be open to more students and could be sustained over time.

**Problem addressed by the case:**

The initial idea was to expand the focus beyond university teaching to include colleges and Cegeps (a unique college-like institution in Quebec that incorporates the last year of high school and the first year of university, as well as diploma programs in professional and trade areas). Informal conversations with teaching and learning staff suggested that instructors would be interested and institutions already worked with other universities on similar degrees. Informal conversations with continuing education staff suggested that they, too, might be interested. So we surveyed all three audiences and learned that interest did, indeed exist. They told us that the program would need to take into consideration the full-time working status of college and continuing education instructors, and student status of others. At the same time, Concordia's School of Graduate Studies had an interest in developing micro-credentials: programs with as few as three courses.

**Solution devised:**

Graduate Certificate in Teaching in Higher and Continuing Education (C-TEACH). This program consists of a three-course micro-credential that provides foundations of learning (including basic learning theory, student-centered learning, and scholarship of teaching and learning), designing courses (which walks students through the process of designing a course syllabus and developing detailed designs for two lessons), and facilitating courses (which prepares instructors for their roles as facilitators, to teach lessons, handle challenging situations in the classroom, and facilitate related situations). Students can then choose to complete the microcredential or continue on for the entire certificate, which involves teaching a higher or continuing education course with at least 35 contact hours and linking that experience to the courses taken in this program. The program is intended for entirely online delivery, primarily blending the live virtual classroom with self-study materials.

### **Creating a learning experience that mirrors the real-world**

Todd Rich, York University

Track: Learning experience design / Volet: Conception des expériences d'apprentissage

Type: Innovative teaching, technology or design technique

**Name of the innovation:**

I thought this background info might help frame the proposal. Our Certificate in Learning Experience Design, launched in 2021, is a 3-course, part-time program for those who are seeking to enter roles such as Learning Experience Designer, Instructional Designer, Learning and Development Specialist, Facilitator or Adult Educator. The Program takes 6 months to complete and includes an integrated project where students build a 30-60 minute training module for a real client (onboarding staff, training staff, etc). Projects are sourced through Riipen. The certificate is cohort based – one purchase and students complete all three courses as a group. 26 students registered in the first cohort.

The hallmark of the innovation was creating a learning environment that mirrors the real-world and that allows students to learn by doing.

- The first and perhaps the most significant innovation was to think about the process a LXD designer goes through to build a training module by identifying the milestones a practitioner would complete



on the job (needs analysis, personas, curating content, prototyping, testing, etc) and then map them with a real-work project. Most milestones became graded assignments.

- To facilitate the learning in real-time, we moved the “capstone” project to the beginning of course one and threaded it through each course in the program. This project then became a through-line of learning ensuring that students are gaining skills and techniques that directly support the type of work they will be doing on the job.
- In addition to the innovative and integrated learning design of the course, we also created “learning pods” to address students’ dislike of group work and their need to manage their time effectively as working professionals but still collaborate with peers.

**Type of innovation:** Design

**How the innovation works:**

Note: this works best in a year-long course or multi-course certificate that has the same cohort of students.

- The Program Advisory Council helped us identify the key LXD milestones and overlayed those with the project. For example, in the milestone to build a Persona, students learn about the topic and then complete a Persona Activity by speaking to several end-users from the partner organization.
- Milestones were mapped to the program-spanning project to determine how the courses will be laid out and what content needs to be taught each step of the way. We also considered the effort and time needed to complete each milestone to decide the duration of each course (8 weeks, 6 weeks, 10 weeks).
- A visual journey map was created to shows the pathway for students
- Students were assigned to Learning Pods (4-5 people) based on similar projects, interests, career pathways, etc.

### **Presentation Topic: Accessibility**

**Make friends with technologies to enable access to anti-doping education opportunities**  
**Faire amie avec la technologie avec les technologies pour permettre l'accès aux opportunités d'éducation anti-dopage**

Hongyang Gracie Li and Soledad Silvera, World Anti-Doping Agency (WADA)

Track: Institutional technology/ Volet: La technologie institutionnelle

Type: Innovative teaching, technology or design technique

**Name of the innovation:**

As the global regulator (WADA) for anti-doping, we have made education a priority for athletes and athletes support personnel a priority. We would like to increase the reach of our education solutions to the global audience, despite the ongoing pandemic restrictions. To solve this issue, we would need an LMS platform that is easy, intuitive to use for the global audience. More importantly we were looking for solutions to help us speed up the course content translation process. The logic is simple, if we are able to make the same education program in as many languages as possible, then we are increasing the equal access to education in less developed countries. A 3rd issue we would like to address to respond to our learners request in a more professional way to monitor the frequently asked questions and improve our service level to the anti-doping community regarding education.

**Type of innovation:** Technology

**How the innovation works:**

The LMS is the easiest among the 3 challenges to solve. With a lot of experiments and trial and errors, we decided to use Articulate Rise for content development and then a machine translation tool for content translation. Finally, we found a customer support system to manage our users requests about how to use our LMS systems.

**Accessibility in an online communications course**

Carol Sparkes and Carolyn Teare, Thompson Rivers University

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: Case study in innovation:

**Name of the case:** Accessibility in an online communications course

**Focus of the case:** Design

**Background**

CMNS 1811: Professional and Academic Communication is credit course offered through Open Learning at Thompson Rivers University. It is delivered in an asynchronous format and a student has 30 weeks to complete it. The assessments are built around a case study on The City of Beautiful. With so many courses moving online due to COVID it is important to share ways to make to design an online courses to be accessible.

**Problem addressed by the case:**

The problem addressed is the accessibility issues remaining after document accessibility checkers, from Word for example, are used. Focus is on supporting those using screen readers.

**Solution devised:**

Unique solutions for each scenario.

**Process for developing the solution:**

We analyzed each situation as it presented itself. Creating tools such as OneStep.trubox.ca to help guide ourselves and share the approach with others.

**Hands-on Workshop**

**Developing Augmented Reality Experiences for Natural and Cultural History Education**

**Développer des expériences de réalité augmentée pour l'enseignement de l'histoire naturelle et culturelle**

Erica Hargreave, Ahimsa Media / StoryToGo / BCIT

Track: Institutional technology/ Volet: La technologie institutionnelle

Type: One-hour hands-on workshop

With the ever increasing experiences that immersive media hold for students in allowing them to enter new worlds, travel back in time, visit the other side of the planet, explore the inner workings of our body, and more, the possibilities are exciting, especially if you can get students themselves creating immersive experiences. Many students (and educators) will have already done so with virtual reality, but fewer with augment reality. That's what we'll be exploring in this workshop.

Augmented reality (AR) is an interactive experience where our real, physical world is digitally augmented. The augmentation is usually visual in current applications, though it can also be through

other senses, such as auditory or haptic. There are three basic features of AR: a combination of real and virtual worlds, real-time interaction, and accurate 3D registration of virtual and real objects.

Having explored the challenges and solutions for both experiencing and creating AR for the Story Steppers AR experiences for natural and cultural history education, we are sharing what we've discovered with other educators. Our aim being to make augmented reality more accessible and less daunting to other educators by sharing ways that AR can both be used and created in the classroom.

**Learning objectives:** In this workshop, we aim to:

- define augmented reality
- differentiate augmented reality from virtual reality and mixed reality
- participate in different augmented reality experiences
- identify different challenges with utilizing AR with students
- brainstorm solutions to utilizing AR with students
- explore different ways of creating AR experiences for / or with your students
- experiment with designing a simple AR experience

**Mercredi 4 mai / Wednesday, May 4**  
**11:15 am – 12:15 pm**

**Presentation Topic: Teaching Strategies**

**Read-Me First! Guides: A Starting Point for Lessons**  
Saul Carliner, Concordia University

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: Case study in innovation:

**Name of the case:** Read-Me First! Guides: A Starting Point for Lessons

**Focus of the case:** Design

**Background:**

When designing an asynchronous online graduate course on mediated communication, the instructor searched for a means of guiding students through the materials, which would be distributed on through a course management system. The resulting choice turned out to be more versatile and would prove helpful in a variety of academic situations.

**Problem addressed by the case:**

Many asynchronous online courses in universities consist of a collection of resources, such as readings, videos, activities, and assessments. But the relationship among these resources is not always self-evident so providing an explanation benefits the learning process. This contrasts with asynchronous online courses for training, which are usually self-contained as they usually do not involve pre-work (homework) and any assessment or testing can be included in the course package.

Furthermore, for efficiency, most traditional academic courses consist of pre-class readings and problem sets, with in-class lectures usually spent in transmitting content (often duplicating or amplifying the content in the readings) and leaving little if any time to work on problems, much less verify that students mastered the skills and knowledge, much less the individual components of that knowledge and skills. For example, failing to master point A but moving onto points B and C anyway could result

in the student failing to master all three points). By moving online, the activities, readings, and lectures could be packaged in smaller chunks, providing opportunities to practice and validate that students have mastered point A before they move onto point B, because the lessons no longer had to be taught as a single three-hour (or similar) lecture.

#### **Solution devised:**

The Read-Me-First! Guide, which explains the rationale underlying the lesson and then serves as a concierge through the instruction. The concept is borrowed from a webquest, which is an activity that sends students to various resources on the web to achieve particular learning goals.

The name comes from the Read-Me-First! materials provided with new releases of software and whose title clearly signals what's first when faced with a large number of files to read. Major sections of the Read-Me-First! Guide include:

- About the lesson
- Objectives covered
- Highlights (so students have a quick overview of the activities in the lesson)
- Sequences of activities, readings, and applications of skills of readings (through activities like discussion board posts, and self-assessments).

Each guide has several such sequence, each addressing a different component skill related to the main objective of the lesson. For example, a lesson for an instructional design course focusing on needs assessment would have separate sequences for each major section of the needs assessment, such as defining the tasks, describing the learners, and identifying characteristic in the environment affecting learning. Students would master one of these components before moving to the next.

Each Read-Me-First guide concludes by asking students to reflect on their learning by taking self-assessments and posting on discussion boards. When guiding students through readings, Read-Me-First guides provide students with guiding questions to help them focus on the key learning points as they pertain to the objectives of the lesson.

Read-Me-First guides also include resources developed by the instructor for that lesson, including forms and templates. Readings, however, are usually distributed separately. When materials are posted on a course management system, their description matches the sequence number and terminology in the description of the Read-Me-First! guides, which helps students find the materials more easily.

Although originally developed for an asynchronous online graduate course, the concept has also been applied in a large asynchronous undergraduate course, face-to-face undergraduate courses, flipped graduate courses, and blended continuing education courses.

**Everything Old is New Again!**  
**Tout ce qui est ancien est à nouveau nouveau**  
 Helena Prins and Leva Lee, BCcampus

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: Innovative teaching, technology or design technique:

#### **Name of the innovation:**

Lunchable Learning: a radio show for professional development for the BC post-secondary sector

**Type of innovation:** Teaching, Technology and Design

**How the innovation works:**

Lunchable Learning uses an “old” and familiar technology, radio, in a new way to deliver professional development using an open platform (web radio and blog site). Our website: <https://lunchablelearning.opened.ca/> Our open, free-form and live streaming service: Ds106 Radio <https://listen.ds106rad.io/> The pandemic shift and screen fatigue brought our attention to the importance of designing professional development in small digestible chunks for the post-secondary education sector. “Lunchable Learning” offers an easy way to acquire learning and connect with our listeners/learners, informally, via quick tips, highlights and conversation starters and aims to amplify and voices and diverse perspectives in B.C. post-secondary education. The goal of “Lunchable Learning” is to provide post-secondary educators with professional learning in a new and fun format that explores and models digital literacy and a curious, experimental mindset. The radio show aims to: Raise awareness of current hot topics in B.C. post-secondary education Feature guest interviews with individuals from the post-secondary sector Highlight tools and tips for teaching and group facilitation Encourage experiments with teaching and learning strategies through challenge activities Provide resources on show topics for listeners to read and explore further

**How to apply the technique:**

Technology Ds106 Radio platform (web stream), The OpenETC (blog site) Team One Tech Producer – record the shows and monitor audio levels etc using software Audio Hack and Loopback software and some post-production work Two Radio Show hosts – design program, invite guests, create show content and host Post-production work- Write program show notes for the web blog weekly, prepare recording for sharing on the web blog (including captioning)

**The Passion Pedagogy: Unleashing Your Students’ Passion with Real-World Projects**  
**La pédagogie de la passion : déclencher la passion de vos étudiants avec des projets de la vraie vie**  
 Avery Rueb, Vanier College and Michael Canuel, Learn Quebec

Track: Learning experience design: Volet: Conception des expériences d'apprentissage

Type: Innovative teaching, technology or design technique

**Name of the innovation:** The Passion Pedagogy

**Type of innovation:** Design

**How the innovation works:**

The Passion Pedagogy is a project-based approach to learning where students pick any project they are passionate about and they run for a grade. It is gaining popularity all over the world in activities like the Genius Hour and in schools like the online Sora School (<https://www.youtube.com/watch?v=TKd2zlqjXSQ>).

**How to apply the technique:**

Last winter term, Avery Rueb (Vanier College) created the course, “Running Your Own Passion Projects”. Here ([https://www.youtube.com/watch?v=dIau\\_2Y\\_-E4&t=1s](https://www.youtube.com/watch?v=dIau_2Y_-E4&t=1s)) is the video introduction. The feedback was overwhelmingly positive with one student saying, “I like this course because we get to follow our dreams and it’s a lot easier.”

**Results from applications of the innovation:**

The main benefits are an increased intrinsic motivation for students through agency. The final passion projects are also effective ways for students to show off their “amazing-ness” in university applications and job interviews. In our presentation, we will show examples of students' final presentations as well as portfolios that students can use after the class.

The goal of this presentation is to inspire teachers to try out the Passion Pedagogy to create an inclusive environment for learning where students have more choice in their work as well as how their work is assessed. In terms of take-aways, participants will learn to write curriculum for small and big projects where students select and direct their own learning.

### **Presentation Topic: Open pedagogy and OER**

#### **An approach of OER-enabled pedagogy: Designing a professional development OER about OER as part of a graduate level course experience**

Ji Yae Bong, Rachel Harris, Samira Karim, Yuan Chen, Gabrielle Adam, Celine Reyes,  
and Alexandra Maria Almonte, Concordia University

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: Innovative teaching, technology or design technique:

#### **Name of the innovation:**

An approach of OER-enabled pedagogy: Designing a professional development OER about OER as part of a graduate level course experience

**Type of innovation:** Teaching

#### **How the innovation works:**

The usage and acceptance of OER in Quebec's higher education institutions (HEIs) remains low and is not utilized completely (Canadian Digital Learning Research Association [CDLRA], 2018). Instructors and librarians in Quebec HEIs have gradually joined working groups on OER, including open textbooks. However, an intentional approach is required to envision and develop OER beyond its most basic usage—adopting open and cost-free textbooks—into its potential uses to promote the use of technologies for learning, advance sustainability of quality OER, and encourage informal and lifelong learning (Allen & Seaman, 2016; Padhi, 2018).

This innovative work highlights a solution that applies renewable assignments as an approach to OER-enabled pedagogy in two graduate-level courses at Concordia University in 2021. Renewable assignments, as opposed to disposable assignments, allow students to create OER and openly publish their work. The student-created OER in our case was a website that offers professional development resources for instructors, faculty, instructional designers, and the general public who wants to learn about OER, teach about OER, create OER, and implement OER-enabled pedagogy at all levels. The renewable assignment included (a) reviewing the existing student-created OER on the same topic, (b) curating or producing knowledge related to the assigned topic, (c) developing learning modules of the website, and (c) doing quality assurance reviews of other modules. At the end of the seminar, students were required to submit a portfolio of their work on the professional development OER for assessment.

#### **How to apply the technique:**

Our approach of applying renewable assignments was adapted from the previous teaching efforts made by Dennen and Bong in 2014 and 2020 (Dennen & Bong, 2015; In Press); and Davidson and Ariely in 2013 (Davidson, 2012 a; 2012b). Our solution, the application of renewable assignments in the graduate-



level courses, embraces open pedagogy and flexibility and provides content-based learning experience as well as authentic instructional design experience.

The instructor and teaching assistants were the learning experience designers and facilitators, and the students took the roles of curator, knowledge producer, or OER creator. The students participated in the overall collaborative design, development, and quality assurance review process for the OER.

### **Co-Creation in Course Design: Liberating Critical Consciousness Through Integrating Open-Access Simulations, Online Modules, and International Partnerships**

Laura Killam, Queen's University

Marian Luctkar-Flude and Jane Tyerman University of Ottawa

Track: Evidence-based practices in teaching / Volet: Pratiques de l'enseignement fondées sur des preuves

Type: Innovative teaching, technology or design technique:

#### **Name of the innovation:**

Co-creation with learners is an innovative practice rooted in open pedagogy.

**Type of innovation:** Teaching

#### **How the innovation works:**

By role-modeling reflective practice through dialogue-based debriefing of high-quality open access simulations and online modules students can develop the confidence and skills to advocate for vulnerable populations. In this same course students were invited to co-create aspects of the course syllabus. For educators working in larger classes moving towards more student-centered and empowering approaches to teaching may be challenging. In this presentation we highlight how leveraging partnerships like CAN-Sim can help educators design learning experiences that feel empowering and are interactive.

#### **How to apply the technique:**

We discuss 1) how online simulations and modules were used in one course context encourage reflective in-class dialogue; 2) the process used to co-create the syllabus through in-class discussions, online forms, in-class polling, and emails; and 3) how engagement with CAN-Sim strengthened both student and educator experiences.

### **Team-based Approach for Development of Quality Online SFM Courses with OER Content through International Collaboration**

Guangyu Wang, Michelle Zeng, Anil Shrestha, Chris Crowley, Hailan Chen, and Na Zhong,  
The University of British Columbia

Track: Partnering with Faculty and administration / Volet: Partenariat avec le corps professoral et l'administration

Type: Innovative teaching, technology or design technique:

#### **Name of the innovation:**

Team-based Approach for Development of Quality Online SFM Courses with OER Content through International Collaboration

#### **Type of innovation:**

Team-based approach for international collaboration on course development

#### **How the innovation works:**



In responding to the need of the changing world to provide flexible, equitable, accessible, and effective forestry education aimed at helping forestry stakeholders to acquire most current knowledge of SFM in the Asia Pacific (AP) region, UBC Faculty of Forestry in partner with the UBC CTLT and all AP-FECM member organizations has dedicated on the Sustainable Forest Management (SFM) educational online program for 10 years. Based on the successful international collaboration in Phase I of the program completed in 2016, in Phase II of the program wrapped up in 2021, 14 graduate level certificate online courses with its fundamental content as Open Education Resources (OER) were developed through international collaboration once again from 5 AP-FECM member universities.

A team-based approach to content development, learning design and project management was established to support the course development. UBC Forestry was the project and academic lead. UBC CTLT provided central support on learning and instructional design for each course. Each course formed an international course development team typically with a lead professor and multiple co-authors dedicated in developing the course. Content developers and media support assistants were involved as needed at member universities. The course development followed a modified ADDIE (Analyze, Design, Develop, Implement, and Evaluate) instructional design model. Quality Matters (QM) quality standard for online course design was introduced and used as guidance and self and peer-review instrument for quality online course development. As the results of collaborative efforts, 14 quality SFM courses were developed and with which a systematic curriculum was created covering a foundation of forest management and governance policies, conservation and forest sciences and so on.

The courses have been designed for catering the diverse needs and future development. Learning modules were broken down to weekly topics for easy repurpose and the OER course materials typically consist of background information, video lectures, supplemental readings, self-test, and self-directed reflection questions. This module-based format allows instructors to easily incorporate appropriate content into their own courses and allows institutions to customize and integrate the entire or 'parts of' each course to fit into their own education curricula and programs. This pedagogical model allows both self-paced learning and instructor-led learning to improve the flexibility and learner engagement thereby assisting the sustainability of this program. It supports flipped, blended, and online teaching approaches. It builds the foundation to potentially new Certificates, and/or Master online SFM programs and will be able to sustain in and be enriched by member universities.

### Innovative Topic Discussion

#### **LX and Accessibility - Beyond Compliance**

#### **LX et Accessibilité - Au-delà de la conformité**

Adriana Lopez Forero, William Fritzberg, and Sebastian Hanlon, Onlea

Track: Learning experience design/ Volet: Conception des expériences d'apprentissage

Type: One-hour Innovative Topic Discussion

There is a lot of discussion in academia about how to create accessible learning experiences. That said, so far, the knowledge of how to use accessible and inclusive learning tools has been put on the shoulders of students and central departments. Most professors, teachers, trainers, and teaching assistants do not know, and in some cases do not care, about accessible learning design. It's not their problem. The goal of this discussion topic is to create the empathy required to acknowledge that it is everyone's responsibility to create inclusive and accessible classrooms. If learning is for everyone, we need to learn how to teach everyone.

### Learning objectives

Understand the importance of accessibility requirements; Practice accessible learning design techniques; Commit to the practice of teaching with accessibility in mind

**Mercredi 4 mai / Wednesday, May 4**  
**12:15 – 12:45 pm**

### Pause / Break

Rejoignez-nous dans la Wonder Room pour le réseautage.  
Join us in the Wonder Room for networking.

**Mercredi 4 mai / Wednesday, May 4**  
**12:45 – 1:45 pm**

### Assemblée générale du Réseau canadien pour l'innovation en éducation / Annual General Meeting of the Canadian Network for Innovation in Education

**Mercredi 4 mai / Wednesday, May 4**  
**2:00 – 3:10 pm**

### Closing Keynote: Challenges and Opportunities for OER and OEP in the Next Decade

David Wiley, Lumen Learning and Association for Educational Communications and Technology

What lies ahead for OER and OEP? Join us for a discussion of the persistent challenges and surprising opportunities associated with open educational resources (OER) and OER-enabled pedagogy (OEP).



David Wiley is one of the most widely cited educational technologists today. Wiley is especially well known for his ground-breaking work on reusable learning objects and open educational resources. Unique in his ability to bridge research and practice, Wiley is currently the Chief Academic Officer of Lumen Learning and President-elect of the Association for Educational Communications and Technology, an international association with which CNIE is a partner. For more information, visit at [davidwiley.org](http://davidwiley.org).

**Mercredi 4 mai / Wednesday, May 4**  
**3:10 – 3:50 pm**

### Special Meeting of the Canadian Network for Innovation in Education

## Comité de congrès / Conference Committee

Cette liste rend hommage à tous ceux qui ont travaillé sur la conférence

This listing honours everyone who worked on the conference

2022	
Leadership	
<b>Conference Chair</b> Ji Yae Bong PhD. Assistant Professor Concordia University Educational Technology Program	<b>Conference Manager</b> Danielle Van Patter MA Student Concordia University Educational Technology Stream
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[List will be updated]	

**RemeRCIÉment spécial / Special thanks**

- De / From Hospitality Concordia:
  - Mariya Georgiva, Coordonnateur d'événements extraordinaire / Event Coordinator  
Extraordinaire Concordia University
- De RCIÉ / From CNIE
  - Tim Howard, RCIÉ Directeur de l'administration / CNIE Director of Administration
  - Barb Ford, RCIÉ Services Aux Membres / CNIE Member Services

## À propos de l'hôte de la conférence / About the Conference Host

Les programmes de doctorat, de maîtrise et de diplôme d'études supérieures en technologie de l'éducation de l'Université Concordia préparent les étudiants à des carrières dans le domaine. Nos programmes de doctorat préparent les étudiants à des carrières en tant que chercheurs, professeurs d'université, consultants, analystes politiques, administrateurs et cadres supérieurs, et concepteurs experts. Nos autres programmes préparent les étudiants à des carrières dans la formation, l'éducation et les travaux connexes, y compris le travail en tant que concepteur de programmes d'études, consultant pédagogique, spécialiste des technologies éducatives, et en tant que gestionnaires et leaders de ces efforts. Voici les principales caractéristiques qui rendent nos programmes uniques et attrayants:

1. Une approche systémique - non seulement en regardant la surface, mais en examinant tous les problèmes qui affectent l'apprentissage et la performance.
2. Un processus systématique - pour garantir une conception efficace.
3. Une préparation aux méthodes de recherche - pour s'assurer que les conceptions sont fondées sur des preuves.
4. Une préparation aux théories d'apprentissage - pour s'assurer que les stratégies pédagogiques tiennent compte des réalités de l'apprentissage humain et de la cognition.
5. Une préparation aux compétences en communication - pour s'assurer que l'instruction est claire.
6. Une préparation à l'utilisation des outils de production, à la conception de jeux, au conseil, à l'administration et à l'évaluation des programmes éducatifs - pour

The doctoral, master's and graduate diploma programs in Educational Technology at Concordia University prepare students for careers in the field. Our doctoral programs prepare students for careers as researchers, academic faculty, consultants, policy analysts, senior administrators and management, and expert designers. Our other programs prepare students for careers in training, education, and related work, including work as an instructional designer, educational consultant, educational technology specialist, and as managers and leaders of these efforts. Here are a dozen characteristics that make our programs unique:

1. A systemic approach—looking not only at the surface but looking at all the issues that affect learning and performance.
2. A systematic process—to ensure effective design.
3. Preparation in research methods—to ensure designs are evidence-based.
4. Preparation in learning theories—to ensure that instructional strategies address the realities of human learning and cognition.
5. Preparation in communication skills—to ensure that the instruction is clear.
6. Preparation in using production tools, designing games, consulting, administration, and evaluating educational programs—to prepare you for specific real-world challenges.
7. A practical orientation that's still academically rigorous
8. A network of partners who host outstanding internships and other experiential learning opportunities
9. An alumni network that remains enthusiastically engaged with our program

- préparer aux défis spécifiques du monde réel.
7. Une orientation pratique toujours rigoureuse sur le plan académique
  8. Un réseau de partenaires offrant des stages exceptionnels et d'autres opportunités d'apprentissage par l'expérience
  9. Un réseau d'anciens qui reste engagé avec enthousiasme dans notre programme
  10. Des professeurs universitaires réputés à l'échelle internationale en tant que chefs de file dans le domaine grâce à leurs recherches financées par des sources externes, à des articles largement cités, à des livres à succès et à leur engagement avec la communauté
  11. Les vastes ressources de l'Université Concordia
  12. L'environnement urbain unique de Montréal et la culture unique du Québec
10. Academic faculty with international reputations as leaders in the field through their externally funded research, widely cited articles, best-selling books, and engagement with the community
  11. The vast resources of Concordia University
  12. The unique urban environment of Montreal and the unique culture of Quebec