Alternative lifeworlds on the Internet: Habermas and democratic distance education

Thesis

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Abstract

Current distance education practices can be susceptible to types of content-heavy, top-down instruction often seen in physical classrooms. These practices are similar to the activities of corporations, which use recommendation systems and game theory to mold the public sphere and fragment it. We propose that free knowledge creation through open, multichannel communication needs to be used in distance education to allow both individual and collective agency for students to process knowledge and develop higher order reflectivity. Such frameworks would help students of distance education, and instructors to use critical thinking to discuss concepts as equal stakeholders, and develop varied ideological outcomes that could contribute to creating social change. This conceptual paper places current distance education practices within Habermasian theory, discusses ways in which the Internet, and its educative potential has come to be viewed thus far, and suggests platforms that could open distance learning to new possibilities.

Dedication

I dedicate this to everyone out there, especially during COVID, because everyone should have the opportunity to engage with such learning online right now. I would also like to put this out there for my parents, because they brought me up to think like this, and gave me the opportunities to be here. To my program as well, especially my lab, and our faculty. This is for those that trusted me.

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I would firstly like to thank my advisor, Michael Glassman, for having faith in my abilities. He really inspired me to get back to reading critical theory, and trying to understand how the merger of this powerful form of critique with the practical machinations of educational psychology can produce stunning results. To my lab (Logan, Irina, Marvin, Wendy, Qiannan); all of you have helped me immensely in developing my ideas. Working with my friends and creating the environment we have right now reflects the arguments made in this paper a lot. Lastly, I would like to thank my undergraduate advisor, Dr. Maya Dodd, for teaching me critical theory in the first place. While I did not fully understand it then, I now value what I learnt, because it lies at the basis of how we treat one another as humans.

Vita

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Freelance Counselor (REMOTE) • Collegepond • 2017 August – Present
Assisting students in India with graduate studies applications through online counseling processes.

Teaching Aide • Ohio State childcare program • 2018 September – 2020 January
Providing instructional assistance to teachers in preschool classrooms.

Editor (remote) • GoUNESCO • 2016 August-2018 December
Providing editorial assistance to interns, conducting search-engine optimization on the backend.

Clinical research assistant • HINDUJA HOSPITAL & MRC •2017 August- 2018 May- Mumbai, India
Co-authored qualitative and quantitative research papers with doctors from the neurology department based on occupational therapy home program development

Intern • Conde Nast India (GQ) •2016 May- 2016 July
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Publications

Tilak, S., Kuznetcova, I., Glassman, M., Peri, J., Wang, Q., Wen, Z., &Walling, A. (in press). Multi-user virtual environments (MUVE's) as alternative lifeworlds: transformative learning in cyberspace- *Journal of Transformative*

Tilak, S., & Glassman, M. (in press). Alternative lifeworlds on the internet: Habermas and democratic distance education. *Distance Education.*

Glassman, M., Kuznetcova, I., Lin, T.J., Tilak, S., Wang, Q., Walling, A., Wen, Z. (in press). Spaces of Rebellion: The Use of Multi-User Virtual Environments in the Development of Learner Epistemic Identity. *The Journal of Experimental Education*

Fields of Study

Major Field: Educational Studies

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Chapter 1. Introduction

Since the Internet became a publicly available in the 1990's, there has been much research investigating how technology can be used in educational spaces to change human thinking, and create environments encouraging critical discourse (Rovai, 2002; Stahl, 2006; Scardamalia & Bereiter; 2003, Lakkala, Paavola, S., Kosonen, Muukkonen, Bauters, & Markkanen, 2009; Glassman, 2016). While blended, physical classrooms show potential to combine direct instruction and collaborative learning, distance education has often focused on providing knowledge as a product to a large quantity of individuals. Even though the Internet offers the capacity to connect individuals located beyond proximal spatial boundaries (synchronously and asynchronously), modern distance education mainly creates systems that deliver information to students rather than allowing them to interact with one another and discursively create new knowledge. This industrialized distance education which runs on a "mass-model" often strays away from the opportunities for technology to provide learners with avenues for agency to use their knowledge to create social change, and a rich public sphere (Tait, 1989; Peters, 2002).

When knowledge is created in learning environments by individuals functioning as equal agents, it paves the way for the use of critical thinking in the classroom towards the achievement of common goals (Dewey, 1916). As we enter the thick of the postmodern world, where the truth is multidimensional, the use of social processes to

create new knowledge (Vygotsky, 1978) paves the way towards critical consciousness or conscientization; a condition where individuals use open discourse to develop nuanced understandings of social, political and scientific phenomena (Freire, 1973). Technology has vast potential to allow participatory interactions which facilitate critical thinking and collective agency. The potential for uncivility and chaos in open digital environments is also quite pronounced, as sometimes seen on public Internet forums.

Creating higher order reflectivity with the help of the Internet becomes an achievable possibility in deliberative, technology-assisted classrooms, as discourse can be regulated to create 'ideal speech situations' (Habermas, 1970), and technology can be used as a scaffold (Scardamalia & Bereiter, 2003), or a program/platform that guides on-task behavior. We suggest that deliberative processes need to be encouraged in distance education, by allowing opportunities to break free from teacher-driven environments and create egalitarian learning spaces within which open interactions can take place. Negotiating these varied responses between multiple equal stakeholders can help in creating nuanced learning trajectories by combining the everyday thinking of the student with the scientific (teacher-driven) concepts of the institution to create a dynamic zone of possibilities (Vygotsky 1987). A balance between serendipitous social processes (Vygotsky, 1978) and teacher-driven infrastructure (Bruner, 1978) can lead to on-task behavior, as well as the agency to develop new knowledge.

In this paper, we offer a framework that uses Habermas' (1989) idea of the public sphere to highlight how spaces of informal discussion on the postmodern Internet could be mirrored in distance education, to produce individual and collective agency in student

learning. We first outline how Habermas' (1989) theory applies to the Internet and distance education, and then discuss how current, content-heavy practices in distance education are a byproduct of the ways in which technology is used to mold the public sphere. We then propose that the possibilities for knowledge creation (Scardamalia & Bereiter, 2003; Lakkala et al., 2009) should be reflected in distance education by outlining platforms that can fit within this framework.

Chapter 2. Theoretical Overview

The public sphere and democracy on the Internet

The critical theorist Jürgen Habermas' idea of the public sphere can help define standards for participatory democracy. The public sphere is the social realm where individuals exchange thoughts as equal agents exercising communicative rationality. Coffee houses and salons are spaces that allowed open exchange in the modern era by creating smaller lifeworlds (private spaces for discourse) (Habermas, 1989). Ernest Hemingway (1964) describes such spaces in *A Moveable Feast*, recounting his time in modernist Paris. Hemingway proclaims, "Paris was always worth it, and you received return for whatever you brought to it" (p. 95). While these spaces did encourage free discourse, they were limited in access to the bourgeois.

Hemingway's anecdotes describe times when these lifeworlds were somewhat detached from political and/or economic control. Today, coffee houses are controlled by corporate bodies (e.g., Starbucks), and academic salons are dominated by think-tanks and interlocutors with larger agendas (publishing companies). While these discursive environments now provide wider access, the interactions they create can often be shallow and wide, rather than deep and meaningful. Stakeholders in these settings may feel confined or controlled by corporate and political forces of production. This is a result of the monetization of these spaces, which dates back to the mid-twentieth century (Khan,

2009). The public sphere withdrew into a shell, owing to monopoly over radio, television and print media. This facilitated top-down delivery of information to the masses. Intimate discussions became more influenced by cultural production (Chavalarias, 2016; Habermas, 1989), limiting what is "politically correct", and possible outcomes of free discourse. Hegemony calls for *alternative lifeworlds* seemingly detached from political and economic production. The Internet adds flesh to the idea of these spaces, owing to its capacity to connect individuals across physical and ethnic boundaries with great ease.

It can, however, be difficult to create spaces completely detached from cultural production on the modern Internet, which is ruled by recommendation systems, and the tropes of popular culture. But, in spaces (like classrooms) where the bounds of civility are mapped (Crosby, 2018), interactions can be regulated, and new ideas could be encouraged, the possibility for meaningful interactions related to pressing social issues becomes more likely. Educational spaces that use technology should allow opportunities for non-hierarchical, distributed, agency laden deliberation (Glassman, 2016). The larger transactional distance (Moore, 1993) in distance learning environments highlights the increased need for this agency in learning.

Using platforms/methods for both content delivery and non-hierarchical social engagement can help students exercise communicative rationality (Habermas, 1989). Education has pronounced effects on the ideologies powering every social context it is a part of. It is no surprise that the public sphere and how we educate, whether physically, or online, are related. Creating democratic educational environments (Dewey, 1916) is imperative in a postmodern world, where the truth is multifaceted, but must lie within the

bounds of critical thinking to avoid chaos and disharmony. In the Information Age, using technology as a mediating tool (Vygotsky, 1978; Engeström, 1987) to navigate this postmodern truth with others adds new promise to the purpose of the Internet (Rheingold, 2008).

We suggest that using platforms allowing democratic communication, as well as opportunities to actively cognize knowledge at the individual level, should be a primary goal of distance education. Currently, distance education is largely driven towards simple content delivery to a large number of learners, and this helps understand impediments in achieving communicative rationality and shared agency among users (Tait, 1989). Just as corporate-sponsored instrumental control treats consumers as passive recipients of knowledge (von Foerster, 1984), distance education tools sometimes show scarce opportunities for free ideological exchange, often treating learners as passive (Tait, 1989; Peters, 2002). This scarcity of platforms allowing asynchronous and synchronous non-hierarchical interactions between students calls to question the following: Should distance educators use technology-providing ideas within result-oriented frameworks, or should they also create possibilities for non-hierarchical learning, user-driven communities, and balanced discourse? We believe that the latter may enhance the collective and individual agency and democratic trajectory of social groups within distance-learning communities (as suggested by Dewey and Habermas). Shared learning approaches can allow educators to facilitate balanced ideological outcomes from classroom discourse, and create change, by extension, in the larger public sphere (Dewey, 1916).

In the next sections of this paper, we will outline how the Internet can be looked at through varied lenses that either revolve around using technology to exert control over the masses, or around encouraging interactions that can be detached (to some extent) from authority. This will provide context to discuss the idea of modern distance education as industrialized, offering knowledge as a product rather than allowing for processes leading to knowledge creation. Our aim is to suggest platforms that could be used to achieve a distance education that adopts a participatory flavor, while keeping within the bounds of civility.

Top-down control and first-order cybernetics

There has been a struggle between top-down dominance and open communication from the earliest rumblings of the Internet (Glassman, 2019a). When cyberspace emerged as a realm offering opportunities for shared activity, it showed promise towards adding new dimensions to the achievement of participatory democracy. Indeed, much cyberpunk literature is based in the chaotic breakdown of hegemony (Glassman, 2016). Witnessing the rise of Internet controlling conglomerates, Habermas (2006) warned that the Internet could also fragment the public sphere through specific interest groups influencing public opinion. The fast-paced monetization of the Internet by forces controlling businesses and media outlets is a possible cause of said fragmentation. Long before social media, Ivan Illich (1983) spoke of how computer-mediated communication could become a product rather than a process encouraging discourse. The Internet has been increasingly seen as facilitating top-down commerce, or the long-tail (Anderson, 2006) - a statistical curve

illustrating how digital platforms with infinite commodities function better than local networks with limited goods. This led to mass-selling and molding public opinion about products, with little concern for meeting specialized needs.

These arguments are explained by von Foerster's (1984) theorem, which states that developing rigid ties between members of a community makes it easy for powerful interlocutors to manipulate its members. Trivial rather than emergent ties create surface communities where individuals have shared purpose because they obtain the same information, but little agency to provide critique. Habermas' (1989) idea of hegemonic control, which speaks of the atrophication of the public sphere in response to media is analogous to first-order cybernetics, which involves looking at communities from the outside, and understanding how to exercise control over them. Business interests often use the Internet to create wide, shallow communities using algorithmic techniques to establish control.

For instance, Apple, as a company, creates tangible products, and uses recommendation systems and advertising (technological implements) to create communities of "Apple users". Connections in the Apple community are formed by the trivial act of using Apple products, rather than on the process of talking about these products or developing new insights about them. Apple frequently does large-scale product releases. The most important activity for (some) community members is to obtain these products. Social influence created by marketing campaigns is essentially preferences that are mined by these corporations as big data. This influence trivializes

social interactions by molding discussions within smaller lifeworlds, making it easier for corporate bodies to predict consumer behavior.

Game theory and algorithms are often used by Internet-based organizations like Facebook and Google (which emerged as platforms to open up knowledge, but became highly monetized) to manipulate user preference, mine user data, and have been utilized by political bodies to make policy decisions. Even universities integrate technology products and strategies propagated by companies like Pearson into their curriculum. Distance education commonly makes use of MOOCS's and Learning Management Systems. While these platforms have the potential to allow multichannel communication, their use in distance education is sometimes limited to facilitating timely content delivery to a large number of students (Carver & Harrison, 2013), while creating largely porous social networks between them (Bozkurt & Keefer, 2017), rather than creating emergent interactions.

While students can have the option to cognize knowledge from different levels of difficulty on their own timeline (Väljataga & Laanpere, 2010) in distance classrooms, they are often limited from diversifying these ideas with other students through seamless social processes. Administrators, instructors and students see their community as united through generalized products rather than through processes of communication opened up by these products. Educational initiatives respond to the evolution of dominant ideologies/products (those propagated by Pearson are an example) rather than the needs of students within specific sociostructural contexts (Bandura, 2000). Human agency becomes centered around these products rather than processes of exchanging knowledge.

The fact that large technology companies have been able to trivialize social ties suggests that Habermas (2006) had good reason to fear fragmentation through Internet activity. We argue that this is a restricted vision of the Internet and, by extension, distance education, that does not take into account possibilities that have existed since its inception.

The Internet as a provider of varied lifeworlds

A mistake people make with the Internet is treating it as monolithic. Large organizations use the Internet to meet their agendas but are not the Internet itself (Glassman, 2019b). We believe that cyberspace is becoming more diverse by the click. Post-modern platforms can allow individuals to create virtual salons, somewhat detached from cultural production (much as cyberpunk predicted). Twitter sways public opinion through trends from bottom-up connections, allowing users to express ideas about popular culture and society. Reddit creates non-hierarchical problem-solving groups by matching peers with similar interests, and encourages non-hierarchical community development and problem-solving. Communication sites on TOR (The Onion Router) can protect people from socio-historical consequences covertly/overtly controlling their activities. A Multi-User Virtual Environment (MUVE) like Second Life can welcome users in to open-ended/semi-open-ended worlds for exploration.

While these spaces allow individuals to act as free agents engaging in a process rather than consuming a product, they are moderated by loose guidelines for civility, that can culminate in online harassment. Sometimes, interactions on these platforms can also

be influenced by external power systems (political interests, for example), but even these ideas can be critical. Since civility is a major concern in open online forums, we acknowledge that these platforms can exhibit both meaningful as well as uncivil interactions. However, we suggest that capturing the purpose of participatory platforms in classrooms, where harmonious interactions (Crosby, 2018) can be regulated for both students and instructors, could show a different promise.

The battle between open and closed cybernetic spaces seems to be a recurring motif, giving the Internet a chameleon-like identity. It might be in our best interests to view the Internet as providing at least two (sometimes overlapping) arenas of cyberspace, even with regards to how we use it to educate. The first is a modern web or *first order Internet*, where lifeworlds are controlled by business interests, and powerful interlocutors observing society from the outside (based on first-order cybernetics). The second is a post-modern web, where private lifeworlds can be controlled by users- which we will refer to as the *second order Internet*. This *second order Internet* relies on second-order cybernetics, rooted in discursive knowledge creation and non-hierarchical interactions (Bateson, 1972).

The hope associated with the *second order Internet*

Habermasians like Dahlberg (1998) and Poster (1997) expressed hopes for a post-modern Internet, suggesting its potential to be an "electronic agora" enabling ideological exchange. On the *second order Internet,* technology functions like a prosthesis that may help overcome limitations of the physical world, if used with agency (Glassman, 2012).

The links formed between learners and online spaces are based on unwritten social agreements (Illich, 1971), strengthened when individuals move between digital lifeworlds. These webs create new perspectives by matching peers with similar interests (e.g. Reddit) and providing easily accessible references for students to apply to their own academic inquiries (e.g., Open Educational Resources) (Glassman, 2016). According to Fals-Borda (1991), participatory environments are concerned with requirements of individuals rather than larger systems of control. However, the spontaneous nature of social agreements in these environments may impede the process of developing a critical understanding, due to uncivility or distraction from on-task behavior. There needs to be a balance between sticking within infrastructures that moderate user behavior, and providing unprecedented autonomy.

In environments where both staying on-task, and engaging in serendipitous social exchanges are both encouraged, individual and collective agency can become valuable assets to improving online experiences. This balance can help encourage communicative rationality (Habermas, 1989) through participatory action in these environments. Since civility and on-task behavior can be moderated in educational settings by instructors, we assert that democratic Internet platforms can be operationalized in digital classrooms to heighten agency in learning . Adopting second-order cybernetic frameworks can help students help one another reach an ecology of Mind (Bateson, 1972).

Mind is a zig-zag ladder of dialectics leading towards an abstract truth (we are always in the process of adaptation and discovery). The tautology of things becomes complex as we adapt our knowledge (Bateson, 1979). What we perceive individually is

an infinitesimally small part of the grand design that we incrementally move towards, but may never achieve. The *second order Internet* operationalizes social capacities of human beings to access this dialectical ladder and climb towards Mind, by engaging in the 'ideal speech situations' (with each interlocutor contributing their own skills) that Habermas (1970) deems as the building blocks of civil discourse. The social undertones of second-order cybernetics and communicative rationality align with Dewey's (1916) idea of creating new knowledge through collective deliberation, and thus, these spaces are inherently democratic. However, the encouragement of all possible viewpoints is a process that needs to be carried out carefully, to avoid the chaotic breakdown of any social environment. Educational settings make this careful execution of 'ideal speech situations' possible.

While deliberative platforms do find use in blended classrooms, their use in distance education is scarce (Tait, 1989; Peters, 2002). In the next section of this paper, we will outline the current practices in distance classrooms, and suggest platforms and curricula that can contribute towards a *second order Internet* approach to distance education.

Chapter 2. Implementing a Habermasian Distance Education

Instrumental rationality in current distance education

Whether in traditional lecture-based classrooms that are more content heavy, or in large distance education classes, socially defined education experts (think-tanks, foundations, universities) promote educational solutions (standardized testing, corporatized charter schools), passed down to local administrators, who interpret them and pass them down to teachers. Teachers serve as experts (Freire & Faundez, 1989; McLaren, 2000), who help achieve fixed outcomes. Students become passive learners (the emphasis on "critical thinking" can be a misnomer, and in any case is often unsuccessful), and opportunities for communicative rationality is scant (Lange, 2015). This funnel of information delivery is sometimes seen in distance education, making it take on an industrialized form (Keegan, 1986; Peters, 2002).

Modern distance education has been defined as using technical media (audio, video, text) to provide content rather than incrementally create distributed understanding of complex ecologies (Tait, 1989). Top-down information funnels in distance classrooms can limit ideological outcomes, and reflect Illich's fears about systemic control over media portals (Glassman, 2019a). This is similar to Postman's (1985) fears about television, resulting from its use by political parties to infiltrate smaller lifeworlds and mold public opinion. Powerful interlocutors often use media to generate fear about its powers, while also using it to influence society to do their bidding (Seiter, 2002). Encouraging media literacy among teachers can allow users to develop understandings of media like the Internet beyond perceiving it as a "manipulating force" (Cormier, 2018;

Kellner & Share, 2007). It can help in guiding student progress using technology as a tool for expanding and enhancing their thinking. This is the first step towards enabling students to use the Internet to develop deliberative tendencies.

In most current distance education practices, content heavy lectures, largely direct two-way communication between instructor and individual student, and limited capacity for non-hierarchical social interactions creates rigid ties (if any) between students (Clarà & Barberà, 2013). The scarcity of open communication is even more pervasive in distance education due to transactional distance (Moore,1993). Social presence (Lowenthal & Snelson, 2017) can become a byproduct of interactions between mainly instructor and individual students. Lack of social interactions is often perceived as a barrier to student learning (Muilenburg & Berge, 2005), and a contributor to dropout rates and disconnection (Phirangee & Malec, 2017). Tait (1989) laments the creation of environments like these, where students "should not meet", as opposed to co-constructing knowledge across spatial boundaries.

Students in distance education often learn in generalized, top-down instruction models where cognizing and reproducing content is the main focus. However, they are less likely to use cognized knowledge, that has merely been processed rather than constructed with other stakeholders, to create meaningful change in their environments. Students thus become passive learners who are fed knowledge. This is analogous to consumers who obtain the products they want (Amazon), the rides they need (Uber) and entertainment to fill their time (Netflix) as a result of the corporatization of the Internet. The danger of the *first order Internet* is in its success in sustaining trivial communities of

practice. Corporate interests use trivial ties to control human behavior (buy from Amazon not Walmart, buy Apple[1] not Samsung) rather than expanding it. As Dewey (1958) might say, there is controlled movement of human activity but it does not encourage human progress. This notion highlights the limitations of industrialized distance education (Garrison & Shale, 2009; Mackenzie, Postgate, & Scupham, 1975).

Rather than adopting processes of the corporatized *first order Internet,* distance education should make a commitment to the *second order Internet* and development of thinking through evolving, non-hierarchical communities, or alternative lifeworlds. We examine how integrating these curricula and platforms into distance education can open up possibilities to encourage communicative rationality free from systemic control.

Implementing the distance education of the *second order Internet*

We suggest that the focus of distance education should shift towards creating alternative digital lifeworlds allowing students to voluntarily learn and express their thoughts through non-hierarchical social processes. We believe that this will help students and instructors move towards a critical consciousness, by providing opportunities to engage with content directly, and co-construct new knowledge through ideal speech situations (Habermas, 1970) within the realms of civil discourse. While currently dominant practices mainly encourage instrumental rationality, we suggest that encouraging open communication, in tandem with opportunities for direct instruction can

[1] Habermas might see dangers in Apple's incursion on college campuses. While these types of initiatives might help on a trivial level (dissemination of general information) it also creates walled in communities of Apple users.

encourage students to exercise different kinds of competence in the distance classroom. When agency is targeted towards common goals, it makes learning a more meaningful process. Creating open, online learning communities can provide new hope to distance education to move beyond only efficiency encouraged by strictly scaffolded (Bruner, 1978), and also allow serendipitous communicative action (Habermas, 1989) in the quest to master subject matter, and use knowledge to control one's immediate environment using everyday and instructional knowledge (Vygotsky, 1978).

To give effect to this idea, we outline three approaches to developing a critical educational framework (drawing on second-order cybernetics) for Internet-infused education, combining curricula and platforms. The first is a rhizomatic approach for connectivist MOOCs (Cormier, 2018). The second is the trialogical approach, which combines third-generation activity theory with top-down developmental platforms (Paavola & Hakkarainen, 2014). The third is an Open Source Educational Processes (Glassman, 2016) approach employed using Multi-User Virtual Environments and blogging.

Rhizomatic learning and hybrid MOOCs

MOOCs (Massive Open Online Courses) are commonly used in distance education environments, and are represented by three types. xMOOCs (extended MOOCs) deliver information to students in a one-way funnel, and may allow two-way communication between learners and instructors, thus limiting creation of varied ideologies from discourse. cMOOCs, or connectivist MOOCs, are less dependent on trivial ties (e.g. expert-driven discourse) and help form links and webs between learners

located beyond proximal spatial boundaries (Siemens, 2012). While connectivist MOOC's do offer opportunities to discursively create knowledge, the autonomy of students in these MOOC's needs to be moderated to some extent through some teacher-driven infrastructure to ensure on-task behavior, and operation of the MOOC within the bounds of civil discourse. This balance between serendipity and structure can ensure fair, democratic discourse within the distance learning environment towards a common goal (Bozkurt & Keefer, 2017).

A "third generation" of MOOCs (hybrid or dual-layered) embraces both the connectivist and extended approaches (Bozkurt & Aydın, 2015) and strives to achieve this balance. These hybrid MOOCs employ Cormier's (2011) rhizomatic framework which suggests that learning on the internet is gradual and associated with both top-down and democratic processes (Cormier, 2018). Cormier calls his learning environments rhizomes due to their tendency to be open-ended, much like the growth of the stem of a plant. Hybrid MOOCs can allow learners to voluntarily participate in different kinds of learning that interest them. They become more likely to gain benefits from both direct instruction that acts as a scaffold to heighten competence in a specific task laid out by an expert (stronger scientific concepts) (Bruner, 1978), and understand these concepts through the lens of everyday thinking (Vygotsky, 1978) via community interactions. Bozkurt and Keefer (2017) developed a hybrid MOOC, wherein the cMOOC part involved using blogs and Twitter feeds to create a learning community, while the xMOOC involved top-down instruction on key concepts. The open-ended cMOOC required community interaction to reach collectively developed goals, and maintain the

hashtag, #HumanMOOC. Findings revealed that a combination of extrinsically driven top-down processes, and communicative processes benefits learners by giving varied ways to engage with knowledge.

A learning continuum where learners listen and process information, and understand how to contribute to discussions gives learners both individual and collective agency (Bozkurt & Keefer, 2017). They enter the rhizome as nomads, and emerge skilled travelers who thrive using the webs and links of the *second order Internet*. Hybrid practices keep reflective discussions focused, while also allowing learners to wander the rhizome. Hybrid environments can help create both Communities of Inquiry (Garrison, Anderson, & Archer, 2001) and Practice (Lave & Wenger, 1991). This allows learners to learn based on the personal stances they hold about education (Cormier, 2018) while maintaining ties to expert-driven knowledge to be accessed when needed. The top-down knowledge dissemination is not so much for control as for creating a space for those hesitant about exploring available alternative lifeworlds until they are ready to participate in communicative processes, or even play devil's advocate.

Cormier's rhizomes embody Deweyian philosophy such that they are largely open-ended frameworks. The freedom of choice between social and top-down learning processes comes at the expense of certainty (i.e., setting rigid goals), which can be liberating for learners and instructors, as they take charge of the goals of the community together. As multiple individuals reify their own evolving knowledge systems and create common languages within the Rhizome, they transform their thinking, while also responding to traditional top-down processes (Cormier, 2018). Learners discursively

climb the dialectical ladder towards Bateson's (1972) Mind while also developing their individual thinking. When the learning community takes control of educative processes in the rhizome, it creates an online learning environment more dependent on the new availabilities offered by the *second order Internet.*

This being said, it is necessary to look into whether MOOC's are inherently democratic, despite the ways in which platforms/curricula can be designed to increase this potential. The "m" or massive in MOOC is what indicates the capacity for large enrolments (Carver & Harrison, 2013). As Cormier, who helped coin the term MOOC suggests, the idea of the massive course can only be understood once it is seen in action. The initial implementation of the idea of the MOOC highlights the importance of complex interactions between massive groups of diverse people, and stresses the role of the community in developing agency and massive enrolments. The lack of assignments in these open courses also combated the fear of falling behind (Bali, 2014). The intent behind this is novel, in the sense that it creates large swathes of learner agency. With time, the massive course has come to be associated with the search for a sustainable business model for MOOC's that offsets costs for participants within and outside the borders of a brick and mortar institution (Carver & Harrison, 2013). By falling prey to large-scale industrialization, the idea of the MOOC becomes less democratic, and less focused on meeting individualized needs; standardization of content becomes imminent.

While Bozkurt and Keefer (2017) assert the benefits of a hybrid MOOC, they also note that the social network analyses exhibited extremely porous boundaries in social interactions that were hard to define, highlighting the impediments associated with

creating meaningful and sustained discursive knowledge in these environments. This makes the capacity for MOOC's to reach and elicit diverse ideas from students across proximal boundaries doubtful (Bennett & Kent, 2017). Moreover, difficulties with mapping and ensuring meaningful social interactions in these massive environments can make the gap between those within and outside universities even more pervasive.

Perhaps the idea of a hybrid, open-ended MOOC can show results that allow more meaningful communicative action if offered by a university as an open course with a more modest class size. This may contribute to less porous and more sustained social interactions and knowledge creation between those from within and outside a brick and mortar system. Therefore, while open-ended and massive open courses may offer wide access, the idea of an open course at a smaller scale may produce better if not the same results.

While the idea of the "massive" course may call to question the possibility to encourage meaningful communicative rationality across such a large class, the use of hybrid practices in modestly sized online environments shows promise for Habermas' vision for the public sphere applied to distance learning spaces. Rhizomatic approaches allow students to use the platforms integrated into the learning environment to guide their agency in different ways. The open-ended nature of the rhizome allows students to cognize knowledge from top-down instruction, and then explore the rhizome (in this case, #HumanMOOC) to develop the competence for communicative rationality, which occurs through a connection of instructional and everyday knowledge (Vygotsky 1978). They can then exchange this knowledge with their peers and the instructor. In essence, the way

Cormier's (2018) framework is designed provides a foundation for communicative rationality between learners, as well as structured instructional processes, the combination of which may be able to produce higher order learning when carried out at a smaller scale.

The Trialogical approach to discursive knowledge creation

The Trialogical approach transcends boundaries between individualistic (monological) and collective (dialogical) learning, and assumes that cooperative processes lead to personal transformation (Ritella & Hakkarainen, 2012). The foundation for trialogical learning comes from activity theory with its emphasis on conflict and recreation of thinking systems across individuals and organizations (Engeström, 1987). There are 6 design principles (DPs) that serve as outlines for the trialogical approach (Paavola, Lakkala, Muukkonen, Kosonen, & Karlgren, K. 2011) (Table 1).

Table 1

Six Design Principles of a Trialogical Learning Environment (Paavola et al., 2011).

S. No.	Design Principle
DP 1	Artifacts form foci for knowledge creation (e.g. works of art, data visualizations)
DP 2	Allowing integration of collective, individual agency through data visualizations.
DP 3	Advancement of knowledge with shared objects using incremental practices.

DP 4	Ensuring reflection and perspective transformation through engagement with digital artifacts, peers.
DP 5	Cross-pollination between educational environment and real world (e.g. Design assignments or advertising assignments that can serve clients)
DP6	Computer mediated technology tools that allow transformation of abstract ideas into cultural objects inconceivable in physical classrooms.

The basis of a trialogical online classroom (DP1) is the creation of shared knowledge around "objects", which can be made from pieces of knowledge or links, wikis, or field notes from a student in the classroom. By combining their "pieces" together through data visualizations, students can develop collective agency and work their way towards creating new knowledge. In this process (DP2), they develop both individual and community-based understandings of content through the different ways of viewing the data that the classroom has access to. Reflecting on the data that the class shares (DP3) allows the process of knowledge creation to occur. The classroom needs to develop shared goals and keep up sustained efforts (DP4) to use knowledge from digital artefacts to figure out how to control their environments. The idea of cross-pollination (DP5) involves students understanding how their work applies to the industry, or to academia, if they aspire to be scientists someday. The environment needs to be built

around a platform (DP6) that allows students to engage with technology to change their thinking through deliberation.

Computer-mediated trialogical environments can be used to reimagine place-based concepts as digital objects in ways that may not be possible in traditional direct/video instruction/lecture-based processes (Miettinen, 2006). The trialogical approach offers a framework guided by principles, but the application of these principles to domain-specific contexts renders them subjective. This means that implementing design principles can sometimes be a demanding task relying on joint effort (between learners and instructors) to understand how the learning environment is to be built.

An example of a trialogical environment is the KP lab project. The central module of the KP-lab project is the Knowledge Practices Environment (Lakkala, Paavola, Kosonen, Muukkonen, Bauters, & Markkanen, 2009), which allows flexible concept representation from different viewpoints; the Process view, Content View and Community View. This enables students to understand how their peers connected electronic media and scholarly work to concepts covered in class, and also manipulate cooperatively made artifacts (Paavola, Lakkala, Muukkonen, Kosonen, & Karlgren, 2011), allowing for the emergence of individual thinking that can coalesce in community knowledge systems (Scardamalia & Bereiter, 2003).

Paavola and Hakkarainen (2014) offer a framework for the application of the trialogical approach to learning in an online Educational Psychology class that integrates field activity and online artifacts with top-down learning materials. Materials recorded from the field (interviews, photographs, recordings) are shared in a database that students

have mobile access to, and work on organizing into data visualizations collectively and individually. Mediation forms the basis of human activity in these environments (Engeström, 1987) (Table 2).

Table 2

Four Types of Mediation Based on the Knowledge Practices Environment (Lakkala et al., 2009).

Type of Mediation	Description
Epistemic mediation	Working with artefacts to build knowing.
Pragmatic mediation	Organizing collaborative processes, creating belongingness.
Social mediation	Cooperative interactions around shared objects.
Reflective mediation	Making collective knowledge available, allowing learners to freely transform it.

The trialogical approach considers the mind as a container for new knowledge (knowledge acquisition-metaphor), and also requires learners to familiarize themselves with emergent community (participation-metaphor) to move forward as individuals and as a group. Dynamic artifacts created from learning and participation (or, the Knowledge-creation metaphor) represent individual and collective motivations (Hakkarainen & Paavola, 2009). Trialogical learning expands outward (Engeström, 1987) from cultural objects spatially (artefacts are linked to real contexts), temporally (encouraging learners

to use experiences intersubjectively), and epistemically (encouraging crossroads between cultural, professional and academic knowledge).

Artifacts form the center of interactions in trialogical environments, and knowledge created by working (individually and collectively) on these artifacts becomes useful to both students (to keep up to date) and teachers (to evaluate learning, construct new activities). Individuals in these learning communities acquire instrumental knowledge from traditional knowledge sources (teacher-driven), but use the Knowledge Practices Forum to externalize this individual knowledge, and share it with the community. This facilitates the process of communicative action, as multiple learners, who view classroom knowledge at the community and individual level begin to reify knowledge. Trialogical learning spaces provide alternative lifeworlds powered by cooperative creation of ideas by both students and instructors. They emphasize both structure, and serendipitous speech situations where every student has the chance to express his or her own ideologies. Through activity mediated by artefacts, the fluidity between instructional concepts and everyday social processes can be increased by providing opportunities to engage in shared activity towards common goals. These processes can encourage Habermas' communicative rationality in online learning spaces.

Open Source Educational Practices applied to blogging platforms and MUVEs

Open Source practices originally emerged from source-code restrictions placed on programmers when the Internet was made public (Glassman, Bartholomew, & Jones, 2011) (today, practices similar to these are observed on platforms like Github). Open

Source knowledge involves collective access and open use of ideas so that creators retain credit while communities and individuals continue to build on evolving information. Open Source Educational Processes (OSEP) proposes frameworks merging Open Source principles with learning theories focusing on participatory, non-hierarchical approaches to learning (e.g. Dewey, Vygotsky) (Glassman, 2016). The platform or application being used in an OSEP initiative is not as important as the design of a curriculum integrating these principles with concomitant learning theories/principles. For example, integrating blogging into a classroom using OSEP (where students are given ownership of their postings/commenting behaviors in creating a learning community) can enable lateral communication. Students can develop their own narratives through a dialectical relationship between their everyday concepts and the reflection on what they learn in class (Glassman & Burbridge, 2014). Students can take ownership and responsibility for their communications, respect, listen and respond to each other, move away from the instructor as a titular leader, and towards co-construction of new knowledge. In essence, the blog becomes a salon for class related ideas rather than an assignment (Glassman, 2016).

A limitation associated with using blogs in a top-down classroom is it may be difficult for students to break away from teacher direction and treat these spaces as an open bazaar of ideas (Kuznetcova & Glassman, in press). A Multi-User Virtual Environment provides this capacity. Instant messaging and pre-programmed non-verbal cues can be used by avatars or 3D projections created by users (Kuznetcova, Teeple, & Glassman, 2018; Salmon, 2009). Modifiable digital artifacts form focal points for

discussion (Edirisingha, Salmon, & Nie, 2009). MUVEs can be used as a mid-step, creating a new type of open space between blogging environment and top-down instruction (Kuznetcova, Glassman, & Lin, 2019).

MUVEs pose few barriers to integrate individuals into learning communities (Bainbridge, 2007). They act as a virtual sandbox that adapt to learner needs, and help create challenging tasks to be completed within the virtual world (Mascitti, Fasciani, & Stefanellil, 2012). Problem-based approaches in MUVEs (Kluge & Riley, 2008) can facilitate distributed cognition (Dieterle & Clarke, 2009; Kuznetcova, Glassman, & Lin, 2019). The MUVE becomes a vehicle to communicative rationality, and the development of new knowledge through collective processes that can be expressed on the blogs. Returning to our example at the beginning of the paper in describing the creative salons of early 20th century Paris described by Hemingway, many thinkers cultivated ideas in personal sandboxes (studios, writing workshops) which were brought to group discussions, creating democratic exchange.

Adding MUVEs into Internet infused classrooms (offering open-ended discussion) can enable students to experiment with ideas and share their insights to create new knowledge. Educators sometimes need to exercise caution when offering spaces where students are able to explore ideas on their own. High autonomy may lead to a "micro-rebellion" due to the propensity to externalize strong emotions through online identities (Kuznetcova & Glassman, in press).

A hybrid approach incorporating top-down instruction and blogging can moderate these conflicts, by balancing autonomy and types of agency that students have within the

classroom. MUVEs allow learners to navigate different lifeworlds (that may resemble different cultures/subcultures) to create new information. Learners interact with other users in these isolated pockets or islands, linked to the rest of the open world through the capacity for teleportation. In blended classrooms using other platforms such as blogging, MUVE's become a secluded space allowing learners to engage in spontaneous communicative activity (Habermas, 1989) that helps them view the concepts they have learnt in the classroom through the lens of their own experiences, and those of others (Vygotsky, 1978). This inspires students to understand that classroom ideologies can be viewed through different lenses, and allows them to critique their own and their peers' ideas as narratives on a blogging platform. Therefore, the MUVE provides an avenue to create ideological exchanges and critical discourse where every agent, whether student or instructor, is an equal stakeholder. Each agent participates in creating Mind (Bateson, 1972) which in some way, is a process towards a higher objectivity. Moreover, these alternative lifeworlds are somewhat secluded from larger agendas, allowing users to engage in civil discourse, and develop their thinking outside traditional boundaries. A hybrid approach to using MUVE's can thus embrace a *second order Internet* by encouraging learners to discursively create new knowledge, while also avoiding the possibility fo\r a chaotic breakdown of the learning environment.

Chapter 4. Conclusion

The initial critique of governments, organizations, education is in many cases the easier part of critical theory. This is a theme that runs from Dewey, to Illich, to Habermas, to Freire, and beyond. The dilemma we often struggle with is creating real circumstances that allow individuals to flourish; to claim ownership over their lives. The Internet offers tools that can provide new avenues for such processes. The Internet's greatest asset may also lead to its greatest dangers: it is made up of individual users with direct (individual and collective) connections to others. To illustrate the possibilities and dangers the Internet presents, and how it can lead to different, sometimes diametrically opposed human outcomes, we suggest there is not a single Internet, but multiple Internets that we must be aware of every time we use platforms and applications to achieve an end.

The *first order Internet* shows how tools used for control link (sometimes) large groups of users through trivial ties (buying the same product). This creates passive recipients of information easily manipulated by those controlling sources of top-down information dissemination. This can lead to Habermas' greatest fear of the Internet; the fragmentation of groups and solidification of boundaries that limit communicative action. We argue this is increasingly true when considering distance education. In current practices, initiatives often tend to mirror larger patterns of the *first order Internet* by creating learning communities held together by trivial ties and solely expert-driven knowledge.

The Internet can create non-hierarchical communities for open-ended exploration, that fulfill Habermas' vision of communicative discourse, liberated from forces (e.g.

large corporations) looking to manipulate behavior through the *first order Internet*. These alternative lifeworlds can serve as both engines and arenas of change and critique, but even with the tools of the *second order Internet* to support and enhance initiatives, this is the difficult part of critique. There are dangers even in creating these alternatives, open lifeworlds where control is in the hands of users. Education may possibly be the only safe vehicle for re-orienting users to take advantage of these new possibilities productively (Glassman, 2019b).

In this paper we examine some work currently being done in education that highlights promise of alternative lifeworlds. We know that there is a lot of similar work being done in different corners of education. We provide a think-piece to indicate what sort of programs and platforms could work based on our critique. Our suggestions revolve mostly around creating "alternative lifeworlds" in distance education classrooms to allow non-hierarchical, multichannel communication between instructors and peers. In the realm of research, investigating the idea of collaboration, and what it means to engage in non-trivial interactions to create knowledge with others could shed insights into the types of activities to be designed in online spaces. Measuring the quality of debate in distance classrooms using deliberative, democratic methods along with variables like collective efficacy (Bandura, 2000) could produce robust understandings of the effects of discursive learning environments as well as content-heavy, online classes of the *first order Internet*.

Covering the grounds of critique, empirical research, and practice in the study of education can produce new pedagogy, and new ways to understand student learning.

Investigating “alternative lifeworlds” that *second order Internet* platforms can offer to education may eventually lead us to communicative discourse and critical consciousness, with each instructor fighting against the tide of the corporatization of education, engaging in a two-step critique; first recognizing dangers to human progress, and then finding ways to turn these into possibilities that may be hard to achieve in the physical classroom.

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