



Evolving Learner Support Systems

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From Distance to Digital Education

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Abstract

With changing scenarios in globalization, technologization, and conception of twenty-first-century learners and learning, distance teaching institutions are also gradually changing their delivery strategies and learner support systems. This is more visible in the following: from separation of course design and learner support to both forming an integral part of blended teaching-learning; from physical and geography-based operation to more technology-enabled networked operation; from largely behaviorist model to more of constructivist and connectivist models of course design and learner support; and from a humanistic support system to more of strategic support system. In these changing scenarios,

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however, the changes in academic practices have not kept pace with technology changes; and technology and market, rather than the scholarship of teaching and support, dominate the support discourse and practice. These developments raise various research questions which need to be investigated further. The analysis in the chapter shows that the future of distance and online learning vis-à-vis learner support is poised to shift from the “course material-tutoring” system to the “networked-interactive-intelligent” system, though both will continue for quite some time to come. Institutional leaders, faculty, and other stakeholders need to engage with further articulation and reflection toward evolving a quality, productive, pedagogy-led, and learner-friendly support system.

Keywords

Learner support system · Learning support · Online and digital and blended learning · Networked learning and support · Tutoring and mentoring

Introduction

What Rumble (2001) had underlined some two decades back about the changing global-societal scenario holds good even today – that there is massive population growth and consequent demand for quality mass education, fast moving globalization and neoliberalism, decline of state power and increase in privatization, changing employment and living, and rise in information technology and knowledge economy. To these, we could add some of today’s changing scenarios: increasing global free trade and mobility; changing twenty-first-century learners and learning; decreasing “education” and increasing “learning” and vocationalization; increase in the use of flexible, collaborative, and personalized social technologies and social networks; and not the least, the prolonged pandemic and consequent long-term impact on the entire lifestyle, including education. Add to these what Salmon (2019) describes as coming up of, alongside industrial revolution 4, the Web 4.1 (i.e., the symbiotic web) leading the Education 4.0 (Bonfield, Salter, Longmuir, Benson, & Adachi, 2020), alongside Globalization 4.0 (Samans, 2019).

In these changing scenarios, where new digital technologies (including artificial intelligence, chatbots, machine learning, big data, immersive technologies, learning analytics, and Internet of Things) are brought to the center stage of teaching-learning, distance teaching institutions (and more specifically, the open universities) have been at the forefront of constant changes in especially three aspects – (i) changing and flexible methods of delivery, (ii) use of new and changing media and technology, and (iii) increase in open and flexible educational practices. Historically, starting from the erstwhile correspondence education, the out-of-classroom education has evolved through distance education, open (university) education, digital and online learning, and blended learning. Alongside this development, the learner/learning support system has also undergone significant changes. The first attempt to scientifically explain distance education within a

theoretical framework of “transactional distance,” i.e., the interaction of dialogue, structure, and autonomy, along with the required learner support system for independent study was made in as early as 1972 (Moore, 1972, 1993), and a comprehensive theoretical framework for “dialogue” in the distance education instructional system was given by Gorsky and Caspi (2005), with actual discursive practices, learning outcomes, and support systems. Subsequent transformation from distance to online education/learning brought to the fore the inquiry-based theoretical discourses relating to cognitive presence, teacher presence, and social presence, and the required support systems for especially asynchronous learning (Garrison & Anderson, 2003).

Out-of-class educational delivery has taken many shapes, including the largest number of dual-mode universities, above 60 single-mode (open) universities, and significant number of virtual universities around the world (Tait, 2018). Depending on the nature of program design and instructional design and delivery, the learner support systems for these institutional types vary across pedagogic, technological, administrative/managerial strands. While there is a large chunk of learners who prefer a traditional print-based and study center-attended model, there are others who prefer an independent and seamless online learning, with built-in collaboration. During the past two decades of this century, most institutions have gradually moved to blended teaching-learning (including remote-teaching during Covid-19 notwithstanding) which did not require drastic structural as well as infrastructural changes. However, academic organization and administrative management of such blended design and delivery requires added understanding, training, and capacity building. More or less, each delivery strategy has included one or the other form of technology-enabled learning, and national strategies have invariably adopted a policy-technology-capacity building change management model (Mishra & Panda, 2020), especially in the Commonwealth.

Irrespective of the type of distance teaching institution, access, flexibility, and openness have been the major considerations in educational delivery, including learner support. While the traditional open universities have largely depended on home delivery and study center-based support, dual-mode universities have had a judicious mix of distance teaching-learning and on-campus library access and access to labs and practicum. Though the British vision and model of single-model open universities will still attract the developing countries grappling with mass higher education, the dual-mode (or even multimode) university-blended learning continues to be the focus and the future in many developed as well as progressive systems. Nonetheless, it may be underlined here that, irrespective of the system, the contours and trajectories of learner support system shall be different for largely “fresh full-time entrants” in dual-mode universities, and for largely “employed continuing education students” of open universities. In such diversified delivery contexts, the staffing, management, and development of the faculty and staff (so crucial to learner support) would also vary (Panda, 2004). Tait (2010) commented that: “. . .One of the tipping points we balance on is whether educational institutions can skill themselves quickly enough in the organization and management of online learning experiences to be able to satisfy their learners. . .” (pp. x–xi).

In the earlier formulation of distance education as industrialized system of education (Peters, 1983), the major concern was access to mass education, rather than organization of individualized student learning experiences. Issues like attrition, persistence, and dropout came up to the fore, and attempts were made to address these through learner support services including tutoring, counseling, academic advising, and regional and study center support services. Concerns for a humanistic approach to one-to-one learner support in the context of mass higher education were raised by Sewart (1993), and subsequently Rumble (2000) argued for the distance education community to be driven by the concern for planning “customer care and support” (in comparison to the campus-based counterparts) and prepare toward that.

With the advent of the World Wide Web (WWW), and especially the semantic web, the learning design, learner support, and institutional organization and management have undergone considerable changes (Panda, 2009). The emergent and contemporarily dominant blended learning model has also traversed beyond the judicious combination of F2F and online learning delivery, to include blending at every stage of design, development, delivery, and evaluation, and especially with due consideration to distance teacher/online instructor to be at the center stage of teaching and learner support (Garrison & Vaughan, 2008; Vaughan, Cleveland-Innes, & Garrison, 2013). In such a situation, the web provides for significant opportunities for learners to interact, collaborate, and engage among themselves as also with the teacher (which was less possible in traditional distance education). Both synchronous and asynchronous communication facilities enhance such collaboration, engagement, and the possibility of “reflection.”

As we moved toward online learning, the nature of learner support did undergo considerable changes. Analyzing the types and nature of interaction in learner-learner, learner-content, and learner-instructor interaction, Anderson (2003) emphasized that while the issues of availability and access to technology as also faculty time need to be addressed, learner support is required to be designed for all three types of interaction in online learning (synchronous as well as asynchronous). Since in online learning there is possibility of simultaneous cocreation of content by students and instructors, learner support cuts across learning resources and learning support; needs to be conceptualized in an individualized, interactive, and cross-functional framework; and should be organized before, during, and after the learning process (Thorpe, 2003).

This introductory analysis clearly brings up three trends: (i) that with changing technology-enabled distance learning and the nature of learners, learner support has also undergone significant changes, (ii) that the established notion and practice of learner support as a separate activity from course design and development has undergone changes to include learner support as an integral part of course design/ learning design, and (iii) that learner support in the twenty-first century distance/ online/ blended learning is considered to be more individualized, network-based, and operates within a system of flexible open educational practices.

Learner Support Variables and Frameworks

Support Variables

Though there is no standardized conception on learner support, within a comprehensive coverage of open, distance, and online learning, Brindley, Walti, and Zawacki-Richter (2008) remarked that: “Learner support is most often used as a term subsuming all interaction between institutional personnel and students (prospective and registered) intended to assist them in meeting their objectives from point of first inquiry through graduation and beyond, often for a life time” (p.1).

In the traditional context of industrialized system of distance education, where the process of learning was largely depersonalized and students were treated as part of a production line, there was a felt need to personalize learning and provide for counseling and especially mentoring (Panda & Jena, 2001; Sewart, 1993). In the 1990s, lots of debate took place on “independence/autonomy” versus “interaction,” and the right balance that the distance teaching institution and the distance teacher could maintain (Daniel & Marquis, 1979). These considerations notwithstanding, in reality, the offer of student support largely depended on the market, the package, the delivery system, the organizational image, and the organizational culture.

Though analyzed in the context of open university education, learner support was conceived of achieving three functions (Tait, 2000) – cognitive, affective, and systemic.

- Cognitive: This support is extended through the facilitation of learning within the standardized self-learning materials, and through tutoring/academic counseling.
- Affective: This support is provided through organization of communities of learners toward facilitative environment and increase in self-esteem.
- Systemic: Provision of transparent and student-friendly administrative processes and information management systems.

All the three need to work in tandem with the goal of making students comfortable, valued, and to effectively manage their studies.

In a detailed work, though based on the experiences of the UK Open University, Macdonald (2008) discussed the types of support that could be organized by an institution (Table 1) as also various tutor variables, the value they entail for students, and what more can be done to enhance the quality of learner support (Table 2).

Table 1 Types of support across individuals, groups, and peers

Types	Individual	Group	Peers
Formal	Assignment	Tutorials, practical	Collaborative projects
Informal	Individual needs	Group networks	Social networks

Source: Macdonald, 2008, p.18

Table 2 Tutor interventions/variables

Affective:	To build confidence in students
Dialogic:	To address individual student needs
Focusing:	To facilitate development of study skills
Reflective:	To provide for reflective tasks
Time management:	Student management of time, and management of assignment turn-around time

Source: Macdonald, 2008, p.22

Table 3 Learner support system variables

Institutional variables	Technology variables	Learner variables	Academic/pedagogic variables
Organizing development of learning resources (print, audio, video, and multimedia) Course delivery Support systems (pre, on-course, and poststudy) Support networks Learning analytics Learning space. Online redressal mechanism Physical facilities and personnel Reliable and valid service Cost-effectiveness and cost-efficiency Administration and logistic support; information management system	Media channels, and conferencing facilities LMS/online platform Online tools Social media and networks Assistive technologies Servers and data privacy	Needs and preferences Readiness, motivation Satisfaction Study skills (and learning to learn skills) Self-regulated learning, and metacognitive skills Media choice	Learning resources Teaching processes Interaction, collaboration, and engagement Culture and learning Gender and learning Education and support for the disabled Tutoring, counseling, and mentoring Independence versus interaction Teacher/ tutor roles, competencies, training, and development

Academic support in the formal institutional study could be individual-based (e.g., through assignment comments and grades), group-based (e.g., in the study center tutorials and practical labs), and peer-based (e.g., through group collaborative project work). Besides, informal channel is also open to address individual and group needs through institutional and/or professional networks.

From a functional point of view, a tutor’s responsibility was much beyond dissemination and explanation of information to include more of humanistic dimensions of fostering confidence, development of skills of self-regulation and metacognition, and enhancing the ability to reflect.

Irrespective of modes of educational delivery, the variables of learner support system could be summarized to include and address a combination of or almost all the four types of variables listed in Table 3.

These institutional, technology, learner, and academic variables may vary across institutions (and, at the micro level, can be expanded to micro/contextual variables) but need to work in tandem within a macro institutional policy and system of learner support.

Support Frameworks

In a recent survey of institutional leaders, Tait (2018) reported that while some open universities have got into learning analytics, OERs and MOOCs, many others have been constrained to gradually close down their well-established physical study/learner support centers. On the other hand, most have been lobbying with governments to establish national gateways/networks, along with Wi-Fi hotspots, e-learning platforms, related ICT infrastructure, and nationalized (and standardized) online examinations and automated learner feedback systems. For them, the change from the study center-based to network-based support (as also convenient mix of the two) could be traced through examination of a few frameworks as practiced by select distance teaching institutions.

Tait (2014) presented the evolution of the learner support framework at the UKOU over a period of time, starting with 1971:

- 1971–1976: local counselor, local module-tutor, regional center support, and 1-week residential schools
- 1976–2000: tutor counselor (initial tutoring and subsequent counseling), support of regional center, and residential schools
- 2000-present: module-based subject tutor, support of regional center with additional educational guidance team, and decline of residential schools
- 2014 onward: local based module tutor, program-wise national student support teams offering integrated subject-qualification-guidance support through phone and email (moving away from geography as the factor of learner support organization to subject and qualification-based support); end of student support as separate from course design, taken over through ICT

In case of the Indira Gandhi National Open University (IGNOU, India), which has the second largest distance education system in the world, and which was designed on the pattern of UKOU (i.e., headquarters-regional centers-study centers), learner support has undergone considerable changes, since its functional operation in 1987, in three distinct phases:

- Phase 1 (1987–1996): The regional support and other academic support units at the headquarters operated through regional centers in each state, which in turn operated through study centers and work centers (i.e., the contact point of students).
- Phase 2 (1996–2016): Besides the HQ-RC-SC model, the media center (with state-of-the-art media infrastructure and a dedicated educational satellite uplinked from the center) and the academic schools of studies also directly interacted with students for academic program-specific tasks.
- Phase 3 (2016-): Gradually, the open university centralized most administrative and organizational support at the headquarters, operated through technologies; and many study center academic and associated activities were handled by the faculty at the headquarters through the use of technologies and networks, though

the activities of academic counseling and practical continue at study centers/work centers.

In case of online learner support, in his theoretical framework, Rekkedal (2008) presented a case from NKI, Norway, comprising five stages of distance learning (along with support needs, responsibility center, and technology to address the support needs).

- Prospective phase: course choice, financial, practical aspects; generally handled by administration; with use of technologies like print, broadcast media, and Internet.
- Start-up phase: registration, material dispatch, induction, and follow-up; generally handled by administration with some faculty support; and through surface mail, phone, and email.
- Learning phase: (i) teaching, tutoring, academic support, social support, and assessment; by faculty; through phone, email discussion forums; (ii) practical support, technical support, resource library, learning groups, and local support; by administration and local faculty; and through F2F, phone, and email.
- Graduation: diploma accreditation; by administration; F2F.
- After graduation: further study, job opportunities, and alumni services; generally handled by administration; mix of print, F2F, Internet, and forums.

In case of online learning, Contact North-Contact Nord, Canada, outlined an eight-characteristics framework from online students' perspective (CN-CN, n.d.), which should be useful to other institutions and their faculty:

- Purposeful: learner support as integral part of institutional mission and strategic objectives
- Transparent: clear nodes and standards
- Accessible: seamless and 24 × 7
- Responsive: individual need-based, with definite turnaround time
- Interactive: interaction with institution, faculty, staff, and content
- Self-directed: independent skills and management
- Integrated: integrated across functions
- Open to change: prone to updating by new cohorts and by new changes

Based on the ARCS (affective-reflective-cognitive-systemic) model, a comprehensive analysis of various learner support frameworks in Asian distance education was undertaken by Jung and Hong (2014). In their revised model, and especially in relation to gender, the researchers located a five-variable support framework with associated subvariables (and which needs to be seen in relation to Tait, 2000):

- Affective: social, political, and emotional
- Cognitive: content, tutoring, assessment, and self-learning strategies
- Reflective: assistive guidance, developmental guidance

- Systemic: policy support, customized support
- Gender: life skill development, confidence building, and policy and learning environment

Given these and many institutional frameworks and subsequent changes in learner support systems due especially to technology sophistication, the traditional roles and competencies of distance teachers and tutors have also undergone significant changes. A tutor or online instructor undertakes all or most of these roles: designer, technologist, content expert, instructor, assessor, researcher, mentor, facilitator, adviser, colearner, and manager (Panda, 2019); therefore, continuous training and professional development inputs are essential to sustaining an effective support system.

Technology and Learner Support

As discussed above, the traditional distance education learner support system was based on the tasks of tutoring (F2F or technology-mediated), counseling (F2F or synchronous), organization of study center activities, and interaction through conferencing and interactive radio/TV. This model has undergone considerable changes in the past decade at the behest of the semantic web, availability of synchronous and asynchronous technologies, and related research on online and offline interaction (Table 4).

Across various synchronous technologies (including telephone, conferencing, and chats) and asynchronous technologies (including SMS, email, among others), the following four powerful technologies have been proved effective in facilitating reflective and inquiry-based learning.

- Blog: for *individual* articulation and reflection (Jimoyiannis, Schiza, & Tsiotakis, 2018; van Wyk, 2018)
- Wiki: for *collaborative* projects and collective/community reflection (Biasutti & EL-Deghaidy, 2015; Huang, 2019; Kim & Kim, 2020)
- Discussion forum: for *critical* discussion and inquiry-based *reflection* (Chaka, Nkhobo, & Lephalala, 2020; McDougall, 2015; Wu, 2021)
- E-Portfolio: for *self-critical reflection* and *self-management* (Chaudhuri & Cabau, 2017; Jenson & Treuer, 2014)

Table 4 Synchronous and asynchronous media vis-à-vis types of interaction

Interaction	Synchronous	Asynchronous
1. Learner-content	Teleconference, interactive radio, and virtual class	Interactive multimedia, web-based interaction, and facsimile
2. Learner-instructor	F2F counseling, telephone, chat, teleconferences, and interactive radio	Email, sms, discussion boards, facsimile, and online LMS
3. Learner-learner	Self-help group, chat group	Email, mail list, discussion board, facsimile, whatsapp, facebook, and online networks

It had been appropriately pointed out by Brindley et al. (2008) that, in case of traditional distance education, course production and learner support were distinctive activities which have now been blurred in the case of online and blended learning. When Tait (2000) and Simpson (2000) conceptualized and analyzed learner support at the time of the second generation distance education, various academic support and nonacademic guidance and support (including study skill development, feedback mechanisms, and graduate follow-up) were considered crucial. In the present context of Web 4.0 and changing institutional transformation, learner support has undergone considerable change. Tait (2014) revisited the reconfiguration of student support in the digital age, almost after one and half decades. Tracing the history from the earlier printed resources (didactic conversation), through the postal system and the telephone communication (synchronous conversation), and radio and television (radio wave) to the digital age (synchronous and asynchronous communication), Tait (2014) underlines that institutions have moved away from the behaviorist model to the constructivist and the connectivist, and that the earlier separation between course creation and learner support had resulted in “an integrated part of the overall curriculum design and learning and teaching system” (p.9).

It is worth noting that while there is still continuance of the traditional learner support models in a large number of distance teaching institutions, “the need for (such) reassessment is due both to the fact that while practice has moved on, scholarly analysis has not adequately done so, and secondly that practice itself in some second generation distance teaching institutions has not yet fully made the far-reaching changes that the digital revolution offers” (Tait, 2014, p.5). What has come up in the above analysis is that student success (or even dropout) is largely dependent on “effectiveness of learning design” (in which learner support is embedded), irrespective of the mode of (F2F, distance, and online) delivery. Further, the technological development of learning/learner analytics makes it easy to embed learner support with learning design, and to diagnose and facilitate student learning at every now and then, instead of waiting for periodic intervention (as in case of the traditional support model).

Management of Learner Support Services

Given the policy, plan, and infrastructure for a working learner support system, it is the actual implementation that matters – and how the entire process is managed and with what motive. The traditional as also the contemporary management of mass distance education (including MOOCs) was greatly influenced by what Peters (1983) described as the industrialized system of education – where there is hierarchical model of organization with line authority, line management, specialization of tasks and skills (and division of labor), centralized authority, dominance of interests of the institution, and quality control (subsequently, assurance). Subsequent changes went beyond the analogy of the machine to the analogy of the living organism and included the following: subsystem complexities, open system in constant interaction with the environment, diverse and flexible regulatory system as per changing environment, multiple ways of achieving the stipulated outcomes, and to be open

and flexible enough to deal with the changing environmental challenges. In the distance education system, these entities operate too; there existed divisions in the traditional teaching functions including student support; and therefore there is a need that these discrete functions and changes operate in a coherent manner for effective teaching-learning, learner support, and quality of student learning.

It may be underlined that learner support in the traditional distance education (especially open university) delivery model was considered as part of institutional management. This functioned within a decentralized and distributed (and sometimes franchised) framework in which study center core activities of tutoring and counseling were *less visible*. In the case of online and blended delivery model, it forms an integral part of curriculum and assessment, with more faculty and student control, and is therefore *more visible*. Today, with more of accountability perspective and privatization dominating the institutional decision-making basket, education is being treated as a service industry and a tradable commodity, and students being treated as customers or clients. The humane and integrated personality development discourses have been considerably diluted to produce skilled knowledge workers in the knowledge economy. Distance education and the concomitant learner support have also been subjugated to this discourse. Therefore, it is not surprising that economy of scale and cost-efficiency have often dominated decision-making on how distance students should be supported. As an offshoot, the learner/learning management system (including learning center and technology management) has been more “administratively” viewed. There is therefore a need to relook at the balance between leadership and administration imperatives, on the one hand, and faculty and student voice, on the other.

Issues, Challenges, and Suggestions

Stemming from the above discussions are some selective critical issues which distance educators, tutors/instructors, and institutional leaders need to address, especially in the changing context of globalization, technologization, and twenty-first century learning.

Independence Versus Interaction

The debates on “independence versus interaction” were captured by Daniel and Marquis (1979) in their seminal article in which issues relating to pedagogic (learning), social (community), and economic (cost-efficiency) dimensions were discussed. While more interaction was to increase not only cost but also social learning and social development, more independence was to decrease not only cost but also social learning. Distance teaching institutions had to make decisions to have the right mix, balancing institutional and student interests. When the debate started, interaction and communication did exist in forms of real and simulated communication (real at study centers, and simulated through self-learning materials) (Holmberg, 1989), though Daniel and Marquis (1979) referred to “human communication.”

Both intellectual articulation and quality studies have underlined interaction as essential to “quality” learning (alongside independent study). On the other hand, distance teaching institutions struggle hard to ensure independent study (self-learning) in contexts where most learners do not have required study skills for self-learning, thereby demand for more interaction (meaning, more direct lecturing by teachers/ tutors at study centers, and through video lectures and teleconferencing sessions). This suggests that serious institutional scholarly policy decisions need to be made, on the one hand, to provide for mechanisms that facilitate independent study skills of learners, and on the other hand, ensure that interaction does not largely result in one-way communication from the peer or tutor or the mentor. At the same time, interaction also needs to be built into independent study of self-learning resources. This is clearly supported by the equivalency theory of Anderson (2003) that, given the three types of interaction (learner-content, learner-teacher, and learner-learner), “an instructional designer can substitute one type of interaction for one of the others (at the same level) with little loss in educational experiences” (p4). Even the student-teacher interaction can be minimized (with reduction in cost) and quality of learning maintained, in consideration of a variety of types and mixes of interaction that Anderson (2003) articulated.

Culture and Learner Support

In any educational context, and especially in open and distance learning where it is difficult to ascertain the cultural differences in goals and attitudes of learners, it is important that, besides addressing the psychological and technical distances, more of sociocultural distance is studied and addressed to. There are differences in the goals and attitudes of learners, influenced by the goals and attitude to education of their own culture. Gunawardena (2014), while underlining that there are individual differences in the goals and needs among students, exemplifies cultural differences and expectations between the western world and the global south. While in the western world the stress is on understanding the world and achieving personal goals of excellence, in the nonwestern world generally the emphasis is given to respect for elders/teachers, moral development, and contribution to the society (and development of skills to address those). Also, while in the former, there is stress on individual excellence but in a collaborative and experience-sharing environment, in the latter, students often work individually (without much collaborative engagement), though find comfort in community values and ethos. Teaching-learning therefore needs to address the cultural and linguistic affiliation so as to remove isolation of students and increase institutional and cohort affiliation. This is more so in online learning where diversified groups of students with cultural, age, gender, language, and socioeconomic status differences interact in the same course of study. There are also other critical feminist, queer, and disability perspectives to address to. This is where learner support is intrinsically associated with curriculum design, teaching-learning, and assessment. It therefore requires clear guidelines, transparent communication, and individualized counseling support and mentoring.

Gender and Learner Support

With more opening up of societies, gender issues are being articulated in a more transparent and just manner, more so in case of technology-enabled learning. In the context of traditional nononline form of ODL, deeper research and analyses are needed on cultural socialization, gender (across ethnic, class, educational backgrounds), and open distance learning, and the nature of support that could be appropriate and most effective. This could be extended further to the context of online learning (both synchronous and especially asynchronous) where there is more possibility of flexibility, voice, and collaborative reflection. Other areas of concern are access and gender equity, and technology-gender-online learning (Gnanadass & Sanders, 2018). Moreover, gender in distance education is also viewed not only from the perspective of access and equity, but also from the feminist perspective. A recent work on gender and distance education (Aneja, 2018) could be useful in further articulation from the points of view of: democratization from a gendered perspective, feminist pedagogical perspectives, and gender and social media in distance education (learning and support). For an elaborated model, also see Jung and Hong (2014).

Disability and Learner Support

Almost each nation has now a legal/constitutional policy for the disabled, and their education and training. Higher education institutions have been constantly struggling to facilitate education and learning for the disabled – there are distinguished requirements for visual, hearing, and mentally impaired adults, as also for those who are physically challenged and have learning disability. There are access and assistive technologies available, and the universal design for learning (UDL) promises cognitive/academic access across peer groups and across programs of study. Quite often, the facilitation gets limited to physical access to resources (digital and otherwise), technology (enabled learning), and human assistance. There are also other disadvantaged groups who need support, which is often limited to special study centers, special provisions, and special concessions like fee waive and reservation for them. In the institutional arrangement for addressing the access needs of disadvantaged distance learners, we have almost neglected the quality of learning and support interventions, which are generally left to the students themselves to deal with, and which therefore need to be institutionalized.

Technology-Enabled Learner Support

In spite of massive technological developments and institutional technology provisions, two practices remain as concerns, and which need to be addressed through institutional policy and leadership. First, even if many institutions have entered into (sometimes sophisticated) online learning, the traditional distinction between curriculum/ course design and learner support still persists. Second, massive technology deployment still stands as supplementary to media-mix, and media has not been “integrated” into curriculum design, course delivery, and learner support. This

represents a patchy work (and could be considered more as “market-driven”) without due consideration to support across a student’s learning trajectory (to be considered as more “pedagogy-driven”). For example, one may consider scaffolding for constructivist inquiry (McLoughlin, 2002), instructional design strategies (Schutt, 2003), factors in scaffolding at-risk students in blended learning (Hughes, 2007), activity design for online blended learning (Macdonald, 2008), alignment in authentic online learning (Parker, Maor, & Herrington, 2013), four pillars including scaffolding with technology (Babacan & Thurgood, 2021), and designing learning experiences that are personalized, interactive, immersive, framed by microlearning, and skill-based (Guralnick, 2021), among others.

Ethics of Learner Support

Given that the main concern of distance education is access, equity, quality, lifelong education, and employability, there are ethical concerns relating to inclusiveness, nature of participation and support, institutional goals and support provisions, and fair decision-making. Visibility of professional ethics gets delayed in the traditional model of learning material and study center-based delivery and support, where as in seamless online distance learning, professional ethics is transparent and its visibility is immediate. Ethics embraces a larger canvas: institutional policies and plans of action, student autonomy and choice, faculty out-of-box concerns and actions on learner support (which is at times at odds with institutional plan and provision), and public/other stakeholder support for distance education (including parity of esteem). There is a need for provision of wider course baskets and media baskets to choose from; and also that the degree of openness and flexibility provided to the students forms part of ethical consideration and commitment. Tait (2000, 2003) had strongly argued for leadership and faculty introspection on issues relating to top-down/bottom-up learner support and the democratic concern of student voice. This concern for voice is much above the usual client feedback and student satisfaction surveys. Kelly and Mills (2007) talk of (ethical) conflict in “being fair to all students and being responsive to individual student needs” (p.150). The authors point to ethical underpinnings in three important areas – institutional access and admission policy, teaching and learner support, and governmental policy – and caution us about the usual uncomfortable trade-offs. Here, two issues assume considerable importance:

- First, in a competitive market, for institutions to attract students is important, but more important is to support them to ensure that they succeed. This also involves appropriate and sufficient information counseling for prospective students to make informed choices, and also to facilitate their study skills.
- Second, in case of an open admission policy, there is an ethical danger of either compromising quality or accepting high rate of dropout. Therefore, the claim to parity of esteem needs to be seen from an ethical perspective too.

Quality and Parity of Esteem

The dual-mode universities have generally added open and distance (and online) learning to their profile in the name of access (or even increasing the gross enrollment ratio); therefore, services offered to the students are generally an add-on. It may be construed as unethical for distance teaching institutions to treat ODL as an add-on and to increase Gross Enrollment Ratio, and not able to provide for all types of support to their students that a full-time campus student gets. Conversely, it is unrealistic to ask those students to travel to mainstream campus to access those services like personal advice and counseling, career guidance, library resource support, and computer and other lab facilities (LaPadula, 2003). Will it then be fair to talk of “parity of esteem” and equivalence in quality?

Research

Decision-making for learner support systems must be based on research. Considerable research studies on learner support in distance and online learning have been undertaken during the 1980s till the first decade of this century, though the subsequent research studies focused more on technology-enabled “learning” (rather than “support”). Reviews and research analyses on learning/learner support may be accessed from Robinson (1995), Salmon (2000), Simpson (2000), Lee (2003), Brindley et al. (2008), Macdonald (2008), Jung and Hong (2014), Zawacki-Richter and Naidu (2016), Sanchez-Elvira Pariagua and Simpson (2018), Kara, Erdogdu, Kokoc, and Cagiltay (2019), and special issues of *The International Review of Research in Open and Distributed Learning* (2003, 1), and *Open Praxis* (2014, 1). Robinson (1995) had long back underlined that research should focus more on theory building as also building on the existing research systematically. Besides this important consideration, review of the research studies on learner support in ODL points to the following further research questions:

- How do students learn and what contribution do a variety of interaction and tutoring make to their learning vis-à-vis their behavior, needs, motivations, and study approaches? What are the various models to effectively combine student-independent study and their (online) interaction and engagement?
- What could be the most effective learner support with social technologies and social networks? What effect does social technology-based learner support have on student-independent self-regulated learning and self-directed learning?
- What are the most appropriate and effective support strategies in course-based and MOOC-based educational programs, and how to support such learning to be more interactive and engaging? What impact does such learner support have on student study, dropout, and success?
- How do interaction and knowledge construction take place in an online and/or blended learning environment, and what support and scaffolding strategies could

be used to facilitate voicing opinions, questioning, participating in interactions, self-review, peer review, peer mentoring, inquiring and reflecting, and confidence building?

- What is the future of learner support in distance, open, online, and blended learning, and especially in the context of Covid-19 and post-Covid (when especially the teachers and tutors have had considerable experience and expertise in dealing with remote teaching)? How do the variables of culture, gender, and learner support interact for satisfaction, confidence building, and learning?
- In what different ways the new technology innovations like artificial intelligence, Internet of things, machine learning, and learning analytics could be put to practice in enriching the quality of support, personalizing support, addressing the institutional administrative-academic-support “system” in an intelligent flexible manner, and in ensuring cost-effectiveness and cost-efficiency?
- What additional and changing competencies teachers and instructors need to develop for quality learner support in the changing contexts of open education, open pedagogy/teaching, and open educational practices? What about teacher/tutor attitude, perception, and development?
- What best institutional provisions can be ensured for quality support and quality student learning – relating to access, adequacy, effectiveness, institutional culture, administration and management style, infrastructure, and networks?

Conclusion

In future, distance learning organization and delivery is poised to shift from the study center-tutorial-learning materials model to more of resource based-networked-individualized and collaborative model, and a shift in the focus from “learning material” to “interactive learning and support system.” Digitalization of operation and services could ensure more transparency, efficiency, and learner-friendliness. Institutional leaders will continue to grapple between access and equity, on the one hand, and efficiency and quality, on the other. Serious introspection is needed in respect of institutional preparedness for technology-enabled learning – moving beyond adequate and effective provision to more of integration, and pedagogy-determined and learner-friendly operation. Mere provision is not enough; it needs to be operationalized and equitably distributed, and continuously grappled with. The recent experiences of remote teaching and support during Covid-19, though enriching in terms of keeping the process going, compel us to seriously relook at the organization and delivery of online and blended learning, vis-à-vis student engagement and quality of learning and learner support.

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