DEIA Instructional Technology

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Overview and Definition

Diversity, equity, inclusion, and accessibility (DEIA) in United States higher education institutions represents the acknowledgement of existing systemic inequities and the reparative efforts to eradicate those inequities, and to acknowledge and equitably support students, staff, and faculty for their whole, authentic selves regardless of race, ethnicity, ability, gender identity, gender expression, or socioeconomic status. Though referenced in a multitude of combinations such as DEI, EDI, etc., all the acronyms share a common reparative goal, particularly for those in historically marginalized and/or underrepresented populations including but not limited to Black or African Americans, Asian Americans, Pacific Islanders, Indigenous Peoples, and LGTBQ+.

In 2019, the American Council on Education (ACE) reported that undergraduate students of color rose from 29.6 percent in 1996 to 45.2 percent in 2016, while graduate student racial and ethnic diversity increased 20.8 percent to 32 percent in the same reporting period (Espinosa et al. 2019, xvi). ACE (2020) also found higher education faculty, staff, and administrator racial and ethnic diversity continues to lag behind student diversity with people of color comprising 21.5 percent of full-time faculty, 20.2 percent of part-time faculty, and 15.2 percent of academic department heads (10-11). Furthermore, Black, Indigenous, and other students of color “were much more likely to encounter people from similar backgrounds in clerical, technical, and service staff positions than among faculty, department head, administrative, or mid-level professional positions” (Taylor et al. 2020, 11). Despite higher education’s recent emphasis on DEIA pushed by social outrage to increasingly visible acts of police brutality, misogyny, racism, homophobia, transphobia, and the perpetuation of systemic oppression, DEIA efforts have long existed in higher education as multiple populations have been discriminately obstructed from pursuing postsecondary education.

Instructional technology, also known as educational technology or edtech, is one of the many mechanisms by which instruction is delivered and learning is facilitated. Technology’s expansive potential touts nearly endless advances to support how society learns, communicates, and functions, but issues with bias, equitable access, and representation continue to plague implementation.

Why Do You Need to Know?

Sulcio de Alvarez and Dickson-Deane (2018) paraphrase human development scholar Barbara Rogoff stating, “Individuals in communities, and communities as whole, approach learning in different ways, as their cultural processes include the everyday practices that demonstrate how they live, understand relations, and survive in their own contexts” (345).

As librarians and LIS professionals interested in or responsible for instructional delivery through technology, we should strive to provide a supportive and enriching learning environment by

• acknowledging and confronting the ways our conscious and implicit biases influence our practice;

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• genuinely engaging in cultural competence training and practice;

• investing in culturally responsive and relevant pedagogy;

• and, learning how our students are and are not represented in the educational technology we use.

This is also an opportunity to explore the ways that select instructional technology tools are used to address higher education DEIA gaps. The tools highlighted here may encourage librarians to implement more equitable tools into their practice.

Current Applications in Libraries and Higher Education

Of DEIA efforts in instructional technology, LIS and higher education scholarship addressing technology accessibility issues (Moorefield-Lang 2018; Rosen 2018) was easier to locate than scholarship addressing diversity, equity, and inclusion issues (Matloob Haghanikar 2019; Sample 2020; Sulecio de Alvarez and Dickson-Deane 2018; Switzer 2008), particularly when technology access, design, feasibility, or training for patron assistance (Pionke 2020; Vecchione et al. 2016) are considered. Martin (2016) says, “It is easy to mistake abundance of technology access for equity of the type of access that facilitates community and opportunities available from digital participation” (2016, 34).

Matloob Haghanikar (2019) uses the video production application Plotagon for a major critical pedagogy assignment in the Children’s Literature for Diversity and Social Justice course. In this course, the author modified the existing final from writing an analysis of identified strengths and challenges of diverse representation in a multicultural YA title, to presenting a six-scene animated video of crucial plot points. One of the key assignment changes encourages the students to reflect on setting, characters, events, future teaching use, and cultural themes (Matloob Haghanikar 2019, 216). Plotagon provides diverse scene and character options, sound effects, music, and character interaction and visible emotion queues (Gurvitch and Lund 2014, as cited in Matloob Haghanikar 2019, 217). Matloob Haghanikar praises Plotagon as a “remarkable education tool...helped students visually express their ideas and comprehend their readings” (217).

Sample’s 2020 case study documents how librarians at Oral Roberts University Library are using augmented, virtual, and mixed reality (AMVR) edtech, such as 3DVista, to teach library navigation and research skills and build virtual tours with the primary aim of reducing library anxiety by increasing student familiarity with the library and its staff without direct contact. The study found the AMVR library tour built in 3DVista helped improve students’ confidence in their ability to navigate the library and its resources (Sample 2020, 13). However, one key study limitation was the lack of participation from students more likely to experience library anxiety. The study mentions new and international students as examples of these groups, but does not acknowledge that students from underrepresented racial, ethnic, gender, or sexual minority groups may also suffer from higher levels of library anxiety (Black 2016). Nevertheless, this study shows potential AMVR application opportunities for other libraries with more diverse student populations.

Cherner and Fegely’s 2018 study evaluated iPad applications for design quality and content through a diverse, equitable, and multicultural lens by asking (1) what is the state—amount and quality—of iOS iPad applications designed for diversity equity, and multiculturalism (DEM) topics; and (2) what themes emerge from the iOS iPad applications identified as being developed for DEM? (2018, 22). The authors echo Matloob Haghanikar that edtech must be able to represent diverse people and cultures as authentically as possible. They found the following:

• Narrative storytelling is a dominant feature for DEM apps (e.g., diversityDNA: Cultural Diversity Training that Sticks or Sensory Room)

• Apps tend to superficially address diversity by relying on character appearance or briefly acknowledging cultural diversity and issues (e.g., Everyday Racism)

• Apps tend to underrepresent groups outside of larger racial or ethnic groups, religious and sexual minorities, and center Whiteness by juxtaposing other cultures...
against White ideals and social constructs (e.g., Sleepover in Africa or Sleepover in Antarctica) (29-34).

Potential Hurdles

Sulecio de Alvarez and Dickson-Deane’s 2018 literature review found four obstacles when edtech is designed for and implemented in learning environments without holistic, community driven, and culturally responsive consideration: (1) learners are not just consumers of technology; (2) technology can create silos and alienate humans from each other even if the intent is to create community; (3) technology feedback and activity loops can have unintended consequences (e.g., loss of communal cultural practices); and (4) piecemeal changes (e.g., designing software to make decisions for the learner) can negatively impact student agency and autonomy (4-9).

Other observed potential hurdles include, but are not limited to:

- Higher education’s approach to DEIA, particularly in predominantly White institutions (PWIs) can be at best (and rarest) genuine; often, superficial when it is publicly trendy; and ignored when the spotlight is elsewhere.

- DEIA efforts may suffer underfunding if not prioritized by university administrators.

Furthermore, heightened social and political tensions can amplify burnout amongst DEIA advocates, especially those from underrepresented populations tasked with the emotional, mental, and physical labor of progressing and implementing DEIA on their campuses.

Conclusion

This author firmly believes that DEIA helps make academic libraries, higher education, and the larger society better. We have the infrastructure and creative talent to design and implement edtech grounded and centered in DEIA theory and practice. Though progress continues to fight forward, mass-produced edtech will continue to reflect the priorities of those in positional power and influence. The works referenced in this issue will encourage librarians to critically reflect on how their instructional tools address DEIA.

References


Further Readings
