# No Pity Invites: Information Ecological Approach to Including Disabled Adult Learners in Higher Education

Kevin J. Mallary, Ph.D.<sup>1</sup> and Adam L. McClain, Ph.D.<sup>2</sup>

<sup>1</sup>Old Dominion University <sup>2</sup>North Carolina A&T State University

**Abstract:** As adult learners with disabilities increasingly participate in higher education, adult educators must adapt their instructional practices and learning environments to meet all learners' needs. Information Ecology Theory studies how social structures such as higher education institutions serve students with disabilities. The theory explores how people, practices, values, and technologies within an institution can strengthen teaching and learning. This paper aims to illustrate how Information Ecology Theory can assist adult educators in developing accessible and inclusive courses for adult learners. Specifically, we will discuss how adult educators, disability support services, instructional designers, and information technologists can partner to serve all adult learners.

*Keywords*: accessible instruction, adult educators, disabled adult learners, higher education, information ecology

Kevin: "No pity invites" was inspired by my experience as a profoundly deaf adult learner. My fellow researcher and I took a qualitative research course during our doctoral studies. In a particular class session, during breakaway group discussions, my peers spoke inaudibly and did not overtly invite me to join the discussion, resulting in me feeling excluded and upset. I excused myself from the group and left the classroom, prompting another friend to come to the hallway to offer support. It took several minutes for me to calm down, but I mustered the courage to reenter the classroom. Upon returning to the group discussion, my peers spoke more clearly and even asked for my ideas. Although they included me in the discussion, I felt their behavior was out of sympathy or pity for my disability.

Adam: My colleague's experience inspired me to share my lack of knowledge regarding disability and how to include learners with disabilities. This was the beginning of our journey as we began engaging in conversations to learn from one another and develop a research agenda to better understand adult learners with disabilities and enhance inclusion in higher education.

This paper aims to extend scholarship on including adult learners with disabilities in higher education by proposing a teaching and learning framework grounded in Information Ecology Theory (Nardi & O'Day, 1999). First, the paper offers background information on including disabled adult learners in higher education. Second, the authors introduce Information Ecology Theory and discuss its practical application in serving adult learners with disabilities. Lastly, the implications of an information ecology approach are shared.

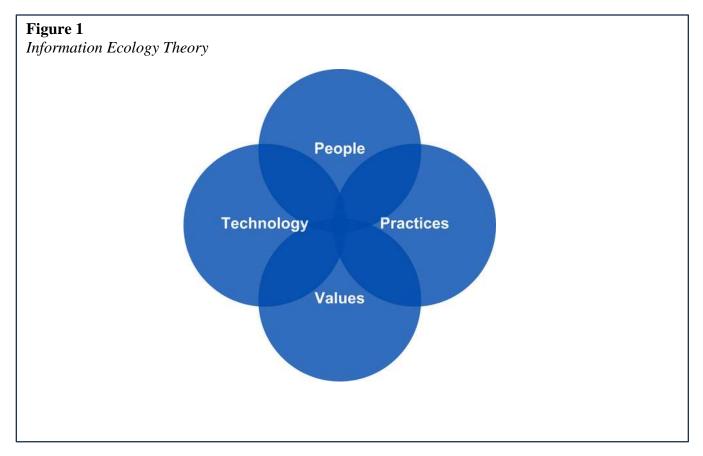
#### **Background**

Higher education is becoming more diverse with an influx of adult learners, and a growing subset of this population is adult learners with disabilities (Carr-Chellman et al., 2022; Merriam & Bierema, 2014; Rogers-Shaw et al., 2022). The authors conceptualize disability as socially constructed. The idea is that disabled adult learners are limited not by their diagnoses but by attitudes toward disabilities and traditionally inaccessible teaching and learning environments (Dolmage, 2017). Adult learners with disabilities vary in terms of their expectations and motives for learning; preferred modalities for receiving information; strategies used to process, retain, and apply information; and desired means of demonstrating mastery of learning (Gerber, 2012; Gregg, 2012; Rogers-Shaw et al., 2018). Given the variability of adult learners with disabilities, adult educators must acquire knowledge of these students' accessibility needs and design inclusive teaching and learning environments (Hock, 2012; McGinty, 2021; Nycyk, 2018).

Various teaching and learning frameworks have been developed to assist adult educators with the inclusion of adult learners with disabilities. For example, Housel (2020) recommends that adult educators practice Culturally Responsive Pedagogy, which involves eliciting the lived experiences of adult learners (e.g., ethnicity, gender, abilities). Adult educators may adopt the Communities of Inquiry framework by regularly communicating with disabled adult learners in distance learning environments and providing ample opportunities for peer collaboration (Sheward et al., 2022). Implementing a Profoundabilities model (Rogers-Shaw et al., 2022) or Universal Design for Learning (UDL) framework (Meyer et al., 2014) accentuates disabled adult learners' capabilities through flexible instructional design. Although adult educators have used different frameworks to design inclusive teaching and learning environments, these approaches overlook the institutional partnerships and accessibility policies affecting the inclusion of adult learners with disabilities.

## **Information Ecology Theory**

Building on the frameworks above, the authors propose using Information Ecology Theory for designing inclusive teaching and learning environments. Information Ecology Theory (IET) examines the dynamics of social structures within institutions and provides a framework to facilitate the inclusion of disabled learners (Perrault, 2011). As depicted in Figure 1, IET comprises four components: people (e.g., adult educators, disability services coordinators, instructional designers), practices, values, and technologies in higher education institutions that affect the inclusion of adult learners with disabilities. Each component is discussed in the following section.



## Applying Information Ecology Theory for Including Adult Learners with Disabilities

Designing inclusive teaching and learning environments requires the collaboration of **people:** this approach can include adult educators, disability services coordinators, and instructional designers. Adult educators are pivotal in implementing accessible and inclusive practices in learning environments (Rogers-Shaw et al., 2022). Through awareness, collaboration, and training, adult educators can engage in the following **practices**:

- Receive accessibility training from disability services coordinators (Dolmage, 2017).
- Solicit feedback from disabled adult learners through anonymous surveys and community forums, and continually reflect on and refine instruction based on the insights shared (Mallary, 2023).
- Facilitate collaborative environments for learners to engage with information and contribute to knowledge creation (Sheward et al., 2022).
- Consult instructional designers to ensure that materials are accessible to adult learners who use assistive technologies (Rogers-Shaw et al., 2018).
- Exchange disability-related resources with colleagues to build an accessibility- and inclusion-driven culture (Black & Moore, 2019).

Along with the components of people and practices, **technologies** are essential to including adult learners with disabilities. Teaching and learning practices are enabled by various technologies, such as learning management systems that facilitate content delivery and peer collaboration

(Sheward et al., 2022). Embedded in the provision and use of technologies is the final component, **values** (Potnis & Mallary, 2023). For example, adult educators can partner with instructional designers to provide materials in accessible formats (e.g., captioning, electronic books, large-print materials) so learners can equitably receive information (Mallary, 2023). Adult educators may foster classroom belonging by encouraging students to use technologies to share and apply information.

## **Implications of the Proposed Model**

Adopting an information ecological approach in higher education involves cultivating an accessibility mindset and strengthening partnerships among adult educators, disability services coordinators, instructional designers, and administrators. Central to this approach is adult educators' commitment to reflecting on and using feedback from learners to design more inclusive teaching and learning environments. To support accessible course design, adult educators may employ a variety of resources, including the Center for Applied Special Technologies (2018) UDL Guidelines, Microsoft's (2023) Accessibility Resources, and the World Wide Web Consortium's (2023) Web Content Accessibility Guidelines. By engaging in these practices and recognizing the essential role of technology within the IET framework, adult educators may design more inclusive teaching and learning environments to address disabled adult learners' needs comprehensively. Designing accessible courses for adult learners with disabilities provides equitable experiences for all adult learners in higher education.

#### Conclusion

Creating an inclusive space for disabled adult learners in higher education requires a comprehensive approach that recognizes the intricacies of teaching and learning environments. Information Ecology Theory offers a valuable framework for understanding the dynamics within higher education institutions. By fostering collaborative partnerships among adult educators, disability services coordinators, instructional designers, and administrators, higher education institutions can foster a culture where disabled learners can excel. This paper highlights the importance of embracing an information ecological approach to build a more equitable and inclusive higher education landscape.

#### References

- Black, J., & Moore, E. J. (2019). *UDL navigators in higher education: A field guide*. CAST Professional Publishing. Carr-Chellman, D. J., Kroth, M., & Rogers-Shaw, C. (2022). Human flourishing and adult education. In *Adult Education Research Conference Proceedings*. Norman, OK. https://newprairiepress.org/aerc/2022/papers/2. CAST (2018). *Universal Design for Learning guidelines version* 2.2. http://udlguidelines.cast.org.
- Dolmage, J. (2017). Academic ableism: Disability and higher education. University of Michigan Press.
- Gerber, P. J. (2012). The impact of learning disabilities on adulthood: A review of the evidenced-based literature for research and practice in adult education. *Journal of Learning Disabilities*, 45(1), 31–46. https://doi.org/10.1177/0022219411426858.
- Gregg, N. (2012). Increasing access to learning for the adult basic education learner with learning disabilities: Evidence-based accommodation research. *Journal of Learning Disabilities*, *45*(1), 47–63. https://doi.org/10.1177/0022219411426855.
- Hock, M. F. (2012). Effective literacy instruction for adults with specific learning disabilities: Implications for adult educators. *Journal of Learning Disabilities*, 45(1), 64–78. https://doi.org/10.1177/0022219411426859.
- Housel, D. (2020). When co-occurring factors impact adult learners. *Adult Learning*, *31*(1), 6–16. https://doi.org/10.1177/1045159519849910.

- Mallary, K. J. (2023, September 29). Cultivating diverse, equitable, inclusive, and accessible learning environments through Universal Design for Learning [Webinar]. Old Dominion University.
- McGinty, J. (2021). Accessible digital learning materials for inclusive adult education. *Adult Learning*, 32(2), 96–98. https://doi.org/10.1177/1045159520961470.
- Merriam, S. B., & Bierema, L. L. (2014). Adult learning: Linking theory and practice (1st ed.). Jossey-Bass.
- Meyer, A., Rose, D. H., & Gordon, D. (2014). *Universal Design for Learning: Theory and practice*. CAST Professional Publishing.
- Microsoft (2023). Accessibility training and resources. https://www.microsoft.com/en-us/accessibility/resources/.
- Nardi, B., & O'Day, V. (1999). Information ecologies. In *Information Ecologies: Using Technology with Heart*. MIT Press.
- Nycyk, M. (2018). Education support for adults with an intellectual disability: A tutor's reflection. *Adult Learning*, 29(4), 176–178. https://doi.org/10.1177/1045159518783981.
- Perrault, A. (2011). *Understanding and leveraging information ecologies serving youth with disabilities* [Newsletter]. University at Buffalo Graduate School of Education.
- Potnis, D., & Mallary, K. (2023). Comparing the "value of information services" for providers and vulnerable patrons: A mixed-methods study with academic libraries and disabled students. *Information Research*, 28(3), 83–109. https://informationr.net/infres/article/view/198.
- Rogers-Shaw, C., Carr-Chellman, D., & Choi, J. (2018). Universal Design for Learning: Guidelines for accessible online instruction. *Adult Learning*, 29(1), 20–31. https://doi.org/10.1177/1045159517735530.
- Rogers-Shaw, C., Kroth, M., & Carr-Chellman, D. (2022). Developing Profoundabilities: A new model for adult educators. In *Adult Education Research Conference Proceedings*. Norman, OK. https://newprairiepress.org/aerc/2022/roundtables/11.
- Sheward, K., Rogers-Shaw, C., & Park, T. W. (2022). Creating connection by design: Supporting adult learners by building inclusive online academic communities. In *Adult Education Research Conference Proceedings*. Norman, OK. https://newprairiepress.org/aerc/2022/papers/27.
- World Wide Web Consortium (2023). Web Content Accessibility Guidelines 2.0. https://www.w3.org/WAI/standards-guidelines/wcag/