Salud, Ciencia y Tecnología. 2026; 6:2373 doi: 10.56294/saludcyt20262373

AG

REVIEW

Dewey to Digital Age: How Pragmatism Shapes EdTech Today

De Dewey a la Era Digital: Cómo el Pragmatismo Da Forma a la Tecnología Educativa en la Actualidad

Amriha Dardagan Bani¹ , Ivy Marish Sulmayor Buco², Ahida Ibrahim Panulong³, Arlene Ramos Alcopra⁴, Frederick Ybanez⁵, Felix Gaviola Jr⁴, Maria Alma Quiao⁶

¹Pantao Ragat Agro-Industrial High School, Municipality of Pantao-Ragat, Lanao Del Norte, Philippines and College of Education, Mindanao State University-Iligan Institute of Technology, Philippines.

²Manga Integrated School, Municipality of Kolambugan, Lanao Del Norte, Philippines and College of Education, Mindanao State University-Iligan Institute of Technology, Philippines.

³Higher Education Department, Jamiatul Philippine Al-Islamia, Marawi City, Lanao Del Sur, Philippines and College of Education, Mindanao State University-Iligan Institute of Technology, Philippines.

Department of Professional Education, Mindanao State University-Iligan Institute of Technology, Iligan City, Philippines.

⁵College of Education, Bukidnon State University, Baungon Satellite Campus, Bukidnon, Philippines.

⁶College of Education, Mindanao State University-Iligan Institute of Technology, Iligan City, Philippines and Mindanao State University at Naawan, Naawan, Misamis Oriental, Philippines.

Cite as: Dardagan Bani A, Sulmayor Buco IM, Ibrahim Panulong A, Ramos Alcopra A, Ybanez F, Gaviola Jr F, et al. Dewey to Digital Age: How Pragmatism Shapes EdTech Today. Salud, Ciencia y Tecnología. 2026;6:2373. https://doi.org/10.56294/saludcyt20262373

Submitted: 10-06-2025 Revised: 27-08-2025 Accepted: 15-11-2025 Published: 16-11-2025

Editor: Prof. Dr. William Castillo-González

Corresponding author: Amriha Dardagan Bani

ABSTRACT

Introduction: the prevalent use of educational technologies (edtech) in classrooms has revolutionized the way educators teach and support students. This study builds on the tradition of John Dewey's pragmatism to investigate how experiences, student-centered approaches, and activity-centered democratic experiences continue and evolve in tech-mediated spaces.

Method: with a qualitative narrative inquiry stance, the research collected verbal stories from five educators that included experienced and novice teachers using semi-structured interviews. The stories were analyzed through the lens of the philosophical paradigm of Dewey's pragmatism and were contextualized within larger psychological and sociological frameworks.

Results: the stories illustrated how teachers actively wrestled with the integration of technology while also trying to uphold Deweyan principles. Educators discussed how they wanted to successfully promote inquiry-based and reflective learning using digital tools, while also facing hindrances like access issues, bureaucratic demands, and overly standardized systems. The results indicated a persistent tension between progressive pedagogy and technocentric educational practice.

Conclusions: the stories revealed how teachers purposefully grappled with using technology while working to uphold the Deweyan ideals. Teachers identified benefits such as the ability to engage in inquiry and reflective, fluid learning using digital platforms, while they also identified challenges such as inequality, mandated procedures, and over-standardized learning environments. The results displayed persistent tension in the educational landscape between progressive pedagogy and technocentric tendencies.

Keywords: Digital Education; Educational Technology; Experiential Learning; John Dewey; Pragmatism; Student-Centered Pedagogy.

RESUMEN

Introducción: el uso generalizado de las tecnologías educativas (edtech) en las aulas ha revolucionado la

© 2026; Los autores. Este es un artículo en acceso abierto, distribuido bajo los términos de una licencia Creative Commons (https://creativecommons.org/licenses/by/4.0) que permite el uso, distribución y reproducción en cualquier medio siempre que la obra original sea correctamente citada

forma en que los educadores enseñan y apoyan a los estudiantes. Este estudio se basa en la tradición del pragmatismo de John Dewey para investigar cómo las experiencias, los enfoques centrados en el estudiante y las experiencias democráticas centradas en la actividad continúan y evolucionan en los espacios mediados por la tecnología.

Método: con un enfoque cualitativo de investigación narrativa, la investigación recopiló relatos verbales de cinco educadores, tanto experimentados como novatos, utilizando entrevistas semiestructuradas. Las historias fueron analizadas a través del lente del paradigma filosófico del pragmatismo de Dewey y se contextualizaron dentro de marcos psicológicos y sociológicos más amplios.

Resultados: las historias ilustraron cómo los docentes luchaban activamente con la integración de la tecnología mientras intentaban mantener los principios de Dewey. Los educadores discutieron su deseo de promover con éxito el aprendizaje basado en la indagación y la reflexión mediante herramientas digitales, al mismo tiempo que enfrentaban obstáculos como problemas de acceso, exigencias burocráticas y sistemas excesivamente estandarizados. Los resultados indicaron una tensión persistente entre la pedagogía progresista y la práctica educativa tecnocéntrica.

Conclusiones: las historias revelaron cómo los docentes se esforzaban conscientemente por utilizar la tecnología mientras trabajaban para mantener los ideales de Dewey. Los profesores identificaron beneficios, como la posibilidad de fomentar la indagación y el aprendizaje reflexivo y flexible mediante plataformas digitales, pero también reconocieron desafíos como la desigualdad, los procedimientos obligatorios y los entornos de aprendizaje excesivamente estandarizados. Los resultados mostraron una tensión persistente en el panorama educativo entre la pedagogía progresista y las tendencias tecnocéntricas.

Palabras clave: Educación Digital; Tecnología Educativa; Aprendizaje Experiencial; John Dewey; Pragmatismo; Pedagogía Centrada en el Estudiante.

INTRODUCTION

In the 21st century, it is no longer only chalkboards and a textbook world. A plethora of educational technology (EdTech), from adaptive learning platforms and AI tutors to collaborative digital workspaces, has reached our classrooms and transformed teaching and learning. Advocates herald revolutionary access, personalization, and engagement. Now, as schools embrace innovation, the question lingers: Are we using technology to deepen learning, or merely to enable more effective control?

The question itself draws upon a philosophy that is over one hundred years old, yet still relevant to us today in digital classrooms: John Dewey's pragmatism. Dewey viewed education as strongly immersive, studentcentered, and he envisioned education as democratically involved. Dewey kicked education into gear to him was not the act of taking in information but rather, it was active inquiry, social participation, and the individual's personal growth, the "reconstruction of experience".(1) This ideology still shapes educational discourse today. As teachers seek to use digital tools to foster reflection, agency, and immediacy that reflect our students' "real-world."

Dewey's ideals now face a complicated reality. The hold technology has in both the economy, the workforce, and for education has great potential for supporting engagement and exploration, but they are installed with the race kingdoms of surveillance, standardization, and efficiency. At best, as Watters and Selwyn have pointed out, EdTech is often created within regulations that are the logics of markets and policies and that limit the autonomy of educators, privilege data over dialog, and maintain existing inequalities. (2,3) Teachers operate with notions of both an original Dewey in mind, particularly in resource-scarce contexts when educators walk capacities to chart innovation against the limits of infrastructure, access to training, and flexibility of curriculum.

This study explored how Dewey's educational philosophy is still relevant and at times challenged in the digital age using a narrative approach, drawing on lived experiences. It used stories from five educators in different contexts and settings to think about how philosophical ideals and practical realities interact, showing how they can be both inspiring and contradictory. These stories offer critical glimpses into the everyday negotiations educators make as they attempt to fulfill the deeper purposes of education through technological means.

While Dewey's framework provides the philosophical compass, the study is additionally interested in larger psychological and sociological perspectives of learning. It examines how technology impacts student motivation, cognitive load, and social inclusion; all of which are important elements to explore in order to capture the full effect of EdTech in practice. By integrating these cross-disciplinary insights and experiences into a unified story, this article connects theory to practice, indicating not just what is possible but what has to happen to make meaningful, equitable technology use a reality.

This inquiry will operate with two central questions:

3 Dardagan Bani A, et al

- 1. How do teachers and students engage with technology in learning contexts in ways that can be considered experiential or student-centered learning described by Dewey?
- 2. What challenges do teachers and students face in sustaining Deweyan experiences in technology-mediated environments?

These questions ground a story that is both reflective and forward-looking - a story that honors the perspectives of educators on the ground, while envisioning a future in which pragmatism and digital innovation can exist in concert in the service of human learning and democratic development.

DEVELOPMENT

Historical Context

In 1900, American educator and philosopher John Dewey proposed a radical shift away from the typical educational practices of his time. The classrooms at that time were primarily centered around the rote memorization of facts, strict discipline, and a "one-size-fit-all" model for instruction. Dewey proposed a more humane and democratic type of education, where learning is conceived not as a passive engagement with facts, but rather as a living process of experience, inquiry, and growth. He stated, "education is not preparation for life; education is life itself", illustrating to the reader that something must be learned from and feedback into real-life experiences.⁽¹⁾

Dewey highlighted participatory experience as essential to learning in Democracy and Education. Dewey called for schools to represent democratic society and function, in some respects, as communities where students experienced problems from the real world, worked with others, and created a system of reflective thinking. His emphasis on learning through doing directly challenged transmissive models of education that were prevalent at that time. Education was not merely an abstract process for Dewey, but an essential reconstructive process that allowed people to engage with the world around them in active and ethical ways.

Dewey expanded on these ideas in How We Think (1910), and described reflective thought as the key to meaningful learning. Instead of passively consuming content, learners should experience doubt, uncover problems, and develop potential solutions. For Dewey, curiosity was not just a childhood trait but the driver of intellectual development. Once habits of reflection and judgment were established, education could cultivate lifelong learners to deal with the complexities of changing realities in society.⁽⁴⁾

Dewey's educational framework was notably marked by its social aspect. Dewey did not think of schools as isolated entities. Rather, he understood them as small democracies that would model cooperative values, mutual respect, and civic responsibility. The Laboratory School, Illinois, located at Chicago University, was the first experiment in realizing these ideas. His Laboratory School embraced interdisciplinary education, project-based teaching and learning, connections between school and out-of-school (i.e., everyday) engagements, and learning. Contributions like these led to many contemporary practices developing out of student-centered education; including project-based learning, inquiry-based learning and culturally responsive teaching.⁽¹⁾

Importantly, Dewey's ideas' work was not developed in isolation. It was a reaction to the industrialization of every dimension of schooling, the growing power of scientific management, and the social transformations created by urbanization and immigration. His appeal for democratic and experiential education was both philosophical and political, offering a pathway for living life in opposition to oppressive standardization, while preparing learners to participate as active members of a pluralistic society.

Dewey's philosophy was first dismissed by some as naive and idealistic; however, over the decades, Dewey's philosophy gained traction among educational reformers, progressive schools, and constructivist theorists who were influenced by Dewey's work to engage in the fight against the prevailing behaviorist and technocratic forms of schooling. Isolation of educational technology in the mid-twentieth century began to enter classrooms, and Dewey provided a platform to think about how tools could still enhance—or at the very least, not inhibit—experiential, inquiry-driven learning.

As we move forward, with the upheaval and transformation of education into digital technologies, Dewey still lives on as the touchstone for those who strive to match transformation with ethical, participatory, and reflective educational practices. Dewey³ reminds us, it is about people, relations, meaning-making, and democratic growth, irrespective of how sophisticated our tools become when we teach and learn.

EdTech's Evolution

The history of educational technology is more than a list of devices—it is a story of changing pedagogical beliefs, changing conceptualizations of what learning should be, and the ongoing tension of efficiency and meaning. From the mid-20th century teaching machines developed by B. F. Skinner to today's adaptive AI systems, the use of technologies in classrooms has come from competing narratives of learning as transmission versus learning as transformation. (1,2)

The early tools of behaviorism - emphasis on correctness, repetition, and control - encouraged learners'

behavior, for example, Skinner's teaching machines scheduled learning around small linear steps of instruction. Although these tools appeared to be in a position of helping to automate instruction, they represented, in Dewey's terms, "mis-educative experiences" - experiences which stub growth and disconnect knowledge to valuable contexts. These devices did not attend to Dewey's holistic, democratic, and experiential vision of learning.

The 1980s introduced an alternative vision, Seymur Papert's constructionism. Papert⁵ believed computers could be not just delivery mechanisms but thinking instruments, and in terms of Dewey's concepts, he took it further. Papert thought of the learner as a creator instead of a consumer, and they interacted with ideas by making, experimenting, and ultimately reflecting on their interactions. In Mindstorms, he thought about technology as a space for agency and epistemic play, similar to Dewey's vision about learning through reflection in action. (5)

As the internet evolved education in the 1990s and 2000s, digital formats offered promises of personalization, accessibility, and innovation. Learning management systems and online simulations seemed to move toward progressive ends. But most represent a focus on efficiency and outcomes in ways beyond the depth of intention behind design. Selwyn and Watters pointed out that many EdTech tools they explored focus on the external production of the student rather than the students' deep learning; they are tools for training out performance and gathering student-based data. (2,3) These changes can be viewed in light of Dewey's perspectives on the risk of education when divorced from the learners' own interests, like the risk of segmenting education to where it becomes "external and mechanical". (6)

The increasing use of metrics as a predominant characteristic of education extends itself to further critique. Biesta cautioned against the notion of "learnification" of education whereby "learning" becomes simply acquisition and measurement and lacks an ethical or democratic purpose. (7) Gallagher argued that prescriptive outcome- based models of education eliminate the potential for uncertainty, potentiality, and real inquiry. (8)

There are also psychological considerations. Sweller Cognitive Load Theory highlights that excessive information—poorly scaffolded—can hinder deep learning by overwhelming working memory. (9) Much of today's EdTech fails to account for this, offering dense, unsupportive platforms that privilege design over cognition.

More recently, Deci and Ryan's Self-Determination Theory reminds us that autonomy, competence, and relatedness are essential for engaged learning. Yet when digital environments reduce students to data points and isolate them from peers, they suppress precisely the conditions needed for genuine growth. (10)

Even with this tension, many educators have attempted to utilize technology to fulfill Deweyan principles. Multimedia storytelling, collaborative platforms, and immersives have been turned into opportunities to foster student voice, inquiry, and legitimate connection. In these contexts, EdTech, becomes a context for growth, not a boundary to growth.

EdTech's trajectory ultimately reveals competing ideas of education: control and delivery versus narrative and growth. The future of EdTech will reveal values: are we building for control or curiosity, efficiency or exploration, measurement or meaning? Dewey reminds us not to lose sight of the quality of the experience—not the tool's novelty. And technology can be an effective ally in lifelong learning when it supports those ideals. (6)

Personal Stories

Educational technology is not a set of tools. Educational technology is lived and understood by two generations of educators who must make sense of institutional expectations, student needs, and personal pedagogy on a daily basis. This chapter presents a series of accounts from both experienced and newer teachers who recount their ongoing relationship with EdTech. The teachers' accounts, filled with stories of adaptation, improvisation, and reflection illustrate the continued relevance of Dewey's philosophy in modern classrooms, particularly Dewey's emphasis on experience, inquiry, and student-centered educational practices.

Veteran Educators: Grounding Change in Context

Ms. Faisah P. Bato, Senior High School Coordinator at Pantao Ragat Agro-Industrial High School, shares her connection to educational technology through her when she first experienced it: "Most of my colleagues had laptops. I did not. This prompted me to buy one. Microsoft Word was my first favourite application and it was the easiest of applications because it made my life much easier."

The experience she shares illustrates how the integration of simple digital tools in education, prompted by necessity and not innovation, can have a significant impact on practice. Her flexibility reveals how, at the minimum, digital access can impact professionalism and technological agency with education, at least for all educators who did not start their careers with the teaching of digital tools in mind. It is important to note that the experience also indicates that access and digital engagement are mediated by age, experience and the institutional culture of the lived reality of sociology.

For Dr. Ainilhaya I. Panulong, School Principal in a remote community of Butig, Lanao del Sur, educational technology proved to be a transformational moment in her teaching practice: "It was just a simple PowerPoint

5 Dardagan Bani A, et al

presentation, shown on a borrowed laptop and portable speaker. The pupils' eyes went big - concepts were now more tangible, discussions more animated, and interest was off the charts. It was at that moment that the practice changed. I became convinced that, with little to work with, technology could level the playing field, promote a culture of curiosity, and make abstract information real."

Her story reinforces Dewey's call for authentic experiences and context-specific learning. She demonstrated that even without basic infrastructure, reflectively using available resources can enable learners, build understanding, and better reinforce education as a social endeavor. Her emphasis on context-specific adaptations, as an administrator, also reflects Dewey's notion that educational practice must adapt to the community.

New Generation Teachers: Navigating Between Possibility and Pressure

Ivy Marish Buco, a junior high teacher, describes the dual nature of technology: "As a new teacher in my profession, I see that technology can be a powerful tool and a potential distraction. Including technology can increase students' engagement with a discussion, making it a more engaging experience; but access to it is still a struggle, since internet access is not common across all schools. I admit, I've seen that without appropriate design, technology can also be a passive form of engagement; it is not uncommon for students to focus on clicking through activities rather than critically engaging the content. The balance of using technology to support inquiry-driven learning has definitely been a learning curve for me."

Her observation demonstrates a psychological challenge familiar to Dewey's (How We Think, 1910) view of reflective thought and Sweller's theory of cognitive load: in the absence of depth or scaffolded inquiry with digital tasks, students can be either bored or overwhelmed. (9) As Ivy has described, technology requires thoughtful lesson design to use it intentionally and to create spaces for agency and deep learning.

Senior high school teacher Amriha D. Bani explains an inquiry-centered physics lesson using simulation software: "I engaged the PhET Simulation to indicate what the horizontal and vertical components of velocity and acceleration do in projectile motion. Rather than simply explaining the theory, I let the students manipulate the simulation. They adjusted the angle, speed, and height of the projectile and noted what happened to the motion. From there, they concluded that while the horizontal velocity remained constant, the vertical velocity was changing due to gravity. This discovery from manipulating the simulation was more engaging and meaningful for them in connecting the ideas."

She shares: "I also saw moments that sucked the meaning out of the learning - technology made it feel very mechanical. Some digital modules offered by the school during the pandemic were very limited with regard to interactive elements. Students were either taking quizzes, or copying notes from slides, where there was no opportunity for students to inquire or explore."

This ongoing struggle between meaningful learning and mechanical task completion brings light currently on the demand many educators experience during system-wide EdTech transitions. This also represents a challenge highlighted in Self-Determination Theory, when students feel they can act authentically and feel competent, they are more conceptually engaged. Conversely, when students are driven by passive learning or extrinsic forces, they do not feel as engaged. (10)

Ahida I. Panulong, a teacher at Jamiatul Philippine Al-Islamia, recognizes the potential and limitation to EdTech: "The use of educational technology has markedly increased my students' motivation and engagement. EdTech tools such as interactive presentations, video, and gamified lessons enhance the learning environment with great dynamism and relatable content. Also, students become more curious, ask deeper questions, and are often more willing to engage in class."

However, she also highlights the potential sociological barriers for effective EdTech use: "Not all learners have reliable internet and personal devices at home, therefore depriving them of the potential benefits from tech-based tasks. Regardless of inefficiencies, I try to maximize their experiences with tech by creating offline presentations, showing videos during class time, or seeking out free or low-data educational apps."

Ahida's observations reveal that valuable learning cannot hinge entirely, or even mostly, on the tools, it necessarily gives way to the larger and more intractable aspects of structural inequalities. Like Dewey, Ahida has great regard for learning within a wider cultural and communitarian aspect of school life, where learners have agency shaped by adaptability, empathy, and access.

A Shared Vision

There is one constant through all of these stories: Technology may enhance learning, but technology does not define learning. Teachers who use technology reflectively, creatively, and compassionately can determine whether it enhances or alienates students. These stories remind us that Dewey's vision does live in technology, but in those moments of exploration, connection, and transformation. Educational technology integrates itself into the learning process when grounded in context, and guided by inquiry and ethical intention. Once educational technology is no longer considered as a tool, then it can serve as a bridge to deeper understanding

of and a more equitable learning experience.

Challenges and Tensions

As educational technology continues to reveal new prospects for innovation and engagement, its actual use within real classrooms demonstrates continued tensions between the potential of digital tools and the pedagogical ideals established by John Dewey. While some of these tensions can be explained as technical tensions, many of these tensions are also based on ethical, psychological, and sociological tensions, simply because these tensions are based on deeper issues related to access, autonomy, and purpose.

One of the biggest challenges is educational equity. Dr. Ainilhaya I. Panulong noted that teachers in the underserved communities encounter limitations with infrastructure, connectivity, and technical support. In these environments, EdTech can exacerbate inequities instead of reducing them. Similarly, Selwyn and Watters have observed that many educational technologies are constructed with the unacknowledged presumption that the users have some privilege associated with fundamental categories of need, which has developed a disconnection between what is proposed and what is required at the localized level. Dewey cautioned against educational systems that allow for efficiency to trump equity at the expense of the lived experience of the learner too suggesting that such systems may lead to disjointed and empty educational products. (6)

The second area of contention within EdTech is the over-reliance on outcomes-based assessment models. Most EdTech platforms emphasize speed, correctness, and analytics. While these metrics may be of interest to administrators and policymakers, these notions often undermine deeper cognitive engagement and ethical considerations. Biesta coined the term "learnification" to describe the phenomenon of education reduced to inputs and outputs that can be credibly quantified. (7) Gallagher similarly criticizes "learnification" implying it is an anti-inquiry-oriented approach and that reflection or independent thought has been replaced with algorithmic compliance. (8) Dewey argued education should foster reflective individuals, not just performers that follow a task. (6) When education is shaped through platforms with constrained content in fixed modules or scripted tasks, those platforms risk stripping away the curiosity and meaning that go along with education and real learning.

These structural tensions create psychological effects for both students and teachers. Educators such as Amriha D. Bani and Ivy Marish Buco have noted how rigid digital content bans- it inhibits creativity and limits explorations. Their experiences conform to Dewey's definition of learning as an active and participatory process. EdTech restricts students to only receptacle roles and this limits their ability to experience the principles of experientialism that underpin a democratic education.

Self-Determination Theory establishes that motivation is best in settings where learners demonstrate autonomy, competence, and relationship. (10) However, when we impose technology on learners via a top-down process that is used primarily to monitor or control practice or to diminish possibilities for engagement or exploration, we are likely to undermine these essential psychological needs. Teachers similarly feel constrained by systems that determine their pacing and assessments regardless of the professional decisions that they make for the context of their class. Likewise, Sweller's Cognitive Load Theory describes poorly constructed instructional systems that can create a cognitive overload on the working memory of teachers or learners, leading to frustration and disengagement. (9) In reality, because digital tools often privilege performance with fewer cognitive scaffolds, what is learned is limited to "doing the task" by a robotic version of a human. Such designs are contradictory to Dewey's model of learning; a learner is engaged with continuity, interaction, and purpose.

Policy frameworks often reconvolve. Teachers describe institutional pressure to adopt specific platforms or models of learning institutions regardless of the context. For teachers and students, mandates based on rudimentary, underlying political ideologies impact innovations in educational technology with fear, confusion and resentment. The way Dr. Panulong leads affords local and contextualized use of EdTech that readily grasps important educational dimensions of Dewey's mission of situating educational approaches grounded in; learners, their environments, and communities. In contrast, conservative policies that privilege compliance over flexibility can reduce educational effectiveness and impede the democratic values of learning.

On a broader level, Vygotsky's sociocultural theory and his concept of the Zone of Proximal Development (ZPD) remind us that learning occurs most effectively through the process of social mediation, dialogue, and collaboration. (11) Considering many EdTech platforms as of today are designed with isolation and individualization in mind with little regard for mutual interaction and teacher scaffolding, and to some degree the interests of the learner stall or inhibit the collaborative, contextualized means of meaning-making that Vygotsky explained as part of cognitive development. (11)

In the end, the problem isn't technology—its purpose. Are we providing conditions for learners to think, collaborate and act with purpose? Or are we designing systems that promote conformity, compliance, and surveillance? Dewey stated education was about growth, agency, and engagement in a community-not simply a transaction of the transfer of content for money. For technology to be and do, authentically, human

7 Dardagan Bani A, et al

development, the development of the technology must include ethical criteria in its design and development, democratic engagement, and situational knowledge. (6)

The stories and research examined in this investigation indicate that meaningful EdTech intervention must extend beyond design and function. It needs to be about developing culturally responsive, philosophically based, psychologically supportive, and socially just EdTech. We do not want to do away with technology, we want to re-imagine technology, not as a neutral tool, but as a tool shaped by values. For EdTech to inspire freedom, creation and growth, it needs to be in alignment with learners' realities and teachers' expertise—and it must be rooted in human dignity rather than digital efficiency.

CONCLUSION

This narrative inquiry has traced the development of educational technology through the lens of Dewey's ethos of linking education to experiences, inquiry, and democratic participation. The analysis included reflection to contribute to situated histories, narrative analysis of personal stories and testimonies, and theoretical critique, as the work contributed to Dewey's notion of practical, lived experiences. Overall, the main takeaway from this inquiry is that while digital tools support an evolution in the landscape of learning, they should not supersede the humanistic aspect of education.

Dewey asserted that authentic education occurs when experiences are meaningful and connected, and that learners engage with the ideas that matter to them in ways that foster growth. (6) Dewey's philosophy is a reminder that learning is a transformation of thought, feeling, and action, not a transaction of content. (1) He urged teachers to understand that students are not merely passive recipients of information but are engaged in active sense-making, and that schools are communities for enacting and fostering democratic functioning. (3) These lessons are more pressing than ever as the number of platforms increase, and educational data is commodified, posing a real threat that efficiency through technological means will outweigh our aim in education.

The personal narratives shared in this study: the illustrations of veteran teachers negotiating change, to new teachers yearning for agency for students in contextually burdensome environments, showcase the constrained promises and perilous risks of EdTech. Their narratives support Self-Determination Theory in arguing that motivation will manifest when autonomy, competence and relatedness are nurtured, and that when technologies become prescriptive or isolating, then basic needs may be curtailed and engagement will be further hampered.⁽¹⁰⁾

In the same way, Sweller's work on cognitive load reminds us that not all technology will support learning. Bombarding students with fragmented, fast-paced digital content can also undermine deep understanding. Finally, learning, according to Vygotsky, is social and contextual. Tools that strip away cultural nuance and fail to solicit interaction run the risk of making the persons in the educational design process invisible to the very students being supported. (11)

From a sociological perspective, the writings of Selwyn and Watters challenge us to see EdTech as more than neutral innovation. They point to how power, access, and profit shape what kinds of technologies are developed, adopted, and celebrated. (2,3) When EdTech reflects market priorities rather than educational values, the result is often increased inequity rather than empowerment.

This narrative study does not look to dismiss technology, but rather to reconceptualize it. It is not to digitize instruction, but to humanize learning through deliberate technologies that can enrich curiosity, encourage reflections, and maintain community. Dewey's ideals, far from disappearing, can guide us through this process.

Going forward, the task for educators, (over designers and betrayed) and policy makers is to make sure that the next generation of educational technologies is designed and built according to values rather than code. This implies building systems that promote collaborative rather than self-centric communities, reflective rather than performance-based growth, and ethical rather than algorithmic reasoning.

If we adhere to Dewey's philosophy, embedded in the real-world principles of today's classrooms, EdTech can move from being a delivery mechanism, to a way to develop democratic life, cognition, and social transformation.

REFERENCES

- 1. Dewey J. Democracy and education: An introduction to the philosophy of education. New York: Macmillan; 1916.
- 2. Watters A. The monsters of education technology. North Charleston (SC): CreateSpace Independent Publishing Platform; 2015.
- 3. Selwyn N. Education and technology: Key issues and debates. 2nd ed. London: Bloomsbury Academic; 2016.

- 4. Dewey J. How we think. Boston (MA): D.C. Heath & Co.; 1910.
- 5. Papert S. Mindstorms: Children, computers, and powerful ideas. New York: Basic Books; 1980.
- 6. Dewey J. Experience and education. New York: Macmillan; 1938.
- 7. Biesta G. Good education in an age of measurement: Ethics, politics, democracy. Stud Philos Educ. 2010;21(1):33-46. doi:10.1007/s11092-008-9064-9
- 8. Gallagher S. The trouble with outcomes: Pragmatic inquiry and educational aims. Coll Engl. 2012;75(1):42-60.
 - 9. Sweller J. Cognitive load during problem solving: Effects on learning. Cogn Sci. 1988;12:257-85.
- 10. Ryan RM, Deci EL. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. Am Psychol. 2000;55(1):68-78. doi:10.1037/0003-066X.55.1.68
- 11. Vygotsky LS. Mind in society: The development of higher psychological processes. Cole M, John-Steiner V, Scribner S, Souberman E, editors and translators. Cambridge (MA): Harvard University Press; 1978.

FINANCING

The authors did not receive financing for the development of this research.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest related to the research, authorship, or publication of this article.

AUTHORSHIP CONTRIBUTION

Conceptualization: Amriha Dardagan Bani, Ivy Marish Sulmayor Buco, Ahida Ibrahim Panulong, Arlene Ramos Alcopra.

Data curation: Ahida Ibrahim Panulong.

Formal analysis: Amriha Dardagan Bani, Ivy Marish Sulmayor Buco, Ahida Ibrahim Panulong.

Research: Amriha Dardagan Bani.

Methodology: Ahida Ibrahim Panulong and Ivy Marish Sulmayor Buco.

Project management: Ivy Marish Sulmayor Buco.

Resources: Maria Alma Quiao. Supervision: Arlene Ramos Alcopra. Validation: Arlene Ramos Alcopra.

Display: Felix Gaviola Jr.

Drafting - original draft: Amriha Dardagan Bani. Writing - proofreading and editing: Frederick Ybanez.