December 10, 2024

Dr. Alexa DeGagne, Chair

Centre for Interdisciplinary Studies

Faculty of Humanities and Social Sciences

Athabasca University

**RE: Application for the Position of Assistant Professor, Open, Digital, and Distance Education**

Dear Dr. DeGagne and Search Committee,

Thank you for taking the time to review my application package for this role. I know it is a time intensive process, having led and been a part of numerous hiring committees. As a graduate of the Master of Education (Distance Education) program at Athabasca University (2014), I am keen to have my application considered for both positions that you have currently posted.

My research program has produced a framework for integrating technology with learning assessment, the Technology-integrated Assessment Framework (TIAF) (Madland et al., 2024). The framework highlights the importance of integrating Indigenous knowledge systems and methodologies in technology-integrated learning environments during the instructional/learning design phase of course development.

Assessment strategies are an ideal framework from which to investigate any of the listed research topics, and I would like to point out some highlights from my career that have prepared me well for either of these positions.

# RESEARCH EFFECTIVENESS

## Research Statement

Educational assessment is at the heart of robust formal education systems and has been deeply impacted by both COVID-19 and by the broad emergence of generative artificial intelligence (genAI). My research program is focused, in the short-term, on refining and operationalizing the TIAF in the context of emerging technologies, such as genAI and artificial/virtual reality (AR/VR). In the longer term, especially considering this opportunity with Athabasca University, there is much work to be done to operationalize the refined TIAF by continuing to build a scale to be used to help individual educators, centres for teaching and learning, scholars of teaching and learning, and/or any other interested stakeholder to explore and understand the impacts of emerging technologies on assessment design and practice, and, by extension, to transform assessment practice in open, digital, and distance learning environments. The potential for transformative impact on education systems by paying attention to technology-integrated assessment is significant, as Ramsden claims, “assessment always defines the actual curriculum” (2003, p. 182). I believe that transforming technology-integrated assessment practices is one of the most powerful levers we have in the drive to enable access to a “world class university experience for every learner” (Athabasca University, 2024).

The TIAF comprises four primary constructs (assessment purpose, duty of care, technology acceptance, and measurement), each capable of supporting robust interdisciplinary investigations. Each of the four constructs are grounded in the 5 Rs of Indigenous education (respect, relevance, reciprocity, responsibility, and relationships) (Tessaro et al., 2018), making the TIAF a valuable tool for removing barriers to Indigenous learners and communities.

Questions that arise from the *assessment purpose* construct include investigating the impacts of AI use on the balance of assessment of/for/as learning in higher education practice. More specifically, emerging technologies including genAI and AR/VR, have provided opportunity for instructors to focus more on the *process* of learning and assessment for/as learning compared to the *products* of learning. The *duty of care* construct provides myriad opportunities for investigations into the ethics of genAI or AR/VR use and the ways in which it is important to prioritize human characteristics and relationships in education. Note especially the differential impacts on racialized learners and their challenges with using AI-powered remote proctoring services during the COVID-19 pandemic (see my proceeding that highlights my viral experience with this issue (Madland et al., 2022)). At the same time, there are notable benefits for equity-deserving groups (e.g. neurodivergent learners) who may be able to leverage boutique, privacy-protecting genAI models to preview and refine their work prior to submission to an instructor. Duty of care is especially important to prioritize in Indigenous learning contexts where there is a long history of exploitation, extraction, and extermination in the context of education (see my proceeding exploring this issue (Madland & Restoule, 2021)). The *technology acceptance* construct leads to questions about managing technological and pedagogical change in contexts with a focus on technology adoption by instructors. Lasting transformation of educational systems requires deep and careful work in managing change. My work as Director of Technology-integrated Learning and Assessment has given me clear insight and direct experience in managing and transforming educational systems and technological infrastructure at an enterprise level. This experience provides crucial context for my research into technology acceptance and adoption by the full breadth of stakeholders, from learners, to instructors, support staff, and senior administrators and board-level executives. Lastly, the *assessment design* construct offers many opportunities to consider pedagogical designs and architectures that maximize the impact of quality learning experiences. Too often, universal design for learning (UDL) is an afterthought or an add-on to existing educational and assessment designs, however in this framework, intentional focus is brough to bear on the up-front design of learning environments which are human-centred, equitable, inclusive, and accessible.

The TIAF as a whole and each individual construct described within present rich opportunities for research on learning through transformative digital systems. This wide variety of possible approaches to investigating emerging technologies in open, digital, and distance education leads to multiple opportunities for inclusive quantitative, qualitative, and mixed research collaborations for the benefit of remote, rural, and Indigenous communities. Further, as the framework is embedded within the 5Rs of Indigenous education, there are multiple possibilities for collaborating with Indigenous scholars and Nukskahtowin to explore these and other questions specific to Indigenous communities as we journey together towards kwayskahsatsowin and renewal.

## Sample Published Article

Please see the article I published in May 2024, in the OTESSA Journal:

Madland, C., Irvine, V., DeLuca, C., & Bulut, O. (2024). Developing the Technology-Integrated Assessment Framework. *The Open/Technology in Education, Society, and Scholarship Association Journal, 4*(1), 1–19. <https://doi.org/10.18357/otessaj.2024.4.1.63>

## Knowledge Dissemination

As a rule, I endeavour to publish all my research outputs under an open license and on the web. Below are two examples of these outputs. The first emerged from my PhD coursework as a visiting student at the University of British Columbia. This publication is a critical family history, an in-depth exploration of one of my ancestors’ emigration from Norway to the USA, then to northern and central Alberta, and finally to British Columbia. The framework of this publication is the history of the treatment of Indigenous peoples throughout North America that opened the way for my great-grandfather to emigrate from Norway.

Madland, C. (2019). Critical Family History [Blog]. Colin M. Madland. <https://cmadland.github.io/cv/timeline.html#critical-family-history>

The second example of knowledge dissemination is related to a viral moment that I and a colleague experienced on Twitter (now defunct). This conference presentation and proceeding described our experiences with the facial detection algorithm on Zoom, which, when posted to Twitter, showed a related problem there.

Madland, C., Ofosuhene, M., & Adkins, J. (2022). Digital Platforms and Algorithmic Erasure: What are the Implications? OTESSA Conference 2022. OTESSA 2022, Online. <https://doi.org/10.18357/otessac.2022.2.1.137>

The original Tweet that set it all off [is available on X](https://x.com/colinmadland/status/1307111816250748933), and also has been [ported to BlueSky](https://bsky.app/profile/cmadtweets.bsky.social/post/3lb5lhuo35c2w).

# Teaching STATEMENT

Teaching is a profound passion of mine, particularly when it allows me to apply my research findings in the classroom. My teaching experience spans K-25 in both public and private high schools in BC and Alberta; internationally as an assistant language teacher in Japan; and in both undergraduate and graduate courses in higher education. I have taught a diverse range of subjects in K-12, including physical education, digital media studies, outdoor education, sports medicine, science, English, and math.

At the University of Victoria, I co-designed and taught three online undergraduate courses: Learning Design, Distributed and Open Learning, and Social Media and Personalized Learning. These courses use WordPress as the primary hub of networked interactions, enabling students to personalize their web presence while acquiring critical digital literacy skills by engaging with the open web. (see my 2022 proceedings on multi-section course design (Irvine et al., 2022) as an example of how I share my practice in scholarly venues).

One of the highlights of my undergraduate teaching experience was co-designing and teaching in parallel with a fellow Ph.D. student during the early stages of the global COVID-19 pandemic. This collaborative process was mutually supportive and helped us navigate the complexities of teaching undergraduates in an innovative, technology-integrated context. Our experience is documented in a presentation at the OTESSA21 conference at the Congress of the Social Sciences and Humanities. I also co-designed and taught Coaching for Transformational Blended Learning and have been contracted to revise Theory and Practice of Adult Education, courses in the Graduate Certificate in Adult Learning: Coaching and Facilitation at TWU. These courses take an experiential approach to coaching individual learners and facilitating group processes in educational contexts. At the undergraduate level at TWU, I collaborated with an instructional designer to create an introductory online course called Learning with Technology which enrolled its first learners in the Fall of 2024. This course helps learners understand the affordances of technology for sense-making in learning environments by teaching them a technology-integrated workflow that maintains their personal privacy and teaches learners how to build networks of knowledge and learning using WordPress.

Since 2010, I have been primarily employed as academic management supporting technology-integrated teaching and learning, including faculty support roles at Thompson Rivers University (2010-2016) and currently at TWU (2016-present). In my current role, I co-manage a remote team of 15 people, including instructional designers, digital course producers, media creators, and education coaches and facilitators. We are currently working to design or revise over 100 courses in the TWU Bachelor of Arts in Leadership and Master of Arts in Leadership programs for flexible, community-connected delivery. In 2023 and 2024, I traveled to Kenya, Nigeria, Rwanda, and Uganda to provide faculty training on creating and managing courses in online modalities and in strategic leadership. I have supported the technology-integrated learning and reflective practice of teacher candidates in the TWU School of Education by initiating and sustaining the use of WordPress for creating professional portfolios that demonstrate competence in each of the Professional Standards for BC Educators. Additionally, I was invited as a guest speaker to present my research in technology-integrated Indigenous education to a class of teacher candidates in the University of Victoria teacher education program.

# TEACHING EFFECTIVENESS

* In progress
* Co-creating safe spaces for inquiry into meaningful questions and challenges
  + Rs – respect, relevance, reciprocity, responsibility, relationsdhip
  + Inclusion
  + Relevance
  + Duty of care
  + Diversity creates the conditions for new ideas
  + relationship
* Fostering curiosity about the world, why it is the way it is, and what we can do to improve it
  + Relevance
  + Learner autonomy and agency
* Learning can be a difficult process of transformation
  + Learning happens best when learners feel like they have permission to be wrong
  + Learning requires multiple opportunities for practice to build competence
  + Shuell (1986, p. 429), “If students are to learn desired outcomes in a reasonably effective manner, then the teacher’s fundamental task is to get students to engage in learning activities that are likely to result in their achieving those outcomes. It is important to remember that what the student does is more important than what the teacher does.”
* Assessment strategies and practices are the curriculum
  + Assessment of/for/as learning

# Service

I have been actively involved in university service both at TRU and TWU. At TRU, I served as a staff representative on the Graduate Studies Committee, including a brief tenure as Chair. At TWU, I have been a member of the Faculty Professional Learning Committee, advising the Associate Vice-Provost of Teaching and Learning on matters related to teaching excellence, education technology, and planning the annual faculty retreat. I played a pivotal role in leading the COVID-19 pivot to emergency remote teaching, supporting faculty in radically transforming their practice on short notice. This experience, despite its challenges, was immensely meaningful. In 2022, with the rise of generative artificial intelligence (ChatGPT) in higher education, I was appointed to the committee that drafted TWU’s policy and recommendations for navigating teaching and learning with AI tools.

In 2019, I was invited to join the inaugural board of the Open/Technology in Education, Society, and Scholarship Association (OTESSA), a member association of the Federation for the Humanities and Social Sciences. OTESSA is dedicated to supporting technology-enhanced teaching and learning from K-20+ and exploring the societal impact of openness and technology. Despite the cancellation of our first conference in 2020, I co-chaired the inaugural conference in 2021 and remain actively involved on the board, including being deeply involved with the creation of technological infrastructure and operations to support this rapidly growing scholarly organization.

I have served as a reviewer for multiple academic journals, including the Open/Technology in Education Society and Scholarship Association (OTESSA) Journal, Teaching & Learning Inquiry, Research in Learning Technology, the International Journal of E-Learning and Distance Education, and the International Review of Research in Open and Distributed Learning.

# Contributions and Aspirations

My Ph.D. research focuses on understanding technology-integrated assessment practices, reflecting their growing importance in education today. I am privileged to have distinguished committee members from across Canada: Dr. Valerie Irvine (Supervisor, University of Victoria Director of the Technology Integration and Evaluation Research Lab and President of the Open/Technology in Education, Society, and Scholarship Association), Dr. Christopher DeLuca (Committee Member, Queen’s University Associate Dean of Graduate Studies), and Dr. Okan Bulut (Committee Member, Associate Professor of Measurement, Evaluation and Data Science, University of Alberta and University of Alberta President’s Research Prize Recipient). I spearheaded an investigation into prevalent technology-integrated assessment practices as documented in the literature (Madland et al., 2024b). Building on these findings and leveraging our expertise in educational technology, measurement, and classroom assessment, we developed the TIAF that emphasizes the 5Rs of Indigenous education (respect, relevance, reciprocity, responsibility, and relationships), and the duty of care instructors owe to learners (Madland et al., 2024a). The TIAF is the contribution to the fields of educational technology, instructional design, and assessment of which I am most proud and hopeful. In the constant push and pull to integrate the latest emerging technologies, we must not forget that learning is a necessarily human process.

The final paper of my dissertation, which I expect to complete by the summer of 2025, will center on exploring the quantitative structure of the framework in order to refine and simplify it. Once this refining work has been through this first iteration, I look forward to being able to engage with the questions highlighted in my research proposal section in order to develop a diagnostic instrument based on the TIAF for use by individual educators and larger organizations. This diagnostic tool can then begin to generate data that can be used to highlight challenges in the current model of learning and assessment and then effect change based on our findings. Systemic transformation of educational and assessment systems is a significant challenge and we must “harness the power of research and innovation” (*Ahead of Tomorrow Strategic Plan 2023-30 University of Calgary*, n.d.) in order to progress. In a transformed system, education will become less susceptible to the overstated claims of the educational technology industry and more willing to engage in the thoughtful integration of technologies that enhance uniquely human capabilities.

To this point in my career, I have been completing my PhD part-time while engaged in a full-time career in higher education. This has left me with few options for finding funding (e.g, SSHRC funding is only recently available for part-time students, but I am no longer eligible because I am too far along in my program.) I look forward to being able to apply much more of my effort and energy into securing funding, not only through the Tri-Council agencies, but also through government, university, and other external sources. For example, I am privileged to have extensive backgroung with the Technology Integration and Evaluation (TIE) Lab at the University of Victoria where I have been mentored in strategies for securing funding from agencies like the [Canada Foundation for Innovation](https://www.innovation.ca/) (CFI) which matches seed funding at a rate of 4:1. This would allow me to leverage start-up funds provided in this position and quadruple the financial impact of that initial funding. My supervisor and mentor used this strategy to raise $1.4 million ($780,000 from CFI, the largest amount at UVic) to support the development of the TIE Lab.

My career thus far has balanced experiences in both K-12 and higher education. At the University of Calgary, I would have the opportunity to impact learning and assessment with technology at all levels from K-25 and beyond. The framework developed through my dissertation emphasizes the duty of care owed to learners and the 5Rs of Indigenous education, both of which are critical to human flourishing in the current technology-saturated context of formal education. This work is inherently collaborative, and I look forward to working with colleagues in the Werklund School of Education to advance progressive formal education.

# Evidence of Collaboration

I have prioritised collaboration throughout my career. All of my published journal articles and proceedings have been the result of rich collaborations across disciplinary areas and often across institutions. I have collaborated with at least 16 different research partners during my career and 7 different teaching partners since 2019. While I have not been in a role that allows me to supervise graduate students, I am regularly asked to provide peer mentorship to new Masters and PhD students as well as new sessional instructors (see my presentation on a collaborative teaching experience in 2021 (Madland & James, 2021)).

# Contact Information for Three Referees

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# Representative Academic Publication 1

Madland, C., Irvine, V., DeLuca, C., & Bulut, O. (2024). Developing the Technology-Integrated Assessment Framework. *The Open/Technology in Education, Society, and Scholarship Association Journal, 4*(1), 1–19. <https://doi.org/10.18357/otessaj.2024.4.1.63>

# Representative Academic Publication 2

Madland, C., Irvine, V., DeLuca, C., & Bulut, O. (2024). Technology-Integrated Assessment: A Literature Review. *The Open/Technology in Education, Society, and Scholarship Association Journal, 4*(1), 1–48. <https://doi.org/10.18357/otessaj.2024.4.1.57>

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