A conceptual model for pedagogies of care in online learning environments

Un modello concettuale per le pedagogie della cura negli ambienti di apprendimento online

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ABSTRACT This article discusses the importance of pedagogy of care designed for online teaching and learning settings. We offer a model for care in online education built on theoretical foundations, including Jerome Bruner's (1996) work on folk pedagogies. Through the lens of Bruner's folk pedagogies, there are new possibilities for developing folk pedagogies designed for care in online spaces. Threading this with experiential learning, humanistic psychology, and theory about technologies, we identify tensions within human-technological intersections, including the intersections of agency between human and machine. While such tensions are important to identify, there is also a need to move beyond the tensions and the implied binary between the human and the technological to envision new assemblages and creative possibilities that afford care and allow for student agency. Stemming from this model, we offer practical implications for educators and researchers towards a human-centered pedagogy of care for online learning pointing to technological futures.

KEYWORDS Online Learning; Teaching; Pedagogy of Care; Technology; Holistic Education; Digital Learning.

SOMMARIO Questo articolo discute l'importanza della pedagogia della cura progettata per un setting di insegnamento e apprendimento online. Proponiamo un modello per la cura nell'educazione online costruito su basi teoriche, incluso il lavoro di Jerome Bruner (1996) sulle pedagogie popolari. Attraverso la lente delle pedagogie popolari di Bruner, ci sono nuove possibilità per sviluppare pedagogie popolari progettate per la cura negli spazi online. Collegando questo con l'apprendimento esperienziale, la psicologia umanistica e la teoria sulle tecnologie, identifichiamo le tensioni all'interno delle intersezioni umane-tecnologiche, incluse le intersezioni dell'agency tra uomo e macchina. Sebbene tali tensioni siano importanti da identificare, c'è anche la necessità di andare oltre le tensioni e il binario implicito tra l'umano e il tecnologico per immaginare nuove combinazioni e possibilità creative che consentano la cura e facilitino l'agire degli studenti. Partendo da questo modello, offriamo indicazioni pratiche per gli

educatori e i ricercatori che vogliano indirizzarsi verso una pedagogia della cura centrata sull'uomo per l'apprendimento online che punti ai futuri tecnologici.

PAROLE CHIAVE Apprendimento Online; Insegnamento; Pedagogia della Cura; Tecnologia; Educazione Olistica; Apprendimento Digitale.

1. INTRODUCTION

In education, there is a presumption of care for students that goes beyond providing content and designing learning activities. Such care acknowledges each student as a human being with needs and aspirations. Recognizing and tending to the humans in their care is an ethical responsibility and mandate of every educator (Noddings, 2003). Although classroom research on pedagogy of care has flourished, most of this research has been in traditional face-to-face settings; thus, more work is needed on how online instructors experience and exercise care (Rose & Adams, 2014). Further, more theoretical grounding is needed to frame a pedagogy of care specifically designed for online spaces. This is necessitated by the fact that, even before the COVID-19 pandemic, online education was often accompanied by feelings of distance, isolation, disengagement, or a perception of not being seen as a person (Kop, Fournier & Mak, 2011). This problem of transactional distance (Moore, 1993) is complicated by digitally-mediated contexts, which can increase not only the physical but the psychological separation between the teacher and learner. Pedagogically speaking, they require the development of unique teaching and learning strategies or techniques, notably those that place more emphasis on care.

Technologies have affordances for connecting people, but they mediate experience differently than the face-to-face, embodied and inter-corporeal experiences of people who are physically together (Shin, 2017). Without careful pedagogical commitment that honors and enhances the experience of care, the teacher-student relationship and ethos of care can be diminished (Burke & Larmar, 2020). The COVID-19 pandemic and the urgency of its online shift has brought to the fore the difficulties of learning online in a human-centered way. Online environments can potentially diminish complex interactions, or create isolation and distance, such that conventional ways of forming identity in the classroom, as individuals and as a collective, are potentially reduced. (Gillett-Swan, 2017). They are often viewed as 'convenient' modes of learning, making them vulnerable to the efficiency mindsets that characterize many educational technology discourses and strip away the human side of learning. Yet, digital environments also offer new potentialities for interactions, connections, and embodiments (Rudnicki, 2017), especially when oriented to the humanity of each student and directed to their emotional wellbeing, excitement for learning, curiosity, engagement, and immersion opportunities.

Research has long pointed to the relationship between student engagement, perceptions of care, and feeling safe with sustained positive outcomes for students (Barnacle & Dall'Alba, 2017). In face-to-face learning delivery modes this focus on care has been an implicit understanding, built on empathy and closeness, personal contact, embodied presence, and interactions that serve the needs of students in a physical setting that affords social connectedness.

But how is care, as a real and tangible characteristic, translated effectively to online learning environments? Research in this space is not extensive, nor are there many empirical studies. There is also a relative lack of pedagogical theory around care directed at online settings. We assert the need to develop models for a pedagogy of care for online spaces and digital contexts that prioritizes care in juxtaposition to theories about the impact of technologies. It is useful also to recognize existing gaps and tensions in technological views

driven by neoliberal agendas and focused on efficiency but minimizing the humanistic goals of education (Mehta, Creely, & Henriksen, 2020).

We offer a model for care in online teaching and learning, built on theoretical foundations from Jerome Bruner's (1996) work on folk pedagogies. Using Bruner's folk pedagogies, we consider how teachers' existing folk pedagogies might require a re-envisioning in online spaces to support care and to foster the identity and agency of students. Threading this further with concepts from experiential learning, humanistic psychology, and theories about technologies, we identify inherent tensions within all human-technological intersections, including the intersections of agency between human and machine. From this model we offer implications for educators and researchers, toward a pedagogy of care in online learning pointing to technological futures.

1.1. *Gaps and misalignments in dominant educational technology discourses*

Although the complexities and misalignments of technologies with human needs have emerged more overtly in COVID-19 times, these are not new concerns. From the genesis of digital technologies in education, they have been relentlessly co-opted into efficiency discourses and high stakes evaluative mindsets (Moersch, 1997). There is nothing wrong with efficiency per se, and it can be a useful goal in many situations. However, in education discourses—particularly related to technologies and "21st century" thinking or skills—efficiency goals have often superseded or diminished the human-centered reasons for teaching and learning, such as learners and their interests, curiosities, hopes, and wellbeing (Mehta et al., 2020).

Students and teachers are expected to be fluent in technologies for workforce preparation; and technology is often implicated in 21st century skills rhetoric. Such rhetoric frequently takes its tone from the neoliberal push for global competitiveness, and labor-market work preparedness. Technologies are also linked to competitive and growth-seeking economic imperatives. Some scholars have argued that this has shifted the goals of education into the purview of technology companies, who have infused instrumentalism into schooling at all levels (Burns & Green, 2017). Nearly 50 years ago, before digitality in education was widespread, Hoos (1975) noted how educational trends seemed to view technology as being about efficiency, to the detriment of teaching and learning. She noted that education has often been a target of politicians and industry and chastised for "inefficiency," with an underlying assumption that using technologies brings intrinsic benefits for learners. Her work tied technological efficiency and increased big data access to the rise of standardized testing, which has become more entrenched and high-stakes in the decades since she wrote. Concerns about both efficiency and standardization have grown as educators and researchers have seen the failures of efficiency mindsets and questioned the assumption that merely putting technologies into classrooms could transform teaching (Cuban, 2009). Mishra and Koehler (2006) also contend that the field of educational technology has often been shallow in its theorizing of teaching and learning with technology.

With digital technologies mediating an explosion of online learning, there are concerns about a focus on care and human needs for collaboration, relationships, and wellbeing (Dumford & Miller, 2018). This is challenging for instructors who are unsure of how to manage the distancing effects of technology and evident barriers to the social or human connections of learning. While research reports some compelling examples of effective online teaching for care, many studies routinely show a lack of engagement among online learners as compared to face-to-face peers (Bergdahl, Nouri, Fors, & Knutsson, 2020), with higher levels of isolation or feeling forgotten or detached. Yet one could question why this should be, given that technologies are not a monolith—but a unique and varied set of tools - and thus labeling "technologies" as being distancing is somewhat reductive in assuming a diverse range of tools to all have similar effects.

The internet and digitality have affordances to forge connection, so these feelings of disconnection may not be intrinsic to the medium, but an indication of a lack of design for pedagogy of care in online spaces. Care

is harder to forget when other humans are in the immediacy of our physical space, but it may need overt and intentional design to be front-and-center in online spaces. The onset of the COVID-19 pandemic has provided ample anecdotal evidence of levels of disaffection with online delivery from both students and teachers who speak to the relational limits of online platforms. All this suggests the need for new models and teaching approaches grounded in care and humanistic learning purpose-built online spaces. This is premised by the notion that educators see learners as 'whole people' in providing care for a range of needs. Teachers may need to reimagine pedagogies that foreground the emotional needs of students and promote engagement and curiosity in learning outside physical classroom walls both intrinsically within students and among the community of learners within the class. We discuss the theoretical foundations for this re-imagining, foregrounding Bruner's folk pedagogies as a way to rethink teaching and foreground design for the needs of students in online spaces - notably for care.

2. THEORETICAL FOUNDATIONS

2.1. *Folk pedagogies*

noddings' (2003) seminal work identifies the *"ethic of care"* as central to teaching. She characterizes this experience of caring in terms of "engrossment" and *"motivational displacement"*. Engrossment involves *"an open, nonselective receptivity to the cared-for,"* a willingness to *"really hear, see, or feel what the other tries to convey,"* while motivational displacement is *"the sense that our motive energy is flowing toward others…I want to respond in a way that furthers the other's purpose or project"* (Noddings, 2005, pp. 15-16, as cited by Rose & Adams, 2014). We conceptualize "care" as a factor that allows viewing students as individuals with a range of needs that include not just learning, but broader facets such as emotions and wellbeing. Such a perspective recognizes the humanity of students, and aims to offer care in ways that further their learning and total experience as a person worthy of care. The basis of a pedagogy of care is found in deep connectivity between individuals and a learning community.

Pedagogical practices are deeply connected to the communication modes for teaching and learning. Therefore, a pedagogy of care requires consideration of how to connect with and care for students within particular modes, including the digital and online (Dalgarno & Lee, 2010). Because technologies, digital or otherwise, are complex, there is no one set of rules for how teaching and learning should look or what educators should do. Teachers need to consider who their students are as people and what their human needs are as part of a reflexive examination of their caring dispositions. To do this, teachers also need a frame for understanding their own innate pedagogical tendencies and a-priori beliefs about learning to identify where they might want to shift or consider ways aligning (or re-aligning) their pedagogies with the characteristic of care.

Bruner's (1996) concept of 'folk pedagogy' is a useful theoretical frame for considering pedagogical styles and their enactment in any medium. This allows educators to consider what they might implicitly assume or believe about teaching and learning, and how they might need to evolve and change given their goals, their students' needs, and the tools or environment on-hand, in order to mediate interactions and foreground care. We argue for the need to refresh folk pedagogies to support learning in virtual classrooms and online digital communication platforms. We offer strategies to conceive of the many ways in which Bruner's taxonomy could shift the pedagogical basis for caring educational interactions online.

Bruner (1996) proposed folk pedagogies as a taxonomic model for understanding the grounded knowledge and implicitly-held theories, beliefs, assumptions or biases about the nature of learning, as held by teachers and learners. These 'folk pedagogies' are enacted through teacher assumptions and perceptions

of how students learn, as well as teachers' own beliefs about what constitutes effective teaching practice. Bruner suggested that four primary 'folk' pedagogical stances characterize most teachers and he defined each of these into a taxonomic approach. Christensen (2020) further articulates these in a diagram directly constructed from Bruner's own concepts, as 'Do', 'Know', 'Think', and 'Manage' (pictured in figure 1, below). These are as follows:

1) Do. Considers the student as an imitative learner, and teacher as demonstrator.
2) Know. Emphasizes learning through didactic receiving, with the belief that students should be presented with facts and principles to accept and apply.
3) Think. Views learners as thinkers and emphasizes a "dialogue" between teacher and student that involves collaboration and negotiation of meanings between teachers and learners.
4) Manage. Conceives learners as managers of knowledge. It contends that teaching should help learners distinguish between personally held and culturally constructed knowledge.

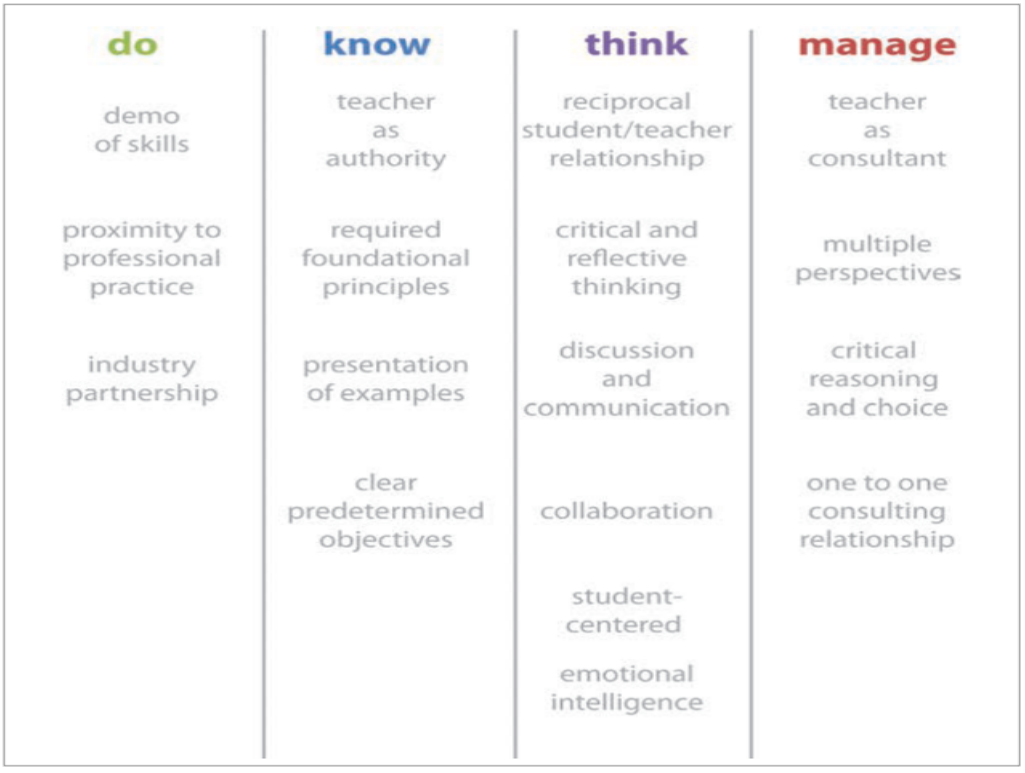

Figure 1. Adapted with permission from Christensen (2020, p. 256); printed in Henriksen, Creely & Henderson (2020).

Bruner's theory is rooted in the notion of 'folk psychology,' or lay theories that reflect humans' understandings or assumptions of the nature of the mind and how minds work to affect our interactions. He suggests that most educators tend to hold implicit theories of teaching and learning (which they may not be consciously aware of) that tend to fall into one or more of these four taxonomic categories. Bruner does not explicitly attach value judgments to these four categories of teaching folk psychology, but rather he describes (as defined above) the beliefs about teaching, learning and students that they tend to bring along into their practice with such a-priori beliefs. Certain stances, enacted in certain ways (such as "Know" if the teacher unrelentingly views themself as authority) may have problematic effects upon care. No two educators operate alike and thus teachers' inherent beliefs and tendencies may combine, permutate and emerge differently

within these four categorizations. Our goal is to advocate that becoming aware of and willing to shift one's own folk pedagogies to design caring learning spaces is important—particularly if the goal is to recognize how and where these approaches can support and design for care.

Considering the folk theories that are already held by both learners and teachers is essential for understanding how teaching and learning happens in any medium, but particularly as we aim to design for care in online spaces. As Bruner writes, *"Any innovations that you…may wish to introduce will have to compete with, replace, or otherwise modify the folk theories that already guide both teachers and pupils"* (1996, p. 5).

In other words, attempts at pedagogical innovation require an understanding of the existing beliefs and strategies of those who are expected to participate in teaching and learning. If learning to teach a different way is a goal, then *unlearning* how to teach in some situations may also be a consideration (Christensen, 2020). This pedagogical rethinking may be critical for online settings where learners have often reported disconnection, isolation, or disengagement. Online learning and digital spaces are different to those experienced face-to-face. Thus, it is not possible to simply do equivalent mapping from existing pedagogies in the physical classroom to ones online. Moving from face-to-face contexts, with embodied non-verbal cues and situational familiarities, to online environments, where these cues may be missing, can disturb accepted strategies for student care. There are a wide range of ways of revisiting and reimagining folk pedagogies for online care. We suggest just a few of many possibilities in the implications later in this paper.

2.1.1. *Teachers as designers*

It is useful for teachers to become aware of their own roles as designers of learning. Online spaces often require a significant amount of preplanned and advance-design, as course designs are often laid out to be provided to students who are often working through them on their own time (as opposed to showing up for the class week to week, they may be visiting the materials on an ongoing basis). This may be slightly different in fully synchronous online courses, but in general most online courses are a fully designed experience involving technologies, tools, and mediums which have unique affordances and constraints. In enacting a pedagogy of care, it is critical to use the space and design the materials and tasks as opportunities for connection and foreground students' voices to allow for curiosity and engagement. Although some teachers might tend toward applying the *Do* or *Know* roles as didactic default positions when they cannot engage in traditional face-to-face care, we instead suggest that moving to the *Think* and *Manage* roles may actually overcome communication barriers and allow students to be heard and engage to feel ownership of learning in the space. For instance, in an online Zoom session, a teacher might allow for some of the didactic (*Do*/*Know*) elements of learning asynchronously at home in a flipped way that supports care, by allowing students to engage with materials/information/knowledge on their own time. Students might then submit their questions, concerns or new ideas before the class session to bring forward their voices for discussion in a collaborative and reciprocal way (*Think*) during class, allowing more purposeful participation (note that this should be driven by all of students' submitted questions and voices, rather than just whatever the teacher selects to cover in the session). This can also be a way of allowing time for reflection on students' own time and supporting the ideas that they form at home, while also allowing consideration for students who feel shy or simply uncertain on Zoom.

2.1.2. *Intentional empathetic communication*

Taking established pedagogies into new disembodied spaces can make educators apprehensive, and students reticent because of the distance and isolation experienced. Offering *optional* video-conferencing sessions (for students who are interested) for care might be used intentionally to connect and engage with students empathetically to strengthen rapport, enhance emotional engagement, overcome ambiguity and foster mo-

tivation (Slagter van Tryon & Bishop, 2009). While such sessions should be "optional" whenever possible in order to respect students' schedule and autonomy, it can also be useful to poll students on times that they might be most able to attend such sessions if they wish, to offer opportunities based on their schedules and needs. Bruner's *Think* role is also explicit about connecting to student needs and emotional awareness. Providing brief online meditations, emotional check-ins or wellness checks and positive affirmations are measures that might align with a pedagogy of care and show support for emotional wellbeing that learners need (Shankardass, Robertson, Shaughnessy, Sykora, & Feick, 2019).

2.1.3. *Connecting learning to the student's world*

Students have lives and experiences that extend beyond any class, and while this is self-evident it can easily be forgotten. Connecting to their personal worlds and experiences is a way to establish a climate of care. The *Think*/*Manage* roles become a useful strategy to empower students and let them explore the personal within a caring community. Online settings have a unique affordance that teachers do not always engage with—that is learning is embodied from home. With no traditional physical classroom, we can engage in activities that connect to or use whatever is present at home or in the wider community (e.g., measuring area by measuring and calculating the area of a door in the room, or volume by filling a container of water). By engaging in *Think* roles, students can use critical/reflective thinking about how ideas actually matter in their lives, and there is the potential for reciprocity in putting learning into their own space as relevant to their world. We can also consider students' lives in more personal ways here, noticing students that might need help in other ways, and engaging the one-to-one consulting relationship of *Manage*, but in a way focused on personal care and wellbeing.

2.2. *Intersection of humans with technologies*

The shift to online learning and mixed delivery modes of teaching and learning, prompted by COVID-19, has foregrounded the place of technologies existentially in how we work, learn, interact, care, and communicate. Clearly, technologies mediate experience in ways unprecedented in human history, especially given the sophisticated digital modalities directing how we operate our lives. Philosopher of technology, Don Idhe, has considered the place of technologies in the embodied experience of human beings as a species (Idhe, 2002). Using a phenomenological approach, he concluded that, for humans, technologies as simple and complex tools are integral to the evolution and emergence of human beings and central to human experience. He argues that humans are adaptive beings and attributes the ongoing success of our species to the developing sophistication of technologies at the heart of work, including food production, industry, culture and the expansion of civilized society. According to Idhe, technologies are woven with embodiments, which become tangible tools that are co-extensive with bodies that act in the world. We suggest this may be the case for emerging online digital platforms for human engagement.

Arguably, this recent era of online digital communication spaces involves a different technological frame in which communication can be dis-embodied, distanced, and lacking historical human interactional markers and community contexts (Boler, 2014). Traditionally, bodies have been woven with technologies in the context of being with others, but online is still an emergent space for human interaction and meaning making where these intersections are more uncertain. This brings to the fore ideas about integrations and embodiments of technologies with the experience of humans, including how we care for each other in these new communication spaces (Rudnicki, 2017).

It is also worth considering another critical perspective about the intersections of humans with the material and the technological coming from scholars in the field of new materialism and posthumanism (Ferrando, 2013). In simple terms, this perspective centers on a critique of the tendency for privileging human agency in terms of interactions with the material. Scholars in this field suggest that there is a world beyond

the human that should be accounted for and is emergent, and thus challenges our anthropomorphism and privileges ourselves at the center of the world (Orlikowski & Scott, 2008). Karen Barad has argued for the important agential power and formative potential of the material (Barad, 2007). She suggests that we underestimate how fundamentally the material can direct (and has always directed) human experience. She suggests that we must consider the complex assemblages and entanglements of the technological with the human and then how such assemblages shape emergent identities between humans and the technological and form meaning.

The question here is this: how do these online platforms, with complex structures and logical hierarchies built into the software, shape the way we connect, perform, and embody with each other and to learn? Is care missed in the mediated delivery? How can these issues be kept in balance, considering the agency of technologies and the human need to connect, feel safe and experience care? These tensions are real for those who have experienced teaching and learning in synchronous online environments. Such tensions point to the need to account for both the technological and the human elements designing learning online. Extending Idhe's ideas, perhaps online environments are another technology that humans will adapt to and use, much like any other tool. We might conceive of futures in terms of these new adaptations and assemblages.

2.3. *Drawing on holistic education as a pedagogy of care*

While new assemblages and hybrid identities are being formed, human need and the provision of care remain challenging in online learning platforms. We suggest the significance and importance of embodied, holistic and experiential student-centered learning practices for sustaining care (Este, 2014). The challenge is in bringing the connectivity that has long been employed face-to-face, to online spaces.

In holistic education, for instance, the learning process and curriculum design emphasize connections and care internally, for the self, and outwardly through caring relationships in all facets of life (Miller, 2010). Educators translating their work into online environments may consider elements of this educational approach to infuse care throughout their teaching practice and utilize the classroom as home environment to their advantage, ultimately making learning more personal and embedded with their student's life experiences.

2.4. *Leveraging connections in holistic curriculum to convey care*

2.4.1. *External connections*

Through all six major connection areas, the holistic education curriculum centers on a pedagogy of care, while this may not be true for other educational approaches. The first three areas of connection focus on external connections—subject connections, earth connections, and community connections (Miller, 2010). Connecting subjects can involve teaching in an integrative manner, such as studying the culture, art, and literature of a specific time period. Miller's (2019) teaching approaches based on transmission, transaction, and/or transformation, each respectively rooted in behavioral, cognitive, and transpersonal psychology, can be translated to online spaces. In one lesson, a teacher may begin by offering a lecture to the whole class (transmission, or per folk pedagogies, *Do* or *Know*), then assigning students into pairs in breakout rooms to think critically about the material by answering discussion questions that allow them to apply content or further knowledge (transactional, or per folk pedagogies, *Think* and *Manage*), and end with students individually integrating their learning through their own personal reflections about the topic through writing drawing, or recording themselves speaking (transformational, or per folk pedagogies, *Think*).

In online spaces, in the absence of working in a school garden or taking field trips into nature spaces, earth connections can involve investigating immediate, natural environments and reporting findings back to the

class. Community connections, with teachers creating and upholding the conditions for psychological safety or all students, are essential. This includes a culture among students and teachers of mutual respect, responsibility, investment, and interest in learning and participation in the class community, with acceptance of mistakes as part of the learning process. Circle time can happen virtually to create a space for sharing experiences, playing games, or caring for oneself together through brief, guided meditation practices or yoga. Intentional community cultivation can also include ritual and ceremony, adapted to online spaces, such as hosting a dance party for shared celebration. Through community service and awareness of social issues, students are integrated into their own communities and develop identities as global citizens.

2.5. *Internal connections*

The inward-focused connections include thinking connections, mind/body connections, and soul connections (Hare, 2006; Miller, 2010). Thinking connections can integrate both hemispheres of the brain, the intuitive and logical parts of the mind, which encourages students to think critically and notice the relationship between subjects (Miller, 2017). Mind/body and soul connections allow a sense of peace to arise, such as experienced in mindfulness practices used by holistic educators, which are being taught in online spaces, utilizing the students' own environments.

Positive teacher-student relationships are key for holistic education. Conveying a warm sense of unconditional positive regard for students draws on the work of Carl Rogers (Trull, 2005)—who advocated for environments that emphasize active listening, empathy, support, and reflectiveness, to allow individuals to manage and solve problems and see the best in themselves and others in what could be viewed as a transformative pedagogy (Thompson & Henderson, 2007).

2.5.1. *Case example: A pedagogy of care meets holistic education online*

Well-designed online spaces for learning can afford as much deep knowing as is possible in face-to-face contexts. For instance, Angela Penticuff, a school teacher in Kansas City, Missouri, who teaches first grade online and has never met any of her students in person, told the New York Times: *"I know the toys they like. I know their pets. I know the clothes they wear. I know how fidgety they are. I know what makes them laugh. It's almost like the screen's not there"* (Nierenberg & Taylor, 2021). She reported that she uses the same teaching strategies she uses in person (albeit modified for online), including circle time (community connections) and new strategies, such as incorporating her bunny, Carrot, (earth connections) in lessons as an interactive component, particularly in math (subject connections). Thus, drawing on elements of holistic education and integrating these with the affordances of online learning environments leads to a pedagogy of care in viewing the student (whether online or face-to-face) as a whole person.

3. A MODEL FOR DESIGNING CARE IN ONLINE LEARNING CONTEXTS

In this section we propose and describe a new model for designing for care in online learning (Figure 1). This model is built on the literature and theory presented in the previous sections, and we have woven this together into a conceptual map as a way of understanding emerging online learning environments from the point of view of seeing the human (and care) in juxtaposition with the technological.

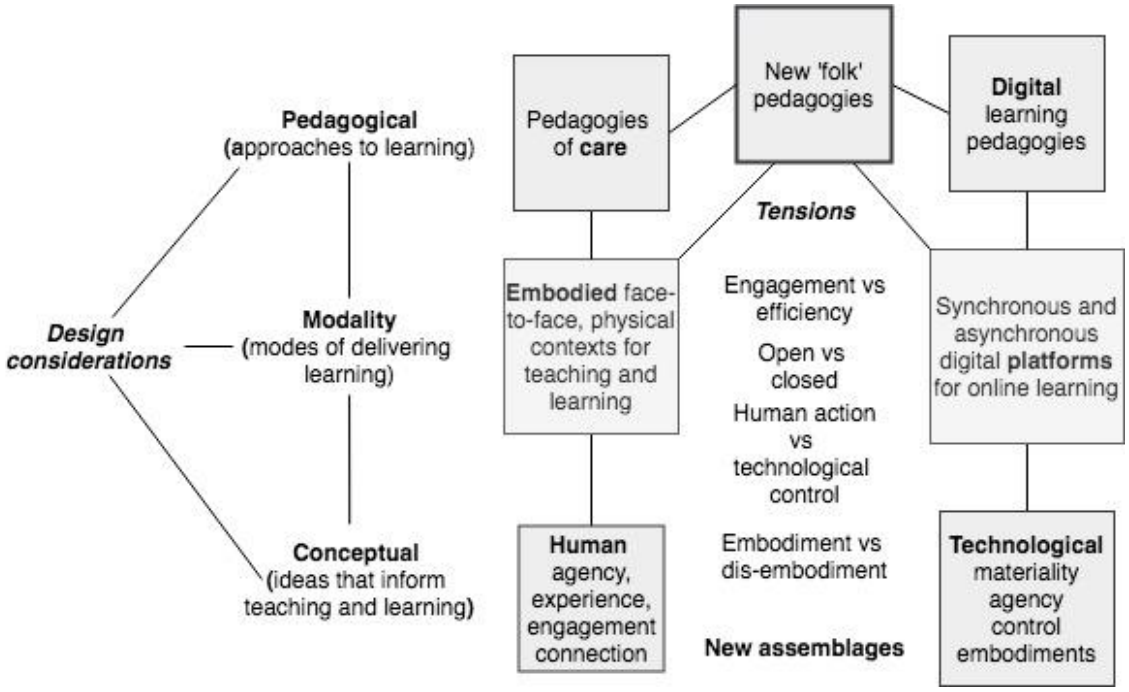

Figure 1. Designing care for online learning.

In embedding care within online learning environments, it is important to begin with a design perspective that leads to effective learning that accounts for care. In the diagram there are three design considerations that are positioned as rows: the *pedagogical* that sits behind the approaches to and practice of learning, the *modes* of delivering learning that include the set of characteristics of that mode, and the *conceptual ideas* that inform teaching and learning at the deepest level. These three considerations are not mutually exclusive but highly interrelated.

The columns of the diagram position traditional and embodied face-to-face learning with online learning environments. The first has a history of embodied human care, while in the second considerations of care are beginning to emerge in response to the complicatedness of such environments. Between these two columns (and across all the rows), there is a set of tensions that needs to be accounted for in designing learning for care online. At the top of the diagram, between each of these columns, is the idea that new folk pedagogies need to be developed that embrace both human need and care with the specificities of digital learning pedagogies and technology dispositions. The issue is how these new folk pedagogies can meaningfully and practically incorporate care at the center of learning.

The lines interconnecting parts of the model are fluid and can be understood to move in various ways (not necessarily linear), as each part of the model interconnects. The pivotal point of connection and 'flow' is the new folk pedagogies that form the connections between embodiments and care and online, technological oriented learning environments.

3.1. *Important aspects of the model*

3.1.1. *Considering the human in care*

The model includes recognition of the fundamental importance of the human in terms of designing effective and caring learning environments that include focus on student agency, the centrality of experience, the

importance of engagement in learning, and the significance of human connection. In face-to-face learning environments this pivot on the human has always been a feature and includes acknowledgment of complex human embodiments with the physical world and spaces, as well as intracorporeally, formation of identities, and the place of communication and language. Pedagogies of care are established on the intersectionality of all these elements, together with a climate of empathy in which each person is valued, and there is an attempt to acknowledge or understand the lived experience of others.

3.1.2. *Considering the digital and technological*

New digital and online learning environments both afford and limit how humans can operate and experience agency. Technologies can structure human interactions and determine the nature of human actions and there is also a need to learn the features of software interfaces and the functionality of digital platforms.

3.2. *Tensions between the human and the technological*

3.2.1. *Engagement versus efficiency*

Human care in learning environments is a product of engagement, and offering care begets engagement. On the other hand, digital online learning environments and platforms are designed and programmed to enable efficiency of delivery and effective communication. There is a tension between the engagement goal and the efficiency goal.

3.2.2. *Open versus closed*

In considering the interactions between human care and the technological limitations and affordances, how open and group-generated can online communications be? There is a tendency inherent in the technologies of synchronous online platforms for limited speaking and responding, often becoming only one-at-a-time.

3.2.3. *Human action versus technological control*

Clearly, technologies are powerful (have agency) and potentially control how humans act and determine the limits of human action. There is a tension for educators in designing with awareness of this technological control and power. Arguably, there are less limits to human action and agency in physical learning environments. However, it is also important for teachers to recognize how technology can also affect students in limiting ways. Technology affordances can be plentiful but problematic if they are used in ways that restrict (intentionally or not) students' competencies.

3.2.4. *Embodiment versus dis-embodiment*

In physical face-to-face environments there are many ways that humans embody, including movements in space and touch. In delivering care these embodiments are especially significant. There is often an assumption wherein people hope that synchronous tools can make online spaces more like face-to-face spaces, however this neglects the different physicalities and social realities (and fundamental differences of these spaces). Online environments are potentially dis-embodying (with the loss of three-dimensional bodily signifiers and social cues that emerge more clearly when people are physically together) and thus there is a need to find new ways to meaningfully embody in a group setting.

3.2.5. *New assemblages and embodiments*

Given the tensions between the need for care and the limits and possibilities of digital learning environments, designing for learning online needs to consider the new assemblages that are possible that can add

to care. There is also the potential of new ways to embody online that are generative for connection and care.

3.2.6. *Conceiving new 'folk' pedagogies for online care*

The conduits through which the tensions identified above can be resolved or at least accommodated involve the development of new pedagogies that consider the dimension of human connection and care, as well as an approach to learning informed by the connections and values embedded in holistic education, in concert with the limitations and the possibilities of digital environments.

4. IMPLICATIONS

We discuss the implications for research and practice of the model (Figure 1) in the context of the wide-ranging ideas presented in this article. These implications are the start of academic and practice conversations about bringing a care approach into online teaching and learning. The model is not about authorizing any particular practice or research emphasis in this space but is designed to guide the thinking and focus on some key emerging tensions and issues, with a recognition that others will emerge. The model also speaks to what might be done in order to shift from current understandings of online learning in digital environments to understandings that strongly include care. As part of this set of implications we offer practical examples of how an emphasis on care might play out in classrooms and other learning contexts.

4.1. *Implication 1: Fostering a dialogic approach in online learning environments*

Establishing and maintaining strong relationships through rich dialogue and purposeful sharing of ideas is central to care. Meaning making (and agential engagement) is created in the dialogic, as are interpersonal connections and thinking skills (Alexander, 2006). This development of dialogue opens up the possibilities of tangible care and emotional connection in the intersubjective presence of one with another online.

Practically, this could be facilitated using actioned group tasks (in breakout rooms, for example), ones that promote group building as well as group output - a culture of positive and strength-based community. In moving pedagogies of care to synchronous and asynchronous platforms, the opening of purposeful talk could be an important principle. A tension in the model (Figure 1) is the potential of online platforms, with strong technological controls, to diminish talk and interaction (closed), whereas holistic care is often found in an openness to purposeful group-based talk.

A new folk pedagogy, perhaps built from Bruner's notions of pedagogies for collaboration and emotional intelligence, may be found in designing the formation of purposeful receptive groups for talk. This overtly utilizes the sociability features of the platform. The software controls and rules about the formation of 'rooms' for talk can be employed to design learning for talk in digital environments, which suggests new assemblages (of the technological and the human).

An example to embody these ideas might be in the sequential process of using dyadic critical discussion in breakout rooms with whole group debate to follow. A class would be asked to consider a provocative question to do with the content for the session. Each pair is placed in a breakout room and is given time to discuss the question and prompted to be critical, even controversial. The whole class is reassembled and in turn each pair shares their ideas. After each pair is finished the facilitator/instructor prompts the class to enter into collaborative discussion and reciprocity with each other and explore their differences, respectfully. Not only is critical thinking promoted but connection and engagement between students can be enhanced. The affordances of breakout rooms can be used to overcome the tension between the dis-embodying effect of the

virtual space and the need to promote meaning human engagement that is often seen in face-to-face classes.

4.2. *Implication 2: Building online group identity with care as a core value*

Holistic education is intrinsically about a pedagogy of care, which translates well to online environments where this approach is especially important to overcome the disembodied impact of distance learning in online education. Central to this pedagogy of care, teachers demonstrate unconditional positive regard for students and set the tone for a caring community where students imbibe a sense of belonging. Through a pedagogy of care mediated by meaningful connections to learning and including all aspects of students in a class, students can feel wholeheartedly welcomed and become more comfortable engaging in growth-oriented ways. This can lead to self-discovery, development of new strengths, and enhanced self-esteem. Part of this development of meaningful connections is to bring the tangible worlds of students into the online space through sharing and purposeful peer engagement, so that the experiences of students become evident in what can be a disengaging space.

When teachers create the conditions for psychological safety in the virtual classroom, they embody acceptance for themselves and students with genuineness, create space for respectful and productive group dynamics; relationships characterized by a sense of shared community, belonging, and problem solving, which are inherently enriching and rewarding. When learning takes on connective qualities, the group can become a container for discovery, with identity and purpose greater than each individual. The class can function as a space to cultivate new embodiments through practices such as mindfulness, or be a vehicle for experiential learning, expanding on knowledge or problem solving, or increased relational ability through social interaction. These feelings or experiences are not restricted to physical spaces, as most people already experience caring for others in their lives across distances. In doing so, teachers might work in various ways with the affordances of digital online platforms to reconsider how caring dynamics emerge.

Building on the external connections in holistic education curriculum, integration of care into online learning and the development of class community identity can also be found through strong engagement with environmental and social issues that engender a shared purpose and can ignite a flame of deep connection (Miller, 2017). Online teaching geared to global issues calls for greater inclusivity and depends on an interactive, engaging class community.

The increased need to engage with well-being online, combined with inclusion of all parts of the student also suggests a new folk pedagogy "Be" inspired by Miller's (2019) three learning positions and their associated psychological constructs. This would add to but also move beyond the cognitive and behavioral aspects of Bruner's (1996) other folk pedagogies and into the transpersonal. Beyond the practices which help teachers and students develop their relationship to their inner life and a sense of embodiment, there are other implications for classroom dynamics, whether in-person or online. For instance, teachers can cultivate comfort with silence (which can be challenging in our technologically distracted world), or create routine for checking in with students' inner selves, fostering curiosity about the transformative potential of learning.

An example of an online icebreaking activity would be to randomly place students in groups of four in breakout rooms. In each breakout room, students tell each other what have been the successes in their lives and what they are especially good at doing. When the whole class comes back together, one nominated person in each of the groups might share these successes and strengths. The group is then encouraged to openly say what they admired about the other members of the group, and how this sharing has challenged them to grow. This activity is about using affirmation and intentional empathy to build a positive group identity online and help students get to know each other, so that they and the educator appreciate each other's worlds. In this way the environment that is potentially closed to rich human interaction is opened.

4.3. *Implication 3: Teaching is design, and care is a central design element of learning*

A pedagogy of care is about the experience, feelings and actions of caring for students (Noddings, 2003), but it is also an intentional practice of designing for care. While feeling and experience is the basis for a pedagogy of care, care itself must be woven intentionally into the design of learning. Design intention and action can embed care into what students experience in any class or course. Teachers are designers, and teaching is an act of design (Mishra & Koehler, 2006), as teaching involves designing learning experiences and outcomes for others. In doing so with care, we honor the idiosyncratic nature of each student's experience, recognizing their lives, curiosity, engagement, and wellbeing in all respects. Yet, even in face-to-face interactions teachers might miss opportunities for care, if they are not explicit in the plans and goals of each designed experience with students. In online interactions, where technologies mediate and increase the perceived physical distance, care requires even more intentional design.

This demands consideration for what care might look like online, without simply pushing existing content and pedagogies into a differently mediated virtual space. Because designers must consider the affordances of their tools, teachers should consider technological tools in terms of their affordances and agency. Every tool or technology has a unique agency which shapes our uses, behaviors, and thinking with it. A design perspective foregrounds this. For example, teachers can start the semester by taking a "care inventory" of all of the tools, technologies, activities, tasks, or platforms involved in their class, and noting the care-based affordances and constraints of each (i.e., What do these tools do? Where are the possibilities to enact care or support for students in this task or discussion? What can these tools do and allow for? What might they restrict or how might they cause harm or disenfranchise students?). Considering pedagogical moves and tools in terms of how they can be engaged for care, can help teachers design more deliberately to ensure that they are able to foreground care for their learners.

Bruner's folk pedagogies offer a frame for educators to reconsider how to ground themselves in pedagogical stances that allow for care online. This might involve considering how a shift in folk pedagogies could empower student voices in synchronous online sessions or asynchronous discussion. Or this might shift to a dedicated space in the program for wellbeing checks and holistic learning approaches. While there is no one formula for using folk pedagogies to rethink teaching and learning, it provides a taxonomy to rethink and (re)design the pedagogical stances and choices for any medium. By foregrounding care as an imperative in humanistic design for online learning, we believe new folk pedagogies will unfold in teachers' design decisions.

One activity to bring design into focus is to enlist students as co-designers. This is provocative in the sense that often the educator is positioned as the (only) designer and that the students have no agency in how the online classes are created and sustained. Throughout a semester or teaching period, time could be given to talk about what can be done to improve or add to learning online. This could be done through specific student-led talk time week to week, or through discussion boards for class ideas/suggestions/wish-lists on changes to make in action, or through anonymized surveys sent out regularly to solicit students' course design suggestions. Really, any activities or discussions that draw students in to share their needs, wishes and suggestions for the course can allow their voices to come forward--and engaging and acting on these suggestions in as much as possible is critical too. The idea of students as co-designers shifts the locus of control and potentially allows students more ownership of the learning and the context of the learning, including how the technological features of the learning platform might be utilized in innovative ways and with new embodiments (for a more in-depth case study example of student co-design of a hybrid/online course, see Henriksen, Mishra, & Cain, 2018). It might also engender care within the learning community

because the students become aware that this enterprise of designing for learning is theirs (as a community) to create as well. In addition, the online platform becomes more than a place for efficient delivery of content: it becomes a site for genuine student commitment to their learning.

5. CONCLUSION

We have discussed the need for pedagogy of care in online and digitally mediated learning spaces here. Our aim is to confront and change the narrative that many teachers and students experience in online settings, where they often describe something akin to the opposite of care, via feelings of isolation, stress, confusion, disengagement and disillusionment, when the psychological distance between teachers and students mimics the physical distance.

We seek to reclaim many of the current educational narratives around technology and redirect them to considerations for care. This reclaiming is needed with respect to many 21st century narratives about efficiency, performance, and atheoretical discourses about "transforming" learning to produce more prepared workers. While we emphasize that this does not tag efficiency as a bad objective or suggests that we should ignore our duty to prepare students for work, it does point to how existing narratives surrounding technology have too often neglected the unique humans and individuals that these narratives center upon. Such narratives have also failed to recognize the agency of different technological tools in mediating human feeling and behaviors. The design of the tools we use have a tangible effect on our interactions, experiences and feelings. Winston Churchill once noted, "*We shape our buildings; thereafter they shape us*". A similar sentiment might be made about technologies. We design our tools; thereafter they design us. Recognizing the intention and agency within tools empowers us to use them appropriately toward humanistic purposes. We offer a model for care built on theoretical foundations related to Bruner's (1996) work on folk pedagogies. We also point to elements of theory from holistic education, philosophy of technology, new materialism and posthumanism that can inform this model. In considering the folk pedagogies that educators currently use, they can consider new ones ("Be) and recognize where a shift may be needed to foreground care online and make design choices accordingly. This may be more pressing and apt than ever, as we write this during a pandemic when much of the world has moved learning online. Online learning will likely only continue into the future, and it is imperative that our duty of care should not be diminished when mediated by distance or technology. Rather we must intentionally design for care, to ensure that our learners as people do not get lost along the way.

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