HUMANIZING ONLINE LEARNING EXPERIENCES

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ABSTRACT

Background: It is common for postsecondary online students to experience feelings of isolation and disconnection that negatively influences their learning experience, academic success, and student retention rates. Best figure teaching practices regarding online andragogy (the method and practice of teaching adults) suggest that maximizing human interactions in online learning spaces creates feelings of closeness and connectedness. The positive outcome results in enhanced feelings of belonging and engagement motivation of students. A question to be answered is: What does it mean to humanize postsecondary online learning experiences and which strategies maintain this sense of human presence?

Purpose: This paper summarizes evidence from credible peer-reviewed literature related to the concept of humanizing online postsecondary education in order to enhance the online learning experience. Themes from the literature review are described.

Methods: We used a four-stage algorithm with 83 articles. Applying an exclusion and screening process yielded 15 articles for complete review. We conducted an interrater reliability check using two of the selected articles.

Conclusion: This paper provides practical guidance for online educators and course designers who aim to humanize postsecondary online educational experiences. To humanize technology is to dim the awareness and perception of the virtual aspect in digital milieus. In other words, in humanity-infused learning environments, participants view technology as an extension of themselves and as an asset that further strengthens the art and science of online pedagogy. Educators can deliberately use online pedagogical strategies to extend their humanity in online learning spaces. The outcome is postsecondary learning environments that students perceive as more caring and interactive and lead to enhanced engagement in learning, greater academic success (achievement of educational goals), and student retention.

Keywords: humanizing postsecondary online learning, digital pedagogy, online andragogy, caring online, digital milieus

HUMANIZING ONLINE LEARNING EXPERIENCES

One in five Canadian students are taking online courses with more than 1.3 million online course registrations (Canadian Digital Learning Research Association [CDLRA], 2019b). Online learning is vital as it promotes accessibility for a diverse set of students while providing a more affordable (CDLRA, 2019b) and flexible (Fox, 2017) educational platform. Online learning environments can feel isolating (Fox, 2017; Kebritchi et al., 2017; McKenna, 2018; Murray et al., 2015; Rush, 2015) and dehumanizing (Fox,
2017), which leaves students feeling disconnected (Fox 2017; Rush, 2015) and negatively influences their learning (Fox, 2017; Kebritchi et al., 2017). These limitations of online learning environments negatively affect course retention rates (Fox, 2017; Kebritchi et al., 2017) and can adversely affect online students’ success and their experience with the online learning milieu. Is it possible that there are strategies that online educators can use to help mitigate the possible negative aspects that can inhibit the potential of online learning? One key element in mitigating the dehumanizing and isolating potential of the online educational milieu is to be an educator who uses strategies to humanize the online learning experience. Therefore, this scoping review seeks to answer the following research questions:

1. What does it mean to humanize postsecondary online learning experiences?
2. Which strategies maintain this sense of human presence?

The major themes that emerged from the literature reviewed included pedagogical strategies and curricular considerations. Pedagogical strategy themes include learning community, engagement, collaboration, belonging, connection, interactive social learning, social presence, identity building, personalized learning, and educator characteristics. Curricular themes include techno-pedagogical tools that support interaction and synchronous or nuance communication; evolving pedagogical perspectives; and course design support for educators, students, and student-centered environments. This summary of research findings encapsulates guidance focused on how postsecondary online learning can be humanized with the goal of enhancing digital student engagement, achievement, and retention. Educators can deliberately use online pedagogical strategies to extend their humanity in online learning spaces. The outcome is learning environments that students perceive as more caring and interactive and lead to student success.

THEORETICAL UNDERPINNINGS

A constructivist lens can explain how students in virtual learning environments collaboratively create social learning experiences (Fox, 2017; Hilli, 2018; Kebritchi et al., 2017; Makani et al., 2016; Murray et al., 2015). Therefore, constructivism sheds light on the subjective experience evident within each student in a virtual learning environment. Constructivism views learners “as builders who are continually creating mental representations of events and experiences . . . [with this creation called] learning” (Melrose et al., 2013, p. 65). Knowledge is uniquely and individually constructed by students and is therefore significantly influenced by social interactions (Melrose et al., 2013). Moreover, a student’s digital identity, and how to create and express this, is constructed through virtual environment experiences and influences knowledge building (Astleitner, 2018; Hilli, 2018; Kebritchi et al., 2017; Nortvig et al., 2018). Constructivists build on what students already know, a process called scaffolding (Melrose et al., 2013). Effective scaffolding requires teachers to offer intentional, personal, and meaningful learning activities (Melrose et al., 2013). Overall, a constructivist lens illustrates how the subjective experience of a student in a virtual learning environment uniquely constructs their learning experience. Furthermore, it sheds light on the complex task of humanizing these virtual learning environments.

METHODS

The initial step of the literature review was to identify peer-reviewed research articles that focused on humanizing postsecondary online learning environments. The electronic databases utilized in the search included ProQuest Education, Wiley Online Library, Computers and Education, ScienceDirect, AU Library, EBSCOhost, ERIC, Educational Full Text, AU Press Athabasca University, Online Learning, and Education Research Complete. Outside of these databases, two specific journals were sought: International Journal of E-Learning and Distance Education. Keywords used in the search were:

humanizing AND online AND learning OR education, online AND learning, distance education, engagement AND online learning, online OR distance AND learning OR education, digital OR distance OR online AND higher education, digital AND learning OR education OR learner OR teach, humanizing AND learn OR teach, online OR distance OR digital AND learn OR teach, teaching AND higher education,
The search was restricted to peer-reviewed articles published between 2014 and 2019 that were available in full text, written in English, and relevant to the mentioned key concepts. The method involved a four-stage algorithm. On the initial search, 83 articles were located. In the next step, 25 articles were excluded because the titles lacked key concepts related to humanizing postsecondary online learning, digital learning, digital learning tools, postsecondary online class environments, and/or technology as a unique benefit to postsecondary students. The abstracts of the remaining 58 articles were scanned for additional key concepts, which resulted in the exclusion of 31 articles. The full texts of the remaining 27 articles were screened for relevance to key concepts, a process that netted 15 peer-reviewed journal articles. The algorithm of the literature search process is outlined in Figure 1. A summary of the articles reviewed are in Appendix A.

We conducted an interrater reliability check on the Astleitner (2018) and Fox (2017) articles. It is especially crucial for replicability for two or more people who are making decisions related to article screening and data extraction during a systematic review to transparently conduct an interrater reliability check. In this interrater check, two of us each read the two selected articles and independently applied the previously agreed upon four-stage algorithm to each article. The two of us then communicated and exchanged our independent assessment of each article. We agreed on all algorithm elements and each of us then conducted an independent analysis of each of the two articles by identifying themes through highlighting phrases and adding marginal annotations that included a suggested theme. We then compared our analyses and communicated until we achieved consensus related to the major themes.

The process used to conduct the thematic analysis of the selected papers involved several steps that were used by both of us. To begin, we kept the research question as the focus as we proceeded with the analysis. We each read the full text of the selected articles several times looking for repeated patterns and themes that were relevant to the research question. When a theme or idea related to the research question was found, we made a note on an electronic copy of the paper using an electronic annotation. This note was linked directly with the phrase in the paper and the note included a draft descriptive theme determined by us. After we independently reviewed each paper, we compared annotations, came to an agreement of the most descriptive wording for each theme, and collapsed some overlapping themes into a single theme.

There are several limitations related to this literature review. New literature on the topic is continually being published, and any literature review is potentially out-of-date the day it is completed. Only two of us conducted the article extraction and thematic analysis. If there were more of us, they would add additional insights and perspectives to enrich the analysis. The interrater reliability testing was conducted on a limited subsample of articles.

![Figure 1. Flow Chart for Selection of Studies Included in the Literature Review](image)

**RESULTS**

The major overarching themes from the literature reviewed include pedagogical strategies and curricular considerations. Pedagogical strategy themes are learning community, engagement, collaboration, belonging, connection, interactive social learning, social presence, identity building, personalized learning, and educator
characteristics. Curricular themes include technopedagogical tools that support interaction and synchronous or nuance communication; evolving pedagogical perspectives; and course design support for educators, students, and student-centered environments.

PEDAGOGICAL STRATEGIES

Fostering a Sense of Community

Supportive online andragogical social platforms enhance learning (Astleitner, 2018; Davis et al., 2018; Dryer et al., 2018; Fox, 2017; Kebritchi et al., 2017; Kurucay & Inan, 2017; Makani et al., 2016; McKenna, 2018; Murray et al., 2015; Nortvig et al., 2018; Rush, 2015; SSHRC, 2016). Incorporating social elements into online courses increases students feelings of connectedness (Astleitner, 2018; Fox, 2017; Kebritchi et al., 2017; Kurucay & Inan, 2017; Makani et al., 2016; McKenna, 2018; Murray et al., 2015; Nortvig et al., 2018; Rush, 2015; Sitzman, 2017). Fostering collaboration increases the sense of belonging and connection within a community, which promotes student engagement and participation (Astleitner, 2018; Davis et al., 2018; Fox, 2017; Makani et al., 2016; McKenna, 2018; Murray et al., 2015; Nortvig et al., 2018; Rogers-Shaw et al., 2018; Rush, 2015; Sitzman, 2017). Consequently, interactive learning communities facilitate student motivation to further engage and participate in social learning opportunities (Astleitner, 2018; Dryer et al., 2018; Fox, 2017; Kebritchi et al., 2017; Kurucay & Inan, 2017; Makani et al., 2016; Murray et al., 2015; Nortvig et al., 2018; Sitzman, 2017).

Maintaining a Social Presence

Social presence is the ability to decrease proximal gaps between online class participants through developing personal and meaningful connections (Dryer et al., 2018). Increasing social presence and a sense of community reassures students that they are interacting with real humans even in virtual settings, creating a humanizing effect (Fox, 2017). An educator’s social presence facilitates student learning, engagement, and participation, which promotes a sense of community (Dryer et al., 2018; Fox, 2017; Kurucay & Inan, 2017; Makani et al., 2016; Murray et al., 2015; Nortvig et al., 2018; Rogers-Shaw et al., 2018; Sitzman, 2017). Furthermore, educators convey digital caring when students sense they are “fully and authentically present” (Sitzman, 2017, p. 46).

Identity Building

Learner identity results from a sense of belonging to a learning community and influences learning motivations (Nortvig et al., 2018). Identity building fosters prosocial contexts that facilitate social-emotional engagement (Astleitner, 2018; Kebritchi et al., 2017; Nortvig et al., 2018). Educators who convey to students that they are unique and essential members of the learning community, help students build an identity within the learning environment (Kebritchi et al., 2017; Nortvig et al., 2018).

Personalize Learning Experiences

Personalized feedback is vital to making online learning more personable (Astleitner, 2018; Dryer et al., 2018; Henderson et al., 2017; Kebritchi et al., 2017; Rogers-Shaw et al., 2018; Sitzman, 2017). Personalized feedback can be provided through meaningful comments on forum posts, feedback on assignments, and personalized emails with individualized suggestions and observations (Dryer et al., 2018; Rogers-Shaw et al., 2018; Rush, 2015; Sitzman, 2017). A wide variety of digital technologies exist that can individualize the educational experience for each student (Astleitner, 2018; Davis et al., 2018; Dryer et al., 2018; Fox, 2017; Henderson et al., 2017; Kebritchi et al., 2017; Rogers-Shaw et al., 2018; Rush, 2015; Sitzman, 2017; SSHRC, 2016).

Educator Characteristics

Engaging with students is essential for online educators (Dryer et al., 2018; Makani et al., 2016; McKenna, 2018; Nortvig et al., 2018; Rush, 2015; Sitzman, 2017). Students notice their educator’s level of participation and engagement and this influences the learning environment (Dryer et al., 2018). Moreover, educator participation in the postsecondary online course fosters a sense of connectedness and influences socialization processes that in turn increase social presence, trust, and a “feeling of belonging and psychological closeness” among learners (Makani et al., 2016, p. 9). Therefore, online educators must be willing to “take the time and extra effort to create community” (Kebritchi et al., 2017, p. 20) and establish safe and supportive online environments (Astleitner, 2018; Dryer et al., 2018; Kebritchi et
In addition, online educators must have excellent listening and communication skills and hone critical reflection and engagement strategies (Kebritchi et al., 2017; Sitzman, 2017). Educators model course participation through engaging in forum discussions (Makani et al., 2016), and they enhance their ability to build healthy online learning communities through expressing an open and positive attitude (Astleitner, 2018; Kebritchi et al., 2017; Makani et al., 2016; McKenna, 2018; Nortvig et al., 2018; Rush, 2015; Sitzman, 2017) and providing timely responses (Astleitner, 2018; Dryer et al., 2018; Fox, 2017; Kebritchi et al., 2017; Rogers-Shaw et al., 2018; Rush, 2015; Sitzman, 2017). This increased educator participation further fosters a sense of closeness (Makani et al., 2016).

Consequently, Sitzman’s (2017) results from ten studies of caring in online teaching used Jean Watson’s human caring theory to suggest that Caritas practice can be utilized and taught in online classes. Watson’s transpersonal caring moments facilitate connections among people because these moments are times when participants are fully present and authentic in the ways they convey “concern for the inner life and personal meaning of another” (Sitzman & Watson, 2014, as cited in Sitzman, 2017, p. 46). The ten Caritas practices that support caring in online learning environments are:

1. Demonstrating loving kindness, compassion, and equanimity with self and others.
2. Being fully and authentically present.
3. Nurturing personal sensitivity through spiritual awareness and practice.
5. Engaging in authentic, nonjudgmental listening/interacting in both positive and negative situations.
6. Promoting creative problem solving through the full use of self and resources.
7. Employing transpersonal teaching and learning methods that honor the learner’s frame of reference.
8. Creating holistically healing environments at all levels.
9. Assisting with basic needs as sacred acts.
10. Opening oneself to mystery and unknowns and allowing for miracles.


These Caritas processes “resonate with the primal core of love from which caring intentionality originates before emerging into face-to-face, digital, or other domains of being . . . allowing it to serve as an effective framework for exploration and discovery now and into the future as new ways of interacting, connecting, loving, and caring unfold” (Sitzman, 2017, p. 50). Through increasing their participation within these Caritas practices, educators increase the sense of closeness in virtual learning environments (Makani et al., 2016). Furthermore, Sitzman (2017) demonstrated that “establishing global caring online teaching–learning–sharing communities is possible and that Watson’s human caring science is relevant in and beyond nursing” (Sitzman, 2017, p. 50).

CURRICULAR CONSIDERATIONS

Educators using online pedagogy platforms are challenged to find ways to effectively communicate with learners (Fox, 2017; Hilli, 2018; Kebritchi et al., 2017), promote engagement (Fox, 2017; Hilli, 2018; Kebritchi et al., 2017), and convey digital caring (Sitzman, 2017). Rush’s (2015) study found that “over half of the respondents who felt that the best aspect of being a distance student was ‘flexibility,’ also felt that the worst aspect of being a distance student was the lack of contact” (p. 10). The lack of connection creates feelings of isolation, which are linked to lower online course retention rates (Rush, 2015). Moreover, online andragogical social platforms enhance student satisfaction (Davis et al., 2018; Makani et al., 2016; SSHRC, 2016). As Kurucy and Inan (2017) concluded, “[s]tudent satisfaction is accepted as one of the five pillars considered when determining quality in online education” (p. 23).

Techno-Pedagogical Tools

Online learners describe this feeling of isolation noted above as a “sense of working in a void . . . [and] just typing into cyberspace” (Rush, 2015, p. 22). There are a variety of
techno-pedagogical tools that can be used to help humanize the online learning environment. These include interaction media and multimedia, social media, and virtual learning environments.

Audible or visual pedagogical approaches provide visual cues and increase instructor proximity in online learning environments (Dryer et al., 2018; Fox, 2017). Incorporating audio software into online learning spaces can enhance the communication of “emotion, personality, and other nonverbal cues conducive to better understanding and interpretation of meaning when collaborating in an asynchronous online environment” (Fox, 2017, p. 26).

Using multimedia further extends these opportunities to enhance online communication (Dryer et al., 2018; Henderson et al., 2017; Hilli, 2018; Kebritchi et al., 2017), and interactive collaboration (Davis et al., 2018; Dryer et al., 2018; Fox, 2017; Henderson et al., 2017; Hilli, 2018; Kebritchi et al., 2017). As an online pedagogical tool, multimedia enhances student-centered personalized learning (Dryer et al., 2018; Henderson et al., 2017; Hilli, 2018; Kebritchi et al., 2017; Murray et al., 2015; Nortvig et al., 2018; Sitzman, 2017; SSHRC, 2016). Accordingly, multimedia approaches assist with nuanced communication (Davis et al., 2018; Dryer et al., 2018; Kebritchi et al., 2017), which facilitates the extension of humanity throughout the online learning space.

Using social media in online teaching is a simple strategy to foster communication and connections (Hilli, 2018; Makani et al., 2016; McKenna, 2018; Murray et al., 2015). Some examples of social media used in online teaching reported in the literature include the use of Twitter (McKenna, 2018; Murray et al., 2015), the use of Facebook (McKenna, 2018; Murray et al., 2015), and the use of Blackboard (McKenna, 2018; Nortvig et al., 2018).

Virtual learning environments enhance communication among online students while obtaining multiple dimensions of learning (Hilli, 2018; Makani et al., 2016; Murray et al., 2015). Virtual learning platforms discussed in the reviewed literature include virtual classrooms such as Wimba and 3D Virtual Worlds such as Second Life (Murray et al., 2015).

Evolving Pedagogical Perspectives

Communication. Redefining communication as it relates to virtual learning environments is vital (Hilli, 2018). Techno-communication should not be viewed as an isolating media that is separate from human interaction but as an extension of the human controlling the technology (Hilli, 2018). Therefore, “merely applying technology tools is not enough; educators in all sectors . . . need to change their ways of thinking” (Rogers-Shaw et al., 2018, p. 20). Professional development for educators related to techno-pedagogy is essential to the development of excellence in online teaching.

Techno-pedagogy professional development. Many instructors feel uncomfortable with online teaching (Kebritchi et al., 2017). Moreover, nearly 75% of faculty stated that inadequate training or a lack of pedagogical knowledge as it related to online learning were barriers to online teaching (CDLRA, 2019a). More research is needed to support online pedagogy (Davis et al., 2018; Makani et al., 2016; SSHRC, 2016). Sitzman (2017) states that since “digital interactions are now elemental to the nursing role in most professional settings, understanding how to model, teach, convey, and sustain digital caring is critical to maintaining caring as a core value in nursing” (p. 46). Moreover, since increased educator participation is associated with an increased sense of closeness within virtual environments (Makani et al., 2016), it is vital that these educators possess the technical skills necessary to effectively establish such digital interactions. Professional development and training for educators in technopagodological skills is important to support effective online andragogy (Kebritchi et al., 2017; Makani et al., 2016; SSHRC, 2016).

Course Design Supports for Online Learning Environments

Course design. Educators must rethink teaching and learning to represent “an epistemological shift away from stubborn teacher-centered approaches and frameworks to more student-centered approaches and frameworks” (Rogers-Shaw et al., 2018, p. 23). Course design practices must evolve to meet the needs of online students and of changing online teaching environments (Kebritchi et al., 2017; Makani et al., 2016).

There is a high correlation between the perception of separation and students having
difficulty accessing online course information and resources (Rush, 2015). Technological support should be provided at the beginning of courses to avoid students facing barriers to accessing learning experiences and resources later in the course (Kebritchi et al., 2017; Kuruca & Inan, 2017). Ensuring that students are able to navigate the online course comfortably at the very beginning of a student’s experience reduces anxiety and creates a learning environment conducive to student success. SSHRC (2016) advises that the “best place to instill core principles and explicit course content in data literacy is at the undergraduate level, where the overarching goal is to equip students with essential, transferable and globally-competitive skills” (p. 23).

Furthermore, online course designs should reflect social justice and ensure that accessibility of learning is available to all students despite their demographic diversity (Rogers-Shaw et al., 2018; SSHRC, 2016). This becomes a course design consideration if some students in a course live in regions where there are limited internet speeds that make certain media or virtual tools inaccessible. Geography (or cost of technology or access to the internet) can put some online students at a learning disadvantage so course designers need to create courses that can be equally accessed by all students in a course.

**DISCUSSION**

The research questions to be answered by this systematic review are:

- What does it mean to humanize postsecondary online learning experiences?
- Which strategies maintain this sense of human presence?

In relation to the first research question, the literature reviewed showed that humanizing online learning environments and interactions have many benefits for students and learning. A learning environment that online students perceive as humanizing is present when students feel a connection and therefore closeness with one another and with the educator. A humanized online milieu employs technology in ways in which the technology is not a barrier to a personal and deeply meaningful learning experience. For example, skilled online educators deliberately use technology to support social interactions, create collaborative pathways, and allow the sharing of meaningful experiences among participants.

Students experience a sense of caring in humanized online environments. In part, they sense that educators are invested in their learning and that teachers personalize their pedagogical approaches to maximize learning outcomes and connections. The sense of closeness within virtual environments depends on an educator’s level of participation and engagement (Makani et al., 2016). Sitzman described this humanizing environment as one “where physical proximity is absent and a myriad of nonproximal interactive opportunities are routinely employed to maintain ongoing human-to-human caring connection” (2017, p. 46). Moreover, Watson’s 10 Caritas processes facilitate educators in “reaching across distance and time to convey, teach, and share caring and love with any and all who have access to digital resources” (Sitzman, 2017, p. 46). Hence, educators can deliberately use online pedagogical strategies to extend their humanity in online learning spaces. The outcome is humanized learning environments that students perceive as more caring and interactive and lead to enhanced engagement in learning and to academic success.

In relation to the second research question, the reviewed literature identified strategies that educators can employ to help humanize online learning environments. For example, digital technologies can be helpful; however, they are not being used to their full potential to achieve “creative, collaborative, participatory, and hyper-connected [environments]” (Henderson et al., 2017, p. 1576). Interactive software that enhances conversation and nuanced communication allows for more effective interpretations of nonverbal cues that provide meaning and understanding among participants in online learning environments (Fox, 2017). Incorporating synchronous communication opportunities enhance student interaction, achievement, perception of collaboration, and satisfaction (Kuruca & Inan, 2017; McKenna, 2018; Murray et al., 2015; Nortvig et al., 2018). Moreover, for virtual communication to be humanizing it must be enhanced to a “human level, meaning establishing a relationship and the ability to connect with students and help them to feel as a part of the class” (Kebritchi et al., 2017, p. 19). Communication media are pedagogical strategies
that reduce feelings of distance and separation among students and teachers through increasing connectivity, networking, and collaboration (Murray et al., 2015). Technology should be used to facilitate human interaction and learning as machines (if used effectively) are simply an extension of humanity itself (Hilli, 2018).

Another humanizing strategy is the creation of prosocial contexts that support healthy connections and social-emotional learning in online learning spaces (Astleitner, 2018). Social-emotional attachment “ranges from distance (without closeness) to near (closeness)” (Astleitner, 2018, p. 12). Belonging is a sense of community, and it influences the level of social-emotional student engagement (Astleitner, 2018). Therefore, if online students experience a sense of belonging, this translates directly to feelings of closeness (Astleitner, 2018; Henderson et al., 2017; Kebritchi et al., 2017; Makani et al., 2016; McKenna, 2018; Murray et al., 2015). Active participation is one strategy that mimics proximity in online classrooms (Dryer et al., 2018) and helps students achieve social-emotional learning outcomes.

Establishing a sense of community is another strategy that was revealed in the literature as a way to humanize online learning. Humans continue to transform what it means to express themselves online and to establish digital identities and communities within online learning environments (Hilli, 2018). Illuminating the community element as a component of the learning environment, one online student defined the learning space as “the way in which we interact with each other to help each other learn more” (McKenna, 2018, p. 16). Establishing learning communities fosters proximity among class participants (Dryer et al., 2018) and promotes socialization processes that construct student identity (Kebritchi et al., 2017). Student perception of closeness and belonging in the online learning space (that sense of community) is vital as each student constructs their learning environment (McKenna, 2018).

Strategies that use technology effectively to communicate (teach and learn) online are not enough to humanize learning. The human educator has an essential role to play. Educators must communicate with students at a “human level, meaning establishing meaningful relationships and connecting with students to help them to feel as a part of the class” (Kebritchi et al., 2017, p. 19). Communication has a wide variety of forms and profoundly influences one’s ability to engage, connect, identify with, and perceive a sense of belonging. Effective communication strategies that make students feel heard, valued, and important to the group humanizes online environments.

All online teaching and learning involve some use of technology. However, technology can be both humanizing and dehumanizing. Effective online educators deliberately humanize technology (or use technology in a humanizing way) to dim the awareness and perception of the virtual aspect of technology. In other words, humanizing educators use technology as an extension of themselves and as an asset to further strengthen the art and science of online pedagogy.

In sum, when students feel a sense of closeness between themselves and others in the learning environment the social milieu of the classroom is humanized. Educators must humanize digital social milieus to promote social interactions, communication, learning communities, connectedness, belonging, and engagement. Educators must hone their abilities with the art and science of teaching to express their personal characteristics through prompt feedback, social presence, personalized learning, and student-centered care. Improving online pedagogical approaches extends our human expressions within constructed online learning spaces and therefore extends ourselves into a humanizing space within a caring and interactive environment.

RECOMMENDATIONS FOR FUTURE RESEARCH

More research is needed to balance traditional methods with 21st-century digital methods to allow for theory and research to guide 21st-century teaching and learning (SSHRC, 2016). Future research is needed related to which technology tools are useful in promoting proximity within the online learning environment (Dryer et al., 2018). Additionally, research that evaluates the effectiveness of specific online pedagogical approaches in relation to humanizing online learning is needed. Finally, evidence as to the impacts of humanized online teaching and learning approaches on educational outcomes would (if positive) provide support for the inclusion of these strategies in online course design.
CONCLUSION

The findings of this literature review provide a foundation for understanding the humanizing of online education. Humanized online teaching and learning facilitates engaged, motivated, connected students and helps them hone their student identity and sense of belonging. Moreover, these findings can help educators and course designers create online learning environments that foster social interaction and facilitate collaboration, student-centered andragogy, and personalized learning opportunities. Strategies to improve online educator pedagogy include ensuring their social presence, paying attention to digital caring characteristics, effectively utilizing technopedagogical tools, and adapting course designs to bring out the human qualities of participants and further support online students in perceiving human interactions through virtual learning environments.

To humanize technology is to dim the awareness and perception of the virtual aspect of digital milieus. In other words, it is the ability to view technology as an extension of ourselves and as an asset to further strengthen the art and science of online pedagogy. Enhancing online pedagogical approaches extends our human expressions within constructed online learning spaces and therefore extends ourselves into a humanizing space within a caring and interactive environment. Educators can deliberately use online pedagogical strategies to extend their humanity in online learning spaces. The outcome is learning environments that students perceive as more caring and interactive that lead to enhanced engagement in learning and academic success.
REFERENCES


## APPENDIX A

### Summary of Reviewed Articles

<table>
<thead>
<tr>
<th>Author</th>
<th>Topics Covered</th>
<th>Approach Used</th>
<th>Country of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dryer, Arez, &amp; Larson (2018)</td>
<td>Theoretical framework to increase perceived proximity between students and instructors in online learning environments.</td>
<td>Literature review and theoretical framework.</td>
<td>USA</td>
</tr>
<tr>
<td>Fox (2017)</td>
<td>VoiceThread as an effective communication tool in online nursing education.</td>
<td>Mixed-methods design for master's of science in nursing; students in asynchronous learning environments.</td>
<td>USA</td>
</tr>
<tr>
<td>Henderson, Selwyn, &amp; Aston (2017)</td>
<td>Student perceptions of digital technologies.</td>
<td>Survey questionnaire of undergraduate student engagement with digital technologies.</td>
<td>Australia</td>
</tr>
<tr>
<td>Hilli (2018)</td>
<td>Rethinking communication in virtual learning environments.</td>
<td>Techno-cultural educational perspective to discuss virtual learning environments.</td>
<td>Finland</td>
</tr>
<tr>
<td>Kebritchi, Lipschuetz, &amp; Santiague (2017)</td>
<td>Learner, instructor, and content issues within online courses in higher education institutions in the USA.</td>
<td>Literature Review of 104 published peer-reviewed papers.</td>
<td>USA</td>
</tr>
<tr>
<td>Kurucay &amp; Inan (2016)</td>
<td>Investigated effects of learner-learner interactions on student perceived learning, achievement, and satisfaction.</td>
<td>Quasi-experimental research design with online undergraduate students.</td>
<td>USA</td>
</tr>
<tr>
<td>Makani, Durier-Copp, Kiceniuk, &amp; Blandford (2016)</td>
<td>Presented as an e-learning framework; identified core skills and knowledge that reinforce and promote deeper learning.</td>
<td>A systemic review and interpretive synthesis.</td>
<td>Canada</td>
</tr>
<tr>
<td>McKenna (2018)</td>
<td>Investigated higher education learning space of an online doctoral program.</td>
<td>Students and faculty were surveyed and responses were coded for the emergence of themes.</td>
<td>USA</td>
</tr>
<tr>
<td>Murray, Hale, &amp; Dozier (2015)</td>
<td>Assessed student use and perception of communication media in distance education.</td>
<td>Survey of graduate-level student use and perceptions through an online questionnaire.</td>
<td>Scotland</td>
</tr>
<tr>
<td>Nortvig, Petersen, &amp; Balle (2018)</td>
<td>Identified factors that influence learning experiences in e-learning, online learning, and blended learning.</td>
<td>Literature review of 44 peer-reviewed articles.</td>
<td>Denmark</td>
</tr>
<tr>
<td>Rogers-Shaw, Carr-Chellman, &amp; Choi (2018)</td>
<td>Influence of a Universal Design for Learning Framework on an online adult learning course.</td>
<td>Guidelines discussed as they relate to accessible online instruction.</td>
<td>USA</td>
</tr>
<tr>
<td>Sitzman (2017)</td>
<td>Establishing global caring/learning communities.</td>
<td>Meta-analysis of 10 published research studies that focused on digital learning that used Watson's Human Caring Theory.</td>
<td>USA</td>
</tr>
</tbody>
</table>