

Jiddu Krishnamurti and John Dewey in the Metaverse:

Education and Experience in an Age of Virtuality

The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative.

– John Dewey

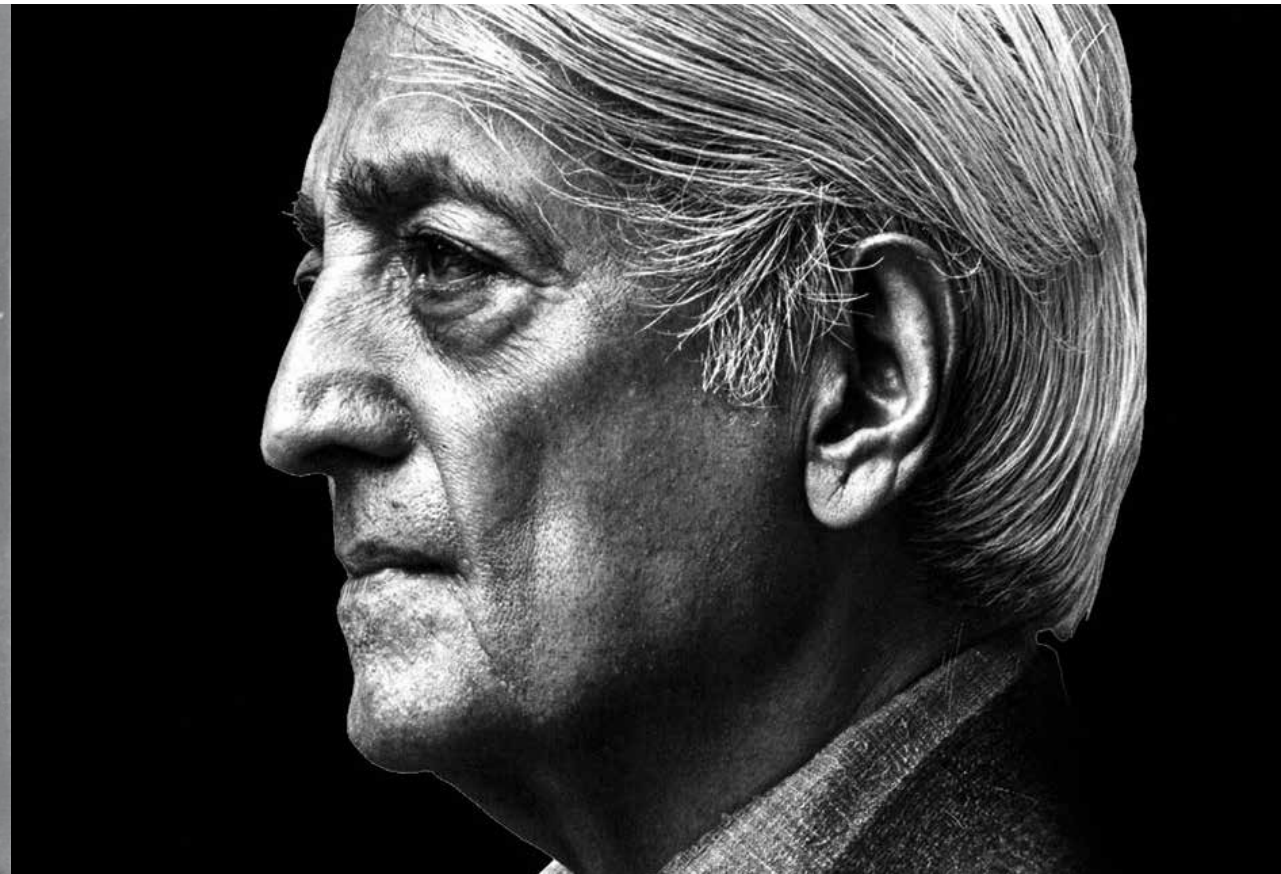
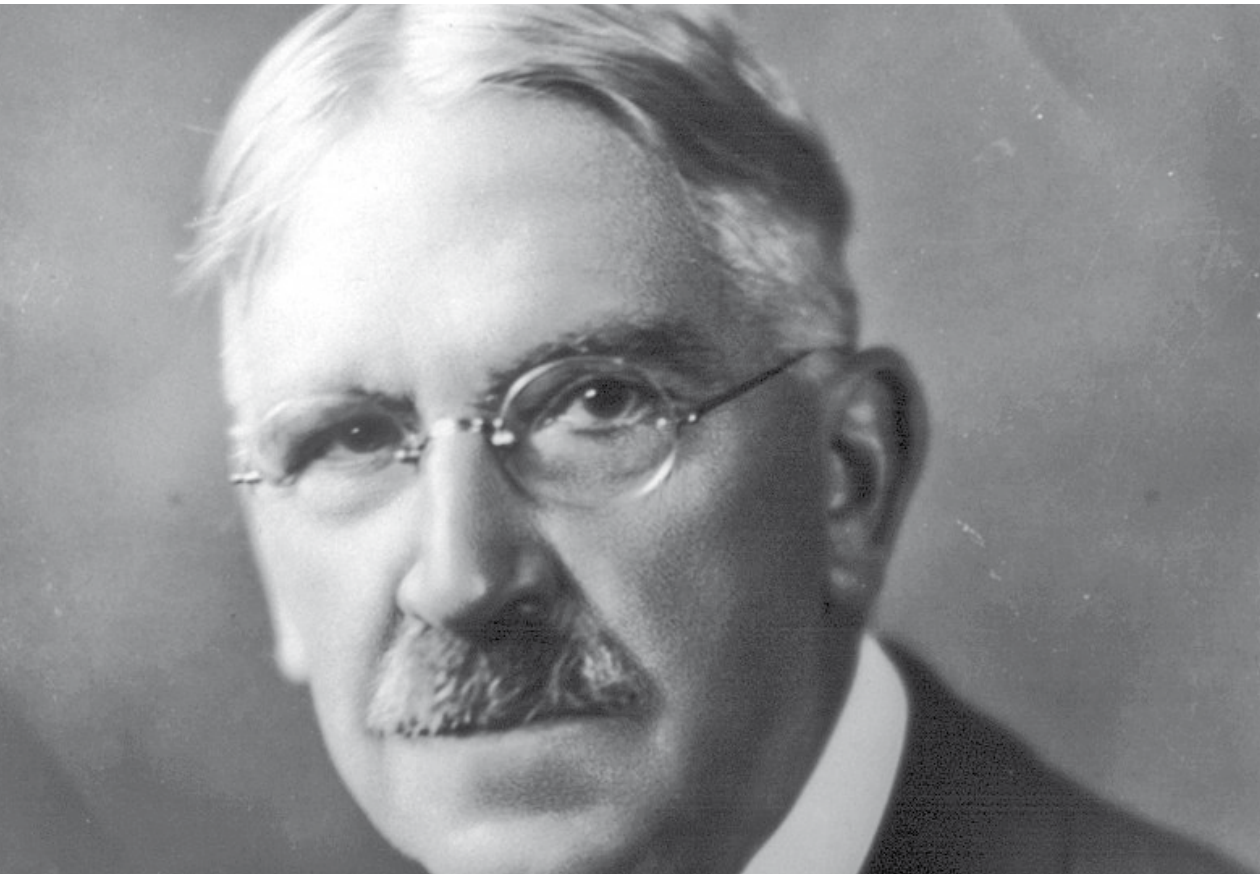
What do we learn from experience?
We learn things like languages, agriculture, manners, going to the moon, medicine, mathematics. But have we learnt about war through making war? ...You may build a better house, but has experience taught you how to live more nobly inside it?

– Jiddu Krishnamurti

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Introduction

What will learning look like in the future? This becomes particularly important given the transformative changes we are experiencing currently, from the forces of globalization and climate change, increasing fundamentalism, tribalism, and economic disparity, and last and surely not the least, dramatic advances in digital and networking technologies. In this paper we focus on the last of these factors, specifically the possible impact of these technologies on education, even while recognizing that technology is just one of many factors that influence education and learning. We seek to better understand how we, as educators, look at these changes to best design powerful educational experiences for learners. In other words, our question is this: what does education mean in a world where our experiences are increasingly mediated by technological systems? Our goal in this paper is to broadly explore these issues, and possibly raise more questions than provide definitive answers.

Responding to this question requires us to address two key foundational questions. First, what is the purpose (or purposes) of education? And second, given this, what is the best way for making learning happen? In addressing these questions, we build on the work of two key educational philosophers, Jiddu Krishnamurti (1895-1986) and John Dewey (1859 – 1952). Education and learning, of course, are “essentially contested concepts” with different answers depending on context, culture, and a range of other frames, but we believe that Krishnamurti and Dewey provide some insights about the value and meaning of education that are worth keeping in mind as we look to an increasingly technologically mediated future.

In the following section, we begin with a brief introduction to the philosophical ideas of Krishnamurti and Dewey and discuss their differences and similarities. We point out that while they approach the value of education somewhat differently, they both emphasize the importance of educative experiences as being critical for the social, intellectual, and spiritual development of the learner. Following this, we describe some of the broader technological trends that will influence our lives and learning in the future. With this as a foundation, we provide two vignettes, one from a real classroom and the other from a fully virtual experience to ground these relatively abstract ideas in a concrete manner. We use these examples to dig deeper into Dewey and Krishnamurti’s ideas exploring the strengths and limitations of virtuality, with a particular focus on what we gain and lose by going through these virtual experiences. Finally, we conclude with some thoughts and questions we as educators and citizens need to consider as we enter this undetermined future.

Introducing John Dewey and Jiddu Krishnamurti

John Dewey was an American philosopher who saw philosophy as not merely an intellectual pursuit, rather, that it be tied to action and experience. He was also an educator who emphasized experiential learning for a broader democratic education. Thus, the twin concerns of education and philosophy were a singular whole for Dewey, as he “sought to reconnect philosophy with the mission of education-for-living” (Hildebrand, 2018). Against the prevailing factory model of schooling that emphasized rote learning and was geared towards the job market, Dewey’s vision of education involved deep inquiry into and reflection on one’s experience with the world. Education had to be founded on democratic principles and applied for realizing democratic ideals, thus social interactions and relationships formed the basis of inquiry.

Jiddu Krishnamurti was an Indian philosopher deeply sensitive to the realities of the world – conflict, war, and the violence around us on an everyday interpersonal level. For him, the outer conflicts were symptomatic of our inner contradictions. Transforming existing conditions required revolutionizing the way we think, and how we relate to ourselves, others, and everything around us. And this revolution could be realized not by political means, but through education of an entirely different kind than what is typically practiced. Krishnamurti envisioned schools where teachers engage in self-inquiry, the relationship between teachers and students is the foundation for all learning, and education is the awakening of intelligence. Thus, for Krishnamurti too, education and philosophy were intertwined, as his “educational teachings ... are integrally woven into his thinking on life, world and humanity” (Seshadri, 2006).

At first glance, Dewey and Krishnamurti seem to talk about somewhat different things: Dewey as a pragmatist is concerned with democracy and the role of education in nurturing democratic citizens, while Krishnamurti talks of the religious mind. Yet the core of their critiques of education resonate with and complement each other. As Dewey (1933) points out, traditional education starts with prearranged curriculum that is derived from the expert’s knowledge of subject matter; these are then broken down into chunks of information disconnected from the child’s life and interests, thereby dulling the child’s capacity to act with intelligence. Intelligence, for Dewey, is a way of living (more than a capacity of the mind) that allows one to act with judgment and control, not with blind conformity. In comparison, for Krishnamurti (2015), intelligence is

beyond the intellect and helps us learn from the “whole movement of life,” of which intellect is only a small fragment. Intelligence helps us understand the limits of intellect. We find, in both Dewey and Krishnamurti, a critique of secondhand learning, from books, from conclusions made by others and passed on to the child in the name of education. Instead, both philosophers emphasize inquiry through direct observation, questioning, interaction, and reflection- through first-hand, immediate experiences.

For Dewey (1938), the answer lies in understanding the nature of educational experience, as intelligence can be developed by parents and educators through thoughtfully selected educational experiences. While educative experiences can be ordinary, not all experiences are educative, and it is important to understand this distinction. Firstly, educative experience has continuity, not in terms of chronological continuity, but as that which builds on previous experiences and modifies our attitudes and responses to future experiences, thus modifying their quality. Secondly, an educative experience involves interaction between the learner and the environment. Our very act or the experience of learning modifies the environment of learning, along with our attitudes and capacities towards future experiences. The role of the educator then becomes to create the conditions that enable educative experiences, drawing from the child’s surroundings. Educating therefore, is not about following a preset pattern (as happens in traditional schooling), rather the educator is sensitive and alert to the tendencies of the child, and this is emphasized by Krishnamurti (1981) as well.

The resonances between Krishnamurti and Dewey are profound and invite us to explore the kind of education that can lead to intelligent living. Given their emphasis on learning from experience, the question that arises relates to the nature of an educative experience in a world where most of our experiences are virtual or mediated. However, it is first worth understanding what these virtual and mediated experiences look like. What are their strengths and disadvantages, their potentials and risks? It is this we turn to next.

Living and learning in the age of mediated experiences

Before we discuss the contemporary digital age, we must understand that virtual reality is not entirely a new concept. Through stories, myths, or cave art, there has always been an aspect of humanity that has gone beyond the “real” of the here and now. Over time, particularly with the advent of new technologies of art and painting, writing and the printing press, telegraphy, radio, television

and now the internet, social media, our “mediated” existence has only grown in scale and capacity. It is staggering to realize that at this moment an estimated 4.3 billion people have access to smartphones worldwide, with some estimates suggesting that almost 90% of people will have access to smartphones by 2024. (We must point out that this number is greater than the number of people who have access to clean drinking water or hygienic toilets, which is a stark indictment of our social and economic priorities.)

Computing technology has become a vital part of human existence. Our work and personal lives are increasingly digital in nature—whether it be shopping online (where one can purchase anything from basic necessities to luxury goods) to working remotely in one’s pajamas. The internet has provided individuals with the means to connect with their loved ones, irrespective of their geographical location, fundamentally altering human engagement with the world. These technologies have also amplified other, not so positive tendencies, creating new wants and desires that we seek to fulfill with the click of a mouse, exacerbating existing social anxieties and creating new ones as we seek to find meaning through likes and reposts, continually distracting us from real concerns and issues. And thus desensitizing us making us manipulable by misinformation and disinformation. In addition, the Covid19 pandemic sped up the growth and access to these technologies and their use across the globe. At the same time, we are seeing the rise of new technologies such as augmented reality, virtual reality and Artificial Intelligence, broadening the range of our mediated existence.

One possible future is what has been called the metaverse—a virtual shared space that allows users to interact with a computer-generated environment and with each other through avatars or digital representations of themselves. In some versions, it is almost akin to a parallel world, an immersive and persistent space where people can engage in a variety of activities, such as gaming, socializing, and learning. It is not clear whether such a “world” will ever come to be, and how access to it will be distributed across the globe. That said, such a world is not outside of the realm of possibility. Thus a question that may have appeared to be science fiction can now actually be asked in seriousness—what will humanistic learning look like in such a world?

Two examples of learning

Before we consider this question, it may be useful to look at two specific examples of learning spaces today—one based

in the real world, that seeks to build on the ideas espoused by Krishnamurti and Dewey, and another entirely virtual experience. Dewey and Krishnamurti's ideas may seem somewhat abstract, even when applied to schools in the real world (let alone in virtual environments), questioning as they do basic assumptions of schooling, what has often been called the entrenched "grammar of schooling." The goal is thus to make concrete what may seem to be somewhat abstract through sharing two examples, one in a real classroom and another in a virtual environment to instantiate what these ideas may look like in real and virtual contexts.

Learning in the real world

Consider an introductory lesson on metals and nonmetals in a middle-school classroom, where the objective is to understand the properties of metals and non-metals. As the science teacher, Marina decided to do an experiment by dipping spoons made of different materials into boiling water. Instead of using a thermometer, the students had to touch the other end of the spoon for two seconds, and then note down their subjective observations through a ranking of how hot each item felt. Returning to the classroom from the lab, students had to collate their observations, notice differences and patterns, and gain an understanding both about the material of the spoons and about measurement. What surprised Marina was the unprecedented high level of engagement from all the students, especially noteworthy as the class consisted of children of various ages, as it was a mixed age classroom. One of the older students shared that he felt he was "actually doing science" for the first time, because he was involved in the measurement process in a direct manner.

This example highlights the embodied nature of learning. Conventional education focuses on the cognitive above all else, and less on the body's role in learning. However, as holistic educational approaches show, children learn through their bodies as much or more than they do through intellectual activities. For Krishnamurti (2015), to focus only on the cognitive is a fragmentation of learning that makes knowledge dead rather than alive and fresh. In Dewey's (1933) terminology, it is the integration of the "logical" with the "psychological" that leads to learning, not a focus on the logical alone. Understood from these perspectives, the embodied experience of touching and judging the warmth of a spoon is quite different from noting down temperature readings from a scale. Secondly, there is the social aspect of the experience when collating

all classmates' perceptions of heat, where one begins to understand the difference between subjective and objective and the need for standard units of measurement. This lesson is an example of what Dewey (1934) calls "complete experience" consisting of "inception, development, and fulfillment," including reflection on the experience as part of the educative experience. For Krishnamurti, this is learning from observation and inquiry rather than mechanically accumulating second-hand knowledge.

Learning in the virtual world

One of the strengths of virtual experiences is that they can manipulate space and time in ways that would not be possible in the real world. One example has to do with better understanding states of matter (particularly water) and what happens at the atomic and molecular level with changes in temperature. In this virtual world, learners start in a room standing in front of a block of ice. They reach out to touch it and pick it up and toss it to each other. More importantly each learner has a control panel floating in the air, inviting them to zoom in and explore the icy world at a microscopic level. With a flick of their wrist, they activate the panel and zoom in. They see human hair, spider webs, and tiny creatures crawling on the surface of the ice. The closer they get, the more intricate and fascinating the world becomes. They see ice crystals, with intricate patterns and shapes, all connected by a web of fragile bonds. As they keep zooming in, the world becomes even more surreal. They see a cluster of viruses, their spike proteins reaching out like claws. As they keep going deeper and deeper, the readouts on their control panel remind them of the incredible scale of what they are seeing. They are now at the nanoscale, and the laws of physics that govern the behavior of matter are entirely different. And then finally, they can see water molecules trapped within the ice lattice. Moreover, they can grab these molecules and manipulate them, feeling their stickiness as they pull them apart, sensing, in their hands, the weak Van der Waals forces that come into play in these domains. Finally, learners can also change the environment by raising the temperature and watch the molecules start jiggling and vibrating around them. The ice melts, and they find themselves surrounded by a swarm of water molecules, moving and flowing like a river. And they can also go the other way, pushing the temperature down and watching the crystals start to form, as the water turns to ice. All this while they can engage and interact with each other, asking questions, and developing answers and a shared understanding of the phenomena.

This example shows just how powerful such shared virtual experiences can be, allowing learners to immerse themselves in a world explained by science. Moreover, such experiences allow learners to go beyond the textbook and abstractions to experience and see the intricate beauty and complexity of the most common of materials in the world around us—water. And to learn that, at the smallest scales, there is an entire universe of wonder and mystery, waiting to be discovered. But there are risks there as well, specifically about whether learners can understand and recognize that such experiences are curated and not “real.” That the laws in these worlds are an idealized version of the laws of physics, that these are representations, which have their strengths but also limitations.

Raising some questions

Having seen the two examples, we must now discuss the possibilities, potentials, and pitfalls (risks) in each of these examples. This begs the question of how mediated experiences, such as the one described above, are similar to, and different from our experiences with the real world. At some level, both real and virtual experiences can be immersive, engaging our senses (including sight, sound, and touch) in powerful ways. In addition, both real and virtual experiences can evoke emotional responses and create connections with the content, with each other or the broader environment. Even virtual experiences can be psychologically real (as anybody who has shed a tear when watching a commercial can attest to). Both can engage us cognitively through processes such as problem-solving and learning. Both can create a sense of presence, where learners feel completely engaged, connected to their surroundings and to each other, which in turn can lead to collaboration and shared understanding.

That said, it must be recognized that virtual experiences rely merely on simulated sensory information, which are often limited in detail or fidelity compared to real experiences. This artificiality can negatively impact emotional, cognitive, and psychological engagement, potentially limiting the intensity or authenticity of our responses and the depth of connections we build. Virtual experiences, even when detailed and sophisticated, are constructed and hence not bound by the rules of the real world. This can be both a strength (allowing us to fly through rich virtual landscapes such as the inside of an ice-cube to see the world in ways not possible otherwise) and a limitation (since these digital worlds do

not necessarily have to conform to the laws of physics, particularly in educational situations where fidelity to the laws of the real world is important).

The other aspect we need to keep in mind is the manipulability of situations and the importance of surprise as being important to learning. In the real-world example, keeping in mind the Deweyan concept of interaction, the learner’s ability to manipulate their immediate environment in unpredictable ways is often what leads to new learning. These new learnings can be surprising, for example, a learner touching the handle of the pan and realizing immediately why it needs to be made of non-metal. Alternatively, it could be the result of an accident, such as spilling some drops of boiling water either on herself, or dropping a different object (that the teacher would never have thought of) into the boiling water with intriguing results, that could be the foundation for further questions and inquiry. In contrast, virtual experiences are preprogrammed, mediated experiences rather than immediate. Surprise is not necessarily inherent in the context but rather has to be programmed in. Extending the unexpected into the virtual experience is not completely possible, as the interactions between the learner and the surroundings must follow an already coded/ designed/ planned path. Manipulation is only possible within the parameters of the design (for instance, the control panel in our VR example that allows for temperature and other changes). This is not to undermine the intrinsic power of the virtual experience (that allows us to have certain experiences that are just not possible in the real world) but rather to point to certain limitations that are inherent in these experiences.

We would argue that it is more important to ask how these virtual experiences truly change how learners connect with the world; how it influences their future experiences; and what is being lost or gained in the process. The virtual experience is pre-packaged, whereas in the kind of schools that Dewey and Krishnamurti envisioned, conditions are created that enable the child to explore, inquire, and reflect—and through that have an educational experience. Thus, though the primacy of the experience cannot be doubted in VR, it is unclear if virtual experiences can be truly educational, at least in the way that our philosophers conceptualize it. An experience is educative if it arises from the learner’s tendencies and curiosities, leads to richer engagements with the world, nurtures sensitivity in the learner, and makes the learner inquire into current realities with a focus on action

- whether it is the democratic action of Dewey or the inner realization of societal conditioning of Krishnamurti. Exploring the nature of conditioning, that is the habitual reactions to experiences rather than experiencing something afresh, without the filters of religion, nationality, status, etc., was one of the primary concerns of Krishnamurti (1970). It involves an ongoing interaction with one's environment and with others around us, through a focus on relationships we nurture with others and with the world. Experience must be understood and examined through the lens of the right relationship, to question social injustice that arises when certain experiences (as expertise) are valued more than others, bring us back to Dewey's conceptualization of democratic education.

This issue of "surprise" and the designed nature of virtual experience is just one of the many questions that educators need to explore as we look to the future. Of course, this is just one of many questions that arise in this context, and as we had said, our goal in this paper is not as much to provide answers as it is to raise, what we believe, are some provocative questions. A limited list is given below and we invite the readers reflect on some of the questions we raise below. We offer this list not as being comprehensive, which would be foolhardy just given how quickly technologies are changing. That said, we do believe, that these questions are worthy of attention for all educators. With that we offer some questions to ponder.

- How can we preserve and adapt the core principles of Dewey's and Krishnamurti's philosophies in a world dominated by virtual experiences and ensure these continue to foster individual and social development?

- What is the place of self-inquiry in virtual environments specifically in contexts that are often constrained by the design of the technological interface and environment?

- In what ways might the increasing prevalence of virtual experiences reshape the concept of "community" and "democracy" in the context of education, and how can we navigate these changes responsibly?

- As the line between real and virtual experiences continues to blur, how do we balance the ethical implications of mediated learning with the opportunities it presents for innovation and global connectivity?

- What is the nature of the aesthetic experience in these virtual worlds (constrained as they are by the aesthetic decisions made by programmers who may or may not have educational implications in mind) and what does that mean for learning?

- Who decides what these technologies and the design of experiences will look like? What is the role of the underlying economic profit-driven structures (such as multinational corporations) in setting the "frame" of what is allowed and what is not, in these spaces?

- How does living in these virtual and mediated environments change our relationships with each other and the real world? More specifically, how do the metaphors (programmable, algorithmic etc.) that are used to design these virtual worlds, feed back into our conceptions of the real world?

Conclusion

As we live and engage with each other in these virtual worlds, they become sites for our social interaction, commerce, learning and politics, and thus citizenship. So, in some sense Dewey's idea of experiential learning, leading to a broader democratic education, is not averse to these new forms of mediated human experience. In other words, if democracy and citizenship play out in these mediated worlds, and if we consider realizing democratic ideals as being one of the key goals of education, it behooves us as educators to take these technologies seriously and to learn to craft powerful educational experiences within them. In that sense these technologies are now part of the socio-political ecosystem and need to be incorporated within our educational practices.

Krishnamurti's ideas however call for a different dimension of engagement, with the emphasis on the holistic and spiritual growth of the individual through self-inquiry. It is unclear how mediated experiences—constructed, however intentionally, by others—can allow for such inquiry, or alternatively, how they constrain the kinds of inquiry possible. In fact, it can be argued that the limitations inherent in the technology itself may affect us inversely, nudging us to see the real world through these "techno-limited" lenses.

Perhaps we can keep in mind the role of context, not just the learner's context, but the context of learning itself. Technological knowledge is important in certain contexts, for example, in surgery or in flying a plane, and the uses of VR are potentially limitless in such contexts. However, one has to be cautious to extend such knowledge to the whole of learning and education. Modern technologies including VR are being designed for more and more realistic, detailed, sensory experiences, and it is worth remembering Krishnamurti's words in this context:

“... we must understand the nature of our daily living, the daily irritations, the daily angers, boredom, loneliness, and despair. Yet, instead of facing all that, understanding it, cleaning it up, we want super-extra-sensory experiences, when we have not even understood the activity of the daily response of the senses” (1980).

What is the kind of education that enables one to understand the nature of boredom, to explore how the mind looks for sensory stimulations (let alone “super-extra-sensory” ones), and the role of technology and society in all of this? The answer may lie in fundamentally rethinking the nature of education itself.

References

Dewey, J. (1933). *How we think, a restatement of the relation of reflective thinking to the educative process*. D.C. Heath.

Dewey, J. (1934). *Art as Experience*. Minton, Balch & Co.

Dewey, J. (1938). *Experience and education*. Macmillan.

Hildebrand, D. (2018). John Dewey. In Edward N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Winter 2018 Edition). <https://plato.stanford.edu/archives/win2018/entries/dewey/>

Krishnamurti J. (1970). *The urgency of change*. Harper & Row.

Krishnamurti, J. (1980). Extra-sensory experiences [Public Talk]. <https://www.jkrishnamurti.org/content/34th-question-saanen-4th-question-answer-meeting-26th-july-1980-extra-sensory-experiences>

Krishnamurti, J. (1981). *Education and the significance of life*. Harper and Row.

Krishnamurti, J. (2015). *The whole movement of life is learning: Letters to his schools*. Darmstadt, Germany: CRAFT Verlag.

Seshadri, C. (2006). Placing Krishnamurti in the philosophy of education. *Journal of the Krishnamurti Schools*, 10, 3–9.

Education for Flowering



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