# Uplifting Your Learners: Utilizing Technology to Elevate Diverse Voices in Teacher Education Programs to Inspire Systemic Change

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#### ABSTRACT

This paper explores the role of technology in amplifying diverse voices in a post-secondary classroom context, both online and in person. This exploration reveals a lack of genuine, diverse voices in academia and the detrimental effects of diverse voices and authentic stories going untold. Two narrative inquiries are presented here, providing a glimpse into two specific instances of diverse voices being brought into the classroom space through technology, A cross-narrative analysis of the two narrative inquiries is conducted based on a review of relevant literature. Findings from the review of literature, the narrative and the cross-narratives analysis are then presented.

Keywords: Education, Technology, Diverse Voices, and Inclusion.

#### **1. INTRODUCTION**

Indigenous author Thomas King [1] posits, "The truth about stories is, that's all we are" [p.2]. Queer comedian Hannah Gadsby [2] also speaks about stories, sharing that she "need[s] to tell [her] story properly because you learn from the part of the story you focus on." If stories are all we are and we learn from the parts that are focused on, then what happens when the stories and experiences you focus on are inauthentic because of the lack of diversity in the academy? These less-than-authentic narratives are learned and internalized, which ultimately feeds inequity.

In Canada, post-secondary academic faculty and staff are less diverse than the post-secondary student body and the workforce [3]. This underrepresentation of diverse educators in post-secondary education negatively impacts the diverse voices and authentic stories present in academia. When diverse voices are limited, the valuable wealth of knowledge they possess goes unrecognized [4]. This prevents learners from obtaining valuable, diversified knowledge, and additionally deprives learners of opportunities to see themselves reflected in their learning. Underrepresentation also creates conditions where diverse students are burdened with bringing diversity into the learning environment [5] and, in effect, can be tokenized to provide the diverse, authentic stories that are lacking.

Therefore it is important to bring diverse, authentic stories and experiences into the learning environment. The University of Toronto's Centre for Teaching Support and Innovation [6] explains that "students are much more motivated to learn in classrooms that recognize them" [para. 1] and that if students' diverse selves and experiences are reflected in course materials, and the learning environment, they are more motivated to learn and are better able to connect and identify with their learning. This is also conversely true, as the Centre for Teaching Support and Innovation's [6] research shows that when students are not represented in their learning they find it harder to identify with and feel belonging in their academic and/or professional fields, which reduces their chances of thriving. Authentic representation in learning environments also aligns with van Oostveen's [7] Fully Online Learning Community (FOLC) framework, as well as Garrison, Anderson, & Archer's [8] Community of Inquiry Framework (COI). Both frameworks contain the dimension of Social Presence, which is defined as:

The degree of awareness, feeling, perception, and reaction to another person in an interactive online setting (Tu & McIsaac, 2002), implying greater fidelity and more genuine interactions that allow for the building of social relationships and the equitable, fluid distribution of community rights and responsibilities. [7, para. 4]

This speaks to the importance of social relationships in online learning, which van Oostveen posits can be built through genuine interactions [7].

Considering the underrepresentation that exists in academia, and the importance of genuine, authentic voices in educational practice, external resources, such as digital technology, can offer a platform that brings diverse voices into the classroom especially since more traditional, academic platforms are inaccessible to most. It also offers a way for educators to diversify the learning environment and share authentic stories while helping learners feel reflected in their learning space. This also limits the tokenization of learners [6], as the content available to educators through digital technology, like social media, is made voluntarily by diverse voices, typically for the purpose of educating others. This relates to several educational best practices, such as Universal Design for Learning (UDL), the FOLC/COI frameworks, and Problem/Inquiry-Based Learning. This paper explores the role of digital technology in amplifying diverse voices, with a focus on the post-secondary classroom context. Two narrative inquiries are presented, then examined, and pertinent frameworks and literature are reviewed, the findings of which will be discussed and recommendations made, particularly for post-secondary teacher candidate programs where evidence-based systemic change can be effected and carried down through the education system. For the purposes of this paper, authentic/authentic voices are defined as having lived experiences.

### 2. NARRATIVE INQUIRIES

# 2.1 Narrative Inquiry 1: Indigenous voices heard through technology

Indigenous peoples were silenced for so long. Our voices unheard, our sisters missing, and children murdered. Technology, for better or worse, has affected our peoples for generations. It has only been recently that digital technology has been used to reclaim our voices. Many Indigenous cultures have historically incorporated oral storytelling into their culture, which helps pass knowledge from one generation to another [9]. Now the storytelling tradition is used to reclaim their culture through digital technology tools.

My first exposure to post-secondary studies came with some unique challenges and learning experiences. The school I attended required students from the visual arts diploma program to take a native literacy course. As a person with Anishinaabe heritage, I felt welcomed to the school knowing that my culture was respected and taught to others, until I took the course. I was being taught Indigenous culture, literature and practices by a white woman, which was inauthentic. Other students and the instructor would ask my opinion on the topics in class, assuming I was an expert on all things Indigenous. This left me feeling as though I had to fill in the gap for an authentic voice and feeling inadequate on topics I was unsure of. I felt tokenized and uncomfortable being called upon without volunteering my input. Another educator within the school did not believe I was Indigenous when I brought up my concerns over the lack of Indigenous educators within the school and suggested I only identify as white so I do not carry any of the negative stereotypes when identifying as Indigenous. These attempts at inclusivity left me feeling as though the Indigenous curriculum was being assimilated into the current education model, leaving me feeling insecure and unsafe.

As I continued my academic journey, I found myself in education. At the post-secondary school I attended, they offered an Indigenous student centre on both campuses. Here, students can participate in cultural events and workshops as well as having access to elders, counselling and a space for cultural practices. This was a stark contrast to my previous experiences. I also decided to participate in another Indigenous course called Then, Now, Forever: Indigenous. This course was developed by a Metis man and I found myself feeling more confident in becoming an educator because I saw myself reflected in my instructor. To me this was important because, as stated by Pamela Rose Toulouse [10], "Indigenous peoples' experiences with education in Canada has been a contentious one...[as] colonial-based education has been centred on assimilation and or/ segregation of Indigenous peoples from their communities and worldviews" [p.1]. Having an educator with an authentic

voice helped with student engagement and participation as well as a sense of inclusion for myself.

After this, I entered an online Bachelor of Arts (BA) program for education. I participated in creating and taking an Equity, Diversity, and Inclusion course where I acted as an authentic voice in creation of the program and as student when taking the course. This program uses the FOLC framework [7] in a flipped classroom model. This allows for technology use to address equity and access issues for learners as well as using multimedia technology to incorporate authentic voices throughout the curricula [11] [7] [12]. The use of technology allows students the opportunity, but not the obligation, to add their own authentic voices as the digital videos and readings allow for outside authentic voices to be heard and used in a way of storytelling to reclaim their culture. The resources for the Indigenous topic in the course used authentic Indigenous voices which encouraged students to feel a connection to the subject matter. It also allowed students like me, uncertain of their identity, to feel comfortable with who they are, feeling no less Indigenous just because you are of mixed heritage. This gives people of indigenous descent the chance to learn about and reclaim their heritage denied at birth.

In my experience, using digital technology can assist the educator in amplifying the voices of those unheard in education [5] when an authentic voice is not available, instead of relying on students in a form of tokenization. My post-secondary experience differed at different institutions, suggesting that the plans for Indigenizing post-secondary curriculum vary greatly. If I had access to different resources or had an authentic teaching experience with an Indigenous educator, my learning experience would have differed.

#### 2.2 Narrative Inquiry 2: Queer voices and technology

Authentic, Queer voices are few and far between in academia, even if there are a significant number of Queer voices present on online platforms, such as social media. Despite the wealth of resources, made by and for Queer people, authentic, outside resources are rarely included or provided in the post-secondary context, limiting the engagement and genuine learning of post-secondary students.

In my experience in post-secondary, there are a limited number of instances where Queer topics are explored or featured in the classroom. Of these limited experiences, many of them lacked authentic voices, or even outside resources in general, instead relying on the straight, cisgender professor's inauthentic knowledge. Oftentimes this would result in inaccurate information and language being included in the course, which was the case in a psychology course on human sexuality I took during my previous studies. There were several offensive terms used, instead of terms more inclusive of and preferred by the Queer community, and no additional resources were provided, authentic or otherwise. This experience is, unfortunately not an outlier, as I had a similar experience with offensive language use in another course on children and youth studies, at a different institution.

I have also been placed in positions where I felt that I had to out myself to provide an authentic voice on Queer topics, as no other authentic voices were present. Another course I was required to take during a previous program was on the topic of advocacy and ethics, which spent some time going over Queer topics. The professor was again straight and cisgender, and authentic Queer resources were not a feature. During the week of the course earmarked for Queer inclusion, the professor was speaking about including diverse families, focusing mostly on non-Queer examples, when another student interjected and asked why there should be efforts to be inclusive of the Queer community because she felt that the Queer community "hated straight people." This was one example of several homophobic comments made that the professor did nothing to stop or correct. Due to this, I felt that I had to provide an authentic, Queer perspective, despite concerns regarding my safety in doing so. If Queer perspectives had been sought out and included it may have avoided or mitigated this incident, allowing time and focus for more genuine learning to occur. It also would have prevented the need for me to put myself in an unsafe position, especially if any authentic Queer narratives and inclusive practices had been supported by the professor.

Including more authentic, Queer voices, while rare, does happen. I have had experiences where professors employed inclusive practices and included authentic Queer resources. A professor of another class I took in the course of my previous studies made sure to include various examples of Queer picture books when discussing how to build inclusive learning environments. These books were either written by Queer authors or featured Queer characters and themes, some of them even having both qualities. The professor also provided various, multimedia digital resources from authentic Queer sources, including YouTube videos, songs and activities. In this class, there were no issues like the one described above and both my classmates and myself were able to freely engage with the lesson.

This trend of increased learner engagement and genuine learning occurring when authentic voices and stories are included in the classroom is one I have continued to notice throughout my studies at Ontario Tech University. The Queer content for a foundational Equity, Diversity, and Inclusion course was limited in terms of authentic Queer voices, which led to a lack of engagement during the tutorial session to discuss the content. There was, however, a last-minute addition of a guest speaker to the schedule, which allowed a Queer student from another program in the faculty to speak to our class, providing an authentic voice and experience that was missing from the content. While there was no incident involving overt displays of prejudice, there was still a lack of engagement that may have been influenced by the lack of authentic, preparatory content, as there had been for other preceding weeks and topics. Along this same pattern, I noticed that, during Problem-Based Learning (PBL) presentations, when I included more academic and/or practitioner resources and perspectives. I got little to no engagement, as evidenced by the feedback received, which largely pertained to the presentation's aesthetic design. Conversely, when I did a PBL that featured almost exclusively authentic voices, perspectives, and stories, the engagement I got tripled. The feedback in particular interested me as it was clear that, when I included authentic voices and sources, more genuine learning took place. The comments were almost exclusively about the content of the presentation and demonstrated a solid level of understanding.

#### 2.3 Cross-narrative analysis: Recurring themes

A narrative Inquiry methodology, which is a method that "anticipates that...participants...use context to situate their own

experiences using reflection," [13, para. 12] was used to develop the narratives presented, as well as to complete the cross-narratives analysis. The narratives were analyzed to determine recurring themes across both, which were found to be the lack of authentic, diverse voices in post-secondary education, the detriments this poses, and the benefits of ensuring that authentic, diverse voices and stories are included in the classroom. In both narratives, the authors make mention of previous educational experiences being led by educators who were not members of the diverse groups they were discussing, and how this had a harmful impact. This speaks to the underrepresentation of diverse identities in the post-secondary workforce [3], while also revealing a lack of diverse role models and therefore lacking curricular knowledge or authentically- developed educational content.

It is important to note that the authors of both narratives speak to this lack of authenticity and representation as being detrimental to their learning and well-being. In both cases, the authors felt disconnected from their learning and struggled to engage. They also mentioned feeling unsafe, as a result of failed attempts at inclusivity and anti-Indigenous/anti-Queer sentiments. The authors agreed that if more authentic voices were to be included it would be more effective and educationally beneficial, citing specific instances where this was realized through multimedia and digital technology. For one author, their academic institution offered courses written by an authentic source, or where multimedia technology brought in more diverse knowledge, perspectives, and stories that the author could better relate to. For the other author, when authentic multimedia/digital resources were included, the learning environment was much more welcoming and free of prejudicial attitudes. This allowed for easier engagement and more meaningful learning to occur on both an individual level, and as the author's experience with PBL projects revealed, on a class-wide level as well. For these reasons, both narrative inquiries indicate that using multimedia/digital technology to introduce authentic diversity, with content made by people from the communities which are being spoken about, is essential

#### **3. LITERATURE REVIEW**

The Canadian Association of University Teachers' report [3], establishes the lack of diversity among post-secondary staff. The findings of the report indicate that racialized women faced the highest unemployment rates, and are represented mostly in assistant professor positions, rather than full professor positions [3]. The report also details how only 1.4% of professors are Indigenous, and how these Indigenous professors are also less likely to have full-time and/or full-year positions [3]. Additionally, Queer faculty, despite existing equity, diversity, and inclusion policies, often do not feel represented due to inconsistency in policy implementation [14]. Moreover, the representation of Queer faculty in official publications, websites, or other promotional materials is vague, and usually gets lumped in the broad label of diversity, with no specific mention of the 2SLGBTQ+ community [14]. This removes the spotlight on the topic and makes it easier to be ignored. This lack of diverse representation is detrimental to the sense of inclusion and belonging that marginalized groups need in order to thrive in the classroom [6].

To address this lack of diversity and inclusion, the University of Toronto [6], along with Drew [15], and Hollenbeck and Hollenbeck [11], suggest utilizing technology to expand the confines of the traditional teaching space and materials, in order to bring diversity into the classroom in ways which are engaging and genuine to learners.

This suggestion is in line with the Universal Design for Learning framework, particularly checkpoints 7.2 and 8.1. UDL checkpoints are paramount to inclusion and classroom success, as CAST [12] states:

UDL aims to change the design of the environment rather than to change the learner. When environments are intentionally designed to reduce barriers, all learners can engage in rigorous, meaningful learning.

Checkpoints 7.2 Optimize relevance, value, and authenticity and 8.1 Heighten salience of goals and objectives [12] are research-based checkpoints that reflect the idea that learners learn best when their experiences are considered, incorporated, and valued [12] [16] [17] [18] [19] [20] [21] [22] [23] [24] [25]. Bringing authentic voices and stories into the classroom provides the relevance and authenticity that checkpoint 7.2 requires and demonstrates to learners through inclusion that they are valuable [12]. This in turn heightens salience and supports checkpoint 8.1, as the inclusion of authentic voices allows learners, especially diverse learners, to see the real-world connections between their learning and lived experience [12].

Using technology to diversify the classroom and course materials also aligns with the Fully Online Learning Community (FOLC) framework (see figure 1), developed by van Oostveen [7], which is similar to, but "represents a significant modification of the Community of Inquiry model" [7, para. 2] (see figure 2). The FOLC does not focus on teacher presence but rather focuses on shared presence for learners and teachers within the collaborative learning space. Despite any departures, both the FOLC and COI frameworks have considerable overlap and are utilized across a range of educational programming. Both relate to online teaching and learning environments and the significance of social presence and cognitive presence. With more of a focus on the learner, the FOLC specifically places a greater emphasis on the equity implications of these presences, and how they can contribute to a more inclusive learning environment [7].



Figure 1. van Oostveen's Fully Online Learning Community Model. [7]

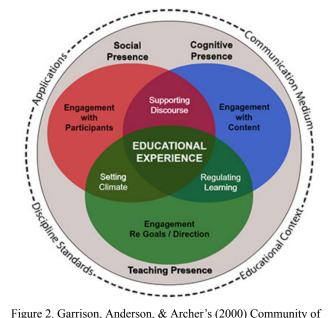


Figure 2. Garrison, Anderson, & Archer's (2000) Community of Inquiry. [8]

The FOLC framework also encourages the use of problem-based learning (PBL), which is:

an instructional (and curricular) learner-centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem. [26, p.9]

This type of learning highlights the relevance of students' lived experiences by allowing them choice in what problem(s) to investigate, and how to share this knowledge via PBL/problem-based learning objects (PBLO). These PBLs also function in both the cognitive and social presences, while also allowing learners to function in an "instructor" presence for their peers, which inherently places value on their lived experiences, in conjunction with the research they share [8].

Furthermore, expanding the confines of the classroom with technology, and utilizing these frameworks, aligns with a variety of student, equity and anti-bias-centred approaches to teaching and learning. This includes anti-oppressive frameworks that suggest looking at one's own positionality and privilege, and how that impacts the learning environment, as well as how their students may be impacted by their own positionalities [27]. One of the areas an educator may have to address within anti-oppressive teaching is the inclusion of genuine, diverse voices, how to source them, and whether their choices will lead to the tokenization of diverse learners [27]. This issue can be circumvented if the suggestions, made and tested by The University of Toronto [6], Drew [15], and Hollenbeck and Hollenbeck [11] regarding the uses of technology to source and present diverse voices, are followed.

Given that the practice of utilizing technology to incorporate diverse voices, as described in the aforementioned research, aligns with anti-oppressive practice generally, the connections between culturally relevant and responsive pedagogy, decolonizing pedagogy, and queer pedagogy, are readily apparent, as these theories contribute to and/or complement anti-oppressive teaching. For example, one of the principles of CRRP is using culturally relevant examples [28], which could be easily done in an authentic way utilizing technology, as outlined by the University of Toronto [6]. Another way using technology to expand the classroom actualizes anti-oppressive teaching is by incorporating methods of decolonizing pedagogy. This includes those listed by Heather Mcgregor in "Decolonizing Pedagogies: Teacher Reference Booklet" and "results in the re-centring of Indigenous ways of knowing, being and doing;" [29] by presenting genuine Indigenous perspectives of knowing, being and doing through technology. This also disrupts harmful narratives and stereotypes within education broadly, where that voice was traditionally excluded [28]. Similarly, the use of technology to bring in authentic voices and stories incorporates anti-oppressive teaching by presenting opportunities to compare, contrast, and dismantle traditional gendered ideas in education, with authentic 2SLGBTQ+ experiences. This contributes to the deconstruction of false binaries, which is an essential element of Queer pedagogy [30].

The University of Toronto [6] provides a comprehensive list of strategies to include representation in teaching practices, specifically recommending that instructors consider sources outside typical readings, such as digital technologies or resources that feature diverse, authentic voices. Some of the suggestions to successfully include representation in the classroom are:

• considering which perspectives are underrepresented in lesson materials during the planning stage,

· examining old disciplinary work and/or reading lists for

unintentional bias and gaps in diverse representations,

· learn about current students' backgrounds,

• investigating audio-visual media like YouTube videos, visual art, music, etc.,

• exploring diverse spaces on social media,

• look beyond the academy for resources to find

underrepresented sources,

• talk with students to engage in critiques of the dominant perspectives in the field [6].

Diversifying the voices and perspectives in education, especially in post-secondary education, creates "more richly varied educational experiences that enhance students' learning and better prepare them for participation in a democratic society" [31]. The exclusion of diverse voices has a restrictive effect on student learning [32], and other social and academic consequences, which can be seen when examining learner identity recognition. Ahmed [32], details the effects of learners' cultures being excluded and unrecognized, which include feelings of worthlessness, powerlessness and disillusionment, the underdevelopment of creativity and character, and decreases in academic success and social confidence. It is vital that post-secondary education programs and teacher candidates ensure that their classrooms amplify authentic, diverse voices in order to limit these potential outcomes and also to "reverse low levels of academic achievement" [p.7] as was the case in Au's [33] research with Hawaiian students in the Kamehameha Early Education Program (KEEP).

#### 4. FINDINGS

The analysis of the two narrative inquiries, combined with the findings from the review of the literature highlight the reality

that authentic, diverse voices and representation are lacking in the post-secondary context. In addition, the narrative inquiries and the literature make clear the detrimental effects of these omissions. This cross-narrative analysis also illustrates the benefits of utilizing technology to diversify and authenticate diverse voices in the classroom. Without authentic voices and representation in the classroom, learners will be less likely to fully engage with the content and experience genuine, meaningful learning; they may even experience discrimination. The literature review confirms the issues identified in the narrative showing inquiries, the impact of the underrepresentation of diverse voices in post-secondary faculty and staff, especially when compared to the diverse student body and workforce at large [3]. It also reveals the harm that can occur when inauthentic stories are platformed and diverse students are tokenized to attempt to fill in the lacking diversity.

Using technology to bring in diverse voices is one effective option that aligns with multiple educational frameworks and best practices. UDL, the FOLC and the COI are all such frameworks that support the suggestion of utilizing digital technology, as it applies to the principles of salience, relevance, social and cognitive presence, and student agency [12] [7] [8] [11]. The use of technology to bring diverse voices into the classroom is also in line with anti-oppressive practice, as it provides the kind of culturally relevant content learners need to engage and make connections to the material [27] [28]. The literature also indicates that ensuring diversity and inclusion in your educational institution is tantamount to providing learners with the rich and varied educational experiences they need to benefit from their learning [31]. It is especially important to use resources, such as digital technologies, in post-secondary teacher education programs so as to ensure that future educators are being properly educated in EDI that is relevant and beneficial for the countless next generations of learners that they, in turn, will educate.

## 5. RECOMMENDATIONS

Considering the underrepresentation of diverse voices and lack of diversity in post-secondary academic staff, technology is an effective way to bring in diverse voices and stories to authenticate and diversify the classroom. It allows educators to access resources made by diverse individuals and groups for the purpose of education and therefore provide salient, authentic, and relevant information to learners. These approaches are less likely to result in harmful effects such as tokenization and provide a model of appropriate technology use in the online learning environment. Technology can be used in conjunction with pedagogy such as student choice and interest. Students can seek out authentic, diverse sources as part of the PBL process. to allow them to practice sourcing, and utilizing these diverse voices, in preparation for their future educational practice. This paper recommends that educators seek out digital technology resources to diversify their classrooms and feature authentic voices and stories in their educational materials wherever possible, so that their learners, especially teacher candidates, can see themselves reflected in their learning. It is also recommended that PBL or similar inquiry pedagogies be incorporated to set up modelling to practice and receive feedback on this skill, to better serve their future learners and affect positive, systemic change.

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