



Bridging Borders: Media Pedagogy, Universal Design for Learning and Open Educational Resources in Open and Distance Education

Satyendra Kumar^{1*} and Amiteshwar Ratra²

¹PhD Research Scholar, STRIDE, IGNOU, New Delhi, India

²Professor of Distance Education, STRIDE, IGNOU, New Delhi, India

*Corresponding author: satyendra.iimc@gmail.com

Received: 20 Mar., 2024

Revised: 22 May, 2024

Accepted: 02 June, 2024

ABSTRACT

Open and distance education (ODE) has undergone a profound transformation in the twenty-first century, driven by the convergence of digital media, open access philosophy, and inclusive pedagogical frameworks. This paper highlights the roles of media pedagogy, Universal Design for Learning (UDL), and Open Educational Resources (OER) in designing the Open and Distance Learning (ODL) environment for equal opportunities of acquiring knowledge for diverse students from various backgrounds. Based on a review of related literature, research and policies, this paper contends that the integration of these three elements can be leveraged to democratize knowledge and improve pedagogical outcomes. The study further points out important barriers to the successful application of the above-mentioned concepts including lack of technological infrastructure and resistance within organizations.

Keywords: Open and distance education, ODL, media pedagogy, universal design for learning, inclusive education, open educational resources, online learning

The global landscape of education has been fundamentally reshaped by the proliferation of digital media and technologies, open-access platforms, and an expanding global commitment to lifelong learning. Open and distance education (ODE) originated as a means to expand education beyond the classroom setting, both physically and temporally, and has evolved into a highly complex and varied system of

How to cite this article: Kumar, S. and Ratra, A. (2024). Bridging Borders: Media Pedagogy, Universal Design for Learning and Open Educational Resources in Open and Distance Education. *Learning Community*, 15(01): 01-10.

Source of Support: None; **Conflict of Interest:** None



MOOCs, blended learning, virtual learning institutes, and hybrid models (Peters, 2010; Moore & Kearsley, 2012). In this context, three distinct conceptual frameworks in the area of quality and inclusiveness in Open and Distance Learning (ODL) that have become increasingly relevant in the literature include media pedagogy, Universal Design for Learning (UDL), and Open Educational Resources (OER). All three of these frameworks, on their own merits, represent an approach that could contribute positively to education, but taken together form a potent paradigm yet to be explored fully.

While each framework has drawn increasing scholarly interest, however, the existing literature generally fails to consider them as interconnected concepts. Media pedagogy researchers highlight the way in which digital and multimodal media redefine the process of learning (Buckingham, 2019), whereas UDL proponents examine neurological diversity and instructional flexibility in greater detail (CAST, 2018), while proponents of OERs emphasize the economic and equitable implications of the open access to knowledge and resources (Wiley & Hilton, 2018). The lack of such an integrated perspective is a significant lacuna that exists within both theoretical and practical realms.

In an effort to contribute to overcoming this challenge, this paper presents a systematic conceptual review, which examines the connections between media pedagogy, UDL, and OERs, and demonstrates that these approaches are not only complementary but also mutually beneficial approaches that form the foundation for creating a comprehensive and future-ready ODL system. In order to achieve this goal, this paper analyses four major themes: a contextual overview of ODE, a critical examination of each framework, their interactions and potential conflicts, and the development of a Tripartite Integrative Model (TIM) for ODL practice.

Open and Distance Education: Contextual Landscape and Evolving Imperatives

ODE is an umbrella term that describes a wide range of formal and informal types of education where the learner and the educator are separated by geographical or temporal factors or both, and the educational institution facilitates the process via technological means and other structural elements (Holmberg, 2005; Garrison, 2000). Throughout its history, ODE has always reinvented itself and embraced new technologies as means of overcoming barriers that prevent certain groups of learners from accessing formal education – from correspondence institutions of the 19th century to satellite broadcasts and finally, to web-based platforms.

According to UNESCO, today more than 300 million people worldwide participate in various forms of ODE, the number having grown exponentially during and especially after the COVID-19 pandemic when 1.6 billion learners were forced to switch to distance education virtually or online education overnight (UNESCO, 2021). These rapid developments have demonstrated the adaptability of some ODE programmes to the sudden change and also highlighted weaknesses of others, particularly in underdeveloped and developing countries (World Bank, 2020).

Therefore, there have been catalysed urgent questions about the quality, inclusivity, and sustainability of ODE. There is a need for quality education to be accessible and available to all. Policymakers and

scholars are increasingly recognising the fact that technology alone is not enough; genuine educational equity demands pedagogically sound, openly accessible, and universally designed learning experiences (Ferdig *et al.* 2020). These imperatives map directly onto the three frameworks discussed in this paper.

Media Pedagogy in Open and Distance Education

Conceptual Foundations

The subject matter of media pedagogy comprises everything concerning the pedagogical significance of the media within education, employment and recreation, and studies the media content, function, ways of using them in these spheres, and media's personal and collective effect (Ordinance Governing the Principles of Media Education 2001). Media pedagogy focuses much more on process rather than content and tries to promote skills of critical evaluation of the effect of media message irrespective of its type and technological basis; thus, media pedagogy includes complex types of thinking such as analysis, synthesis, and generating new media content and product. In another words, media pedagogy refers to the critical and productive examination and use of media and technologies (including the digital, audiovisual, and multimodal varieties) as tools and subjects of educational activity (Kellner & Share, 2019). It involves three distinct but complementary perspectives: (i) the theory of media education, (ii) the theory of media socialization, and (iii) the theory of educational media (Qvortrup 2007).

Education via media, whereby media is used as pedagogical instrument for content delivery and learning processes, and education about media, whereby learners develop their media literacy skills (Buckingham, 2019), and it becomes important within the context of ODL.

First and foremost, developing an online learning course amounts to the process of designing media. Media design is at the core of the instructional design of distance learning environment: course content creation with the help of different kinds of media (content structure, representation, and delivery across various media formats) that will enable maximal engagement, understanding, and memorisation of the material among distributed learners (Moore & Kearsley, 2012). The present ODE course takes place in the context of a rich and complex media environment consisting of such elements as video streaming lectures, simulation, podcasts, infographics, gaming tasks, and collaboration tools.

Media Pedagogy and Learner Engagement

Studies have demonstrated that multimodal approaches in the media help raise the level of engagement and cognition for ODE contexts. In his multimedia learning theory, Mayer (2009) says that people can understand the meaning of messages presented to them in both verbal and visual forms simultaneously; a theory that is supported by Means *et al.* (2013) in relation to distance learning settings. It states that such an approach generates better learning outcomes compared to purely text-based instructional materials.

ODE contexts require media pedagogy not only to deliver content but also to engage the learners and make them more conscious about issues. Freire's (1970) concept of dialogical pedagogy, which was

formulated in traditional, face-to-face teaching environments, has been powerfully transferred into the medium of digital distance education by scholars such as Rhoads *et al.* (2015) as a means of achieving critical dialogue and reflection through ODE media technologies.

Challenges and Critical Perspectives

However, the implementation of media pedagogy in ODE does come with some serious difficulties. The digital divide, whereby the availability of internet bandwidth, digital devices, and digital competence varies among learners, can turn media-saturated education into a tool for exclusion rather than inclusion (van Dijk, 2020). Additionally, media pedagogy in education based on edutainment has been criticized for masking inadequate pedagogic planning with the use of technology itself, which serves as an attraction but offers little substance (Selwyn, 2016).

Open Educational Resources: Access, Equity, and Quality

Defining OER and Their Theoretical Grounding

Open Educational Resources (OER) is a phrase created during the UNESCO forum on the impact of Open Courseware for Higher Education in 2002, and the $\text{R}5$, namely Retain, Reuse, Revise, Remix, and Redistribute, by Wiley (2014) were used to define OERs: the rights to use educational resources under the open license. OER encompass textbooks, curricula, syllabuses, lecture notes, assignments, tests, projects, audio, video, and any other instrument, resource, or method designed to enhance knowledge access.

Conceptually, OERs are based on the convergence of philosophies concerning open knowledge, learning theories, and calls for social justice. The philosophy of open knowledge is outlined in the Budapest Open Access Initiative (2002) and the Cape Town Open Education Declaration (2007); both documents emphasize that all education materials should be accessible without restrictions as a basic human right. In addition, the philosophy of constructivist learning emphasizes the importance of active engagement, modification, and application of learning resources to achieve maximum effect, which is possible under the open license model.

OER in Distance Education: Evidence and Impact

Evidence on the use of OER in distance education environments continues to become increasingly reliable. For instance, a comprehensive study conducted by Hilton (2016), which involved analysing 16 studies comprising over 120,000 students, concluded that OER generate comparable or better learning outcomes than those offered by commercially produced textbooks, but at a fraction of the cost. This finding is highly relevant to the field of ODE because, in a distance learning environment, the costs associated with textbooks and other learning materials constitute a huge financial challenge for students, who must also incur extra costs to access technological devices (Fischer *et al.* 2015).

The impact of institutional OERs initiatives has been found to be highly empowering to marginalized communities. The OpenLearn platform of the UK Open University has enabled over 100 million hours of learning to take place amongst students from over 200 countries, with a significant percentage of the students using this website being from Sub-Saharan Africa and South Asia, and who could not afford to access higher education learning resources otherwise (Olney *et al.* 2012).

Quality, Sustainability, and Critical Debates

Though OERs have tremendous potential, they continue to face difficulties regarding quality control, accessibility, and sustainability from an institutional perspective. According to Butcher (2015), there is a far greater number of OER than educators can possibly assess and place in context for use by student groups, especially if they include multilingual or diverse cultural contexts. Another major issue with OERs is the dominance of English language resources, which continues the practice of privileging certain languages within the realm of knowledge production (Panda & Mishra, 2007).

Universal Design for Learning: Inclusive Architecture of ODE

Principles and Framework

Universal Design for Learning (UDL) is an evidence-based practice developed by the Centre for Applied Special Technology (CAST) to offer suggestions on how to create flexible learning opportunities based on the diversity of the learners (CAST, 2018). Based on neuroscience, cognition, and disability studies, UDL is based on three basic principles, which include multiple means of representation (“what”), multiple means of action and expression (“how”), and multiple means of engagement (“why”).

The roots of UDL philosophy can be traced back to the movement of universal design in architecture, where it was suggested that any environment, which is maximally accessible for everyone, should be designed for people who have disabilities (Mace, 1985), as well as Vygotsky’s (1978) social-cultural theory, which stresses the heterogeneous nature of zone of proximal development (ZPD) of the learners. Within ODE framework, UDL implies the need to accommodate a wide range of variability among learners in the areas of perception, language, executive function, and motivation.

UDL Implementation in Online and Distance Learning

A universal design approach to ODE is not only conceptually strong but also practical to implement. Several studies such as those conducted by Smith and Harvey (2014) and Rao *et al.* (2015) confirm that incorporating UDL elements into online courses improves learning experiences for individuals with disabilities, second-language learners, and first-generation college students—the most commonly underrepresented groups of online learners. Multiple representations of information delivered in online courses can include video lectures with captions; auditory descriptions of visuals; text representations of graphics, photos, videos, animations, podcasts; and texts with different levels of language complexity.

Multiple ways of expressing one's knowledge in ODE can be achieved through various assessment methods, including audio/visual projects, portfolios, and peer reviews, which would enable learners to express their skills through mediums aligned with their abilities. Multiple modes of engaging online learners can be attained via offering choice in topics to cover, using culturally sensitive materials, and creating online communities that promote internal motivation among remote learners (Kumar & Wideman, 2014).

UDL and the Equity Imperative

The first aspect that must be considered in connection with the use of the UDL framework for ODE is the compatibility between the UDL framework and other educational equity models. Typically, students that find themselves in situations where they are engaged in ODL are typically those that have been marginalized from the mainstream of education such as disabled students, adults returning to school, parents, people living in rural areas, prisoners, and individuals living in conflict areas (Taylor, 2014).

Synergies, Tensions, and the Tripartite Integrative Model

Convergences Among the Three Frameworks

When taken collectively, media pedagogy, UDL, and OER highlight several striking similarities in terms of structure. To begin with, the three strategies share the inherent quality of being barrier reducing. Whereas media pedagogy reduces barriers to acquiring knowledge, UDL reduces barriers to processing information. On the other hand, OER reduces barriers in terms of price. Secondly, the three strategies can be seen as learner-centered strategies, which view diversity as a strength rather than a weakness that must be addressed in designing learning experiences.

These similarities have concrete implications for design practice. An ODE course that successfully utilizes OER can be modified and repurposed to include different media types as recommended by media pedagogy, which means that open resources will not only be freely accessible but also multimodal and engaging. OER made accessible through the implementation of UDL guidelines becomes truly accessible and can engage learners including who are visually impaired, hearing impaired, cognitively impaired, and physically impaired. Principles of media pedagogy inform the deliberate use of these accessible and open resources in educational experiences.

Tensions and Implementation Challenges

However, despite their similarities, all three frameworks are associated with certain points of conflict. While media pedagogy calls for rich media resources, this approach is contradictory to the conditions under which most OER students use low-bandwidth connection to access exclusively textual OERs (West & Victor, 2011). Moreover, UDL's demand for diverse presentation methods requires considerable financial input in adaptation of the content, which might be too much for ODE institutions and volunteer-driven OER groups to manage.

Institutional conditions, as well, pose particular challenges. Most accredited ODE institutions function in systems that were devised with synchronous classroom instruction in mind and do not sufficiently appreciate the sophisticated nature of UDL-based, media-oriented and openly-licensed programmes (Carey & Trick, 2013). Moreover, faculty training, OER adaptation issues from the intellectual property perspective, and assistance technology compliance pose particular problems.

The Tripartite Integrative Model (TIM)

In light of the aforementioned opportunities and challenges, the Tripartite Integrative Model (TIM) is proposed for use in ODE practices. TIM considers the nexus between media pedagogical considerations, OER usage, and UDL guidelines as three interconnected dimensions of educational design practice that shape and inform one another within a commitment to education equity and effectiveness. The TIM model consists of three levels of implementation:

The macro level involves TIM policy considerations, wherein national or institutional ODE policies should be designed to incorporate considerations of OER mandates, media literacy guidelines, and UDL guidelines into a unified framework. In other words, there should be integration of these concepts rather than addressing them in isolation within different departments or policies.

The meso level of TIM implementation entails TIM practice recommendations at the institutional level, whereby curriculum development teams should involve media experts who have experience in producing and selecting multimodal content, OER coordinators who know how to select, modify, and license open resources, and educational designers experienced in UDL.

At the micro level, TIM shapes the learner experience: individual learning units should offer open, multimodal, and flexibly assessable content that explicitly accommodates diverse learner needs, invites critical media engagement, and leverages the remix ability of OER to contextualise materials for specific cultural, linguistic, and disciplinary communities. Analytics and formative assessment data should be used to continuously refine the alignment of media, openness, and inclusivity in live courses.

Discussion: Implications for Policy and Practice

ODE's adoption of media pedagogy, UDL, and OER entails far-reaching consequences on a policy, governance, and pedagogic level. At the policy-making level, international organizations like UNESCO and the Commonwealth of Learning can encourage the implementation of TIM-based policies through technical support, capacity-building initiatives, and financial incentives for integrated implementation of all three pedagogies as opposed to implementing each framework separately (Commonwealth of Learning, 2016).

From the perspective of distance education providers, the introduction of the TIM implies that attention be paid to the development of educators' skills and competencies. In most cases, instructors who work within ODE environments are hired based on their academic qualifications in specific subject areas without regard to their instructional design expertise; hence, the necessity for comprehensive training

programmes as opposed to seminars (Bates, 2019). The creation of an institution-specific repository of OERs tagged with UDL indicators and media metadata will minimize the effort required to adopt the three pedagogic frameworks.

For learners, a TIM-consistent ODE provides an entirely new educational experience: one that does not simply take place at a distance but that is actually sensitive to their cognitive, cultural, and economic situation. Research conducted into learner satisfaction within online learning spaces has constantly highlighted the significance of flexibility, relevance, and interactivity, which are the crucial elements of persistence and success (Shea & Bidjerano, 2014). Flexibility, relevance, and interactivity are all promoted in the TIM framework by the interaction between media pedagogy, UDL, and OERs.

It is critical to emphasize that the implementation of the TIM model is not a set of instructions or a doctrine. There is bound to be considerable variability in terms of how such an approach would be implemented within a particular context. Future studies should investigate how it is implemented within different contexts, especially in relation to under-resourced ODEs in developing countries.

CONCLUSION

Throughout this paper, it has been argued that the combination of media pedagogy, OERs, and UDL in a theoretically coherent and practically implementable framework represents a legitimate strategy for promoting equity and effectiveness in open and distance education. Conceptual analysis has shown that each of the frameworks is designed to address a specific yet related challenge to achieving equity and effectiveness in ODE systems. Nevertheless, the combination of the frameworks under discussion in the theoretical framework of the Tripartite Integrative Model provides added value.

Digital divide, problems with quality assurance, inertia in universities, and lack of resources represent significant challenges. Therefore, they require joint actions on various levels – from policymaking to instructional practices – based on the fundamental idea that differences in geography, socioeconomics, cognitive development, and culture should never have any influence on the educational opportunities available to individuals. With ODE developing rapidly worldwide, the frameworks described above represent an action plan for achieving this goal.

The agenda for future research should focus on studies conducted using mixed methods approaches in which the adoption process of TIM in different ODE contexts is assessed, convincing evidence on its effect on learners is provided, and the organizational structures that ease its adoption are identified. Cooperation among ODE institutions, learners, and policymakers in carrying out action research will be essential to move from theory to application.

REFERENCES

1. Bates, A.W. 2019. *Teaching in a digital age: Guidelines for designing teaching and learning*. BCcampus.
2. Buckingham, D. 2019. *The media education manifesto*. Polity Press.

3. Budapest Open Access Initiative. 2002. Budapest open access initiative. <https://www.budapestopenaccessinitiative.org>
4. Butcher, N. 2015. *A basic guide to open educational resources* (OER). Commonwealth of Learning & UNESCO.
5. Cape Town Open Education Declaration. 2007. Cape Town open education declaration: Unlocking the promise of open educational resources. <https://www.capetowndeclaration.org>
6. Carey, T. and Trick, D. 2013. *How online learning affects productivity, cost and quality in higher education*. C.D. Howe Institute Commentary, 368.
7. CAST. 2018. *Universal design for learning guidelines version 2.2*. <http://udlguidelines.cast.org>
8. Commonwealth of Learning. 2016. *Open educational resources: Global report 2017*. Commonwealth of Learning.
9. Ferdig, R.E., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R. and Mouza, C. 2020. *Teaching, technology, and teacher education during the COVID-19 pandemic: Stories from the field*. AACE.
10. Fischer, L., Hilton, J., Robinson, T.J. and Wiley, D.A. 2015. A multi-institutional study of the impact of open textbook adoption on the learning outcomes of post-secondary students. *Journal of Computing in Higher Education*, **27**(3): 159–172.
11. Freire, P. 1970. *Pedagogy of the oppressed*. Herder and Herder.
12. Garrison, D.R. 2000. Theoretical challenges for distance education in the 21st century: A shift from structural to transactional issues. *International Review of Research in Open and Distributed Learning*, **1**(1): 1–17.
13. Hilton, J. 2016. Open educational resources and college textbook choices: A review of research on efficacy and perceptions. *Educational Technology Research and Development*, **64**(4): 573–590.
14. Holmberg, B. 2005. *The evolution, principles and practices of distance education*. BIS-Verlag.
15. Jhangiani, R.S. and Biswas-Diener, R. (Eds.). 2017. *Open: The philosophy and practices that are revolutionizing education and science*. Ubiquity Press.
16. Kellner, D. and Share, J. 2019. *The critical media literacy guide: Engaging media and transforming education*. Brill Sense.
17. Kumar, K.L. and Wideman, M. 2014. Accessible by design: Applying UDL principles in a first year undergraduate course. *Canadian Journal of Higher Education*, **44**(1): 125–147.
18. Mace, R.L. 1985. Universal design: Barrier free environments for everyone. *Designers West*, **33**(1): 147–152.
19. Mayer, R.E. 2009. *Multimedia learning* (2nd ed.). Cambridge University Press.
20. Means, B., Toyama, Y., Murphy, R. and Baki, M. 2013. The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teachers College Record*, **115**(3): 1–47.
21. Moore, M.G. and Kearsley, G. 2012. *Distance education: A systems view of online learning* (3rd ed.). Wadsworth.
22. Olney, I., Harper, M., Hewlings, A. and Martin, L. 2012. *Analysing the relationship between openness, engagement and learning: A case study of the OpenLearn platform*. Open University UK.
23. Panda, S. and Mishra, S. 2007. E-learning in a mega open university: Faculty attitude, barriers and motivators. *Educational Media International*, **44**(4): 323–338.

24. Peters, O. 2010. *Distance education in transition: Developments and issues* (5th ed.). BIS-Verlag.
25. Qvortrup, L. 2007. Media Pedagogy: Media Education, Media Socialisation and Educational Media. *International Journal of Media, Technology and Lifelong Learning*, **3**(2): 1-2.
26. Rao, K., Ok, M.W. and Bryant, B.R. 2014. A review of research on universal design educational models. *Remedial and Special Education*, **35**(3): 153–166.
27. Rhoads, R.A., Berdan, J. and Toven-Lindsey, B. 2015. The open courseware movement in higher education: Unmasking power and raising questions about the movement’s democratic potential. *Educational Theory*, **63**(1): 87–110.
28. Selwyn, N. 2016. *Is technology good for education?* Polity Press.
29. Shea, P. and Bidjerano, T. 2014. Does online learning impede degree completion? A national study of community college students. *Computers & Education*, **75**: 103–111.
30. Smith, F. and Harvey, A. 2014. Universal design for learning and its application in online higher education. *Journal of Educational Technology*, **29**(3): 48–60.
31. Taylor, J.D. 2014. Terence: The development of open education in distance education. *International Review of Research in Open and Distributed Learning*, **15**(5).
32. UNESCO. 2021. *Education: From disruption to recovery*. UNESCO.
33. van Dijk, J.A.G.M. 2020. *The digital divide*. Polity Press.
34. Vygotsky, L.S. 1978. *Mind in society: The development of higher psychological processes*. Harvard University Press.
35. West, P. and Victor, L. 2011. *Background and action paper on OER*. WikiEducator.
36. Wiley, D. 2014. The access compromise and the 5th R. [opencontent.org](https://opencontent.org/blog/archives/3221). <https://opencontent.org/blog/archives/3221>
37. Wiley, D. and Hilton, J.L. 2018. Defining OER-enabled pedagogy. *International Review of Research in Open and Distributed Learning*, **19**(4): 133–147.
38. World Bank. 2020. *The COVID-19 pandemic: Shocks to education and policy responses*. World Bank Group.