

Paradigm Shift in Open Schooling

Open and Distance Learning (ODL): Bringing Learning to People

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Abstract:

Education has seen many shifts and developments over the years. This may be ascribed to challenges, needs of the time, and peculiarities. Open and Distance Learning (ODL) has come a long way in the past few decades. It has been a major game changer in the way education is imparted, and it is becoming increasingly popular.

ODL has opened up a whole new world of possibilities for students who would otherwise not have had access to educational resources. ODL reaches a more extensive group by offering flexible choice of subjects, learner-centered paces and places. This has resulted in a shift in students' roles in the distance learning mode of education from passive to highly interactive. This article tries to find out with reference to NIOS (an Indian ODL Institute) how ODL caters to the needs of a learner and its flexibility in incorporating changes offered in less time than the regular schools.

The advent of the 21st century, with its technological advancement and innovations, opened new arenas in education. This article will discuss the paradigm shift in open and distance learning highlighting the past scenario of ODL, the present scenario and the future expected developments.

The article also finds the role of ODL during Covid 19 pandemic, when the entire education system shifted to a virtual distant mode, and further, how the National Institute of Open Schooling (NIOS), an ODL system in India, incorporated various media tools to reach the learner in the remotest part of the country during complete lockdown, marking a momentous shift in a short time and with no prior inkling of imminent change required.

However, ODL still needs to improve efficiency, equity, quality and benchmarking. Moreover, ODL has to research and incorporate the other shifts such as collaborative education, incorporating independent practical work, promoting creativity and innovation, out-of-the-box approach thinking skills and many more. Therefore, this article also explores the present paradigm shifts and required paradigm shifts in ODL.

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“Knowledge is not power; knowing a concept is only potential value. The execution of knowledge is where the power lies.” (*Tony Robbins*, American author and philanthropist)

The educational paradigm is a framework that contains fundamental assumptions, ways of thinking, and methodology generally taken up by scientific and pedagogical groups. In, *The Structure of Scientific Revolutions* (1962), Kuhn elucidated, “Paradigm shifts arise when the dominant paradigm under which normal science operates is rendered incompatible with new phenomena, facilitating the adoption of a new theory or paradigm.” (Kuhn, 1962, pg 54). Education has seen many shifts and developments over the years due to challenges, needs of the time, and peculiarities. The establishment of ODL started with a paradigm shift from the guiding thought of you learn what we offer to, we offer what you want to learn. (Module 1, Historical and Philosophical Bases of NIOS Operations, p.3)

ODL is over a century old. Initially, it was education by correspondence, as communication occurred through printed media and the mail system. However, the world has been in the process of structural transformation over the last 20 years. This multidimensional and structural transformation is associated with the emergence of a new technological paradigm based on information and communication technologies (Castells, 2006, p.3). As a result, there has been a string of innovations, methodologies, approaches, and policies to address turn arounds in society. Today, almost all forms of communication in ODL involve electronic communication.

ODL is a user-friendly system which reaches a more extensive group by offering flexible subjects. ODL operates on learner-centered philosophy, flexible design of courses/ subjects, attention to individual requirements, and removal of barriers. Moreover, it allows students to learn at their convenience and pace. More than other forms of learning, ODL places emphasis on the learner, the learner’s needs, and interests. These features transform the role of students from passive to highly interactive in the distance learning mode of education. Hence, the ODL system attends to individual and societal needs regarding learning, where to learn, and how to learn. In the words of Illich, a social critic (1972 & 75), “A good educational system should provide all who want to learn access to available resources at any time in their lives, empower all who want to share what they know to find those who want to learn it from them.”

However, ODL still needs to improve efficiency, equity, quality and benchmarking. The students from the ODL system generally need higher acceptability in reputed traditional Universities for higher degrees. In addition, finding gainful employability is a herculean task for them. The UN Millennium Development Goals emphasise education for sustainable development. Therefore, there is a need and demand for innovative methodologies and programmes in the ODL system that meet the quality requirements of the large and diverse communities of the country for overall development. ODL must further research and incorporate collaborative education, independent practical work, creativity and innovation, out-of-the-box approach thinking skills and many more features. Therefore, the article explores the present paradigm shifts and required paradigm shifts in ODL.

Moreover, the article discusses the paradigm shift in open and distance learning, highlighting the past, present, and expected future developments. The article also points out the role of ODL during Covid 19 pandemic with reference to NIOS, an Indian ODL organisation, when the situation shifted the entire education system into virtual distant mode, and further, how NIOS incorporated various media tools to reach the learner in the remotest part of the country during complete lockdown marking a tremendous shift in a short time.

HISTORY

ODL has been around for centuries, but it took off only in the past few decades. The concept was first introduced in the 19th century when universities and colleges offered correspondence courses. The idea was simple: Students would receive course material from the institution, study it and then submit assignments through mail.

This was a revolutionary idea at the time and allowed students to access educational resources which were otherwise out of their access. However, this approach had its limitations. For starters, it was slow and cumbersome. Also, there was no direct interaction between students and their instructors.

Despite these limitations, ODL was still a great way for students to gain access to educational resources. This was especially true for students in remote locations who would otherwise have had no access to educational resources.

Fast forward to today when ODL has come a long way. The internet and the proliferation of online learning platforms have revolutionised education. Today, open and distance learning is more accessible than ever before. Students can access course material from

anywhere in the world via the internet. In addition, interactive tools, such as video conferencing and online discussions, allow students to interact with their instructors and peers. Furthermore, open and distance learning has become more affordable. Many universities and colleges offer online courses at discounted rates, making them even more accessible to students. In addition, many free online courses are available on the internet, making open and distance learning even more accessible. All of these factors have made open and distance learning a viable option for many students.

The historical development process of distance education environments represents how distance learning technologies have evolved through the years. (Williams, Paprock and Covington, 1999, pp.3-5). The authors indicate the historical development process of distance education environments by using a figure below (1999, p.4).

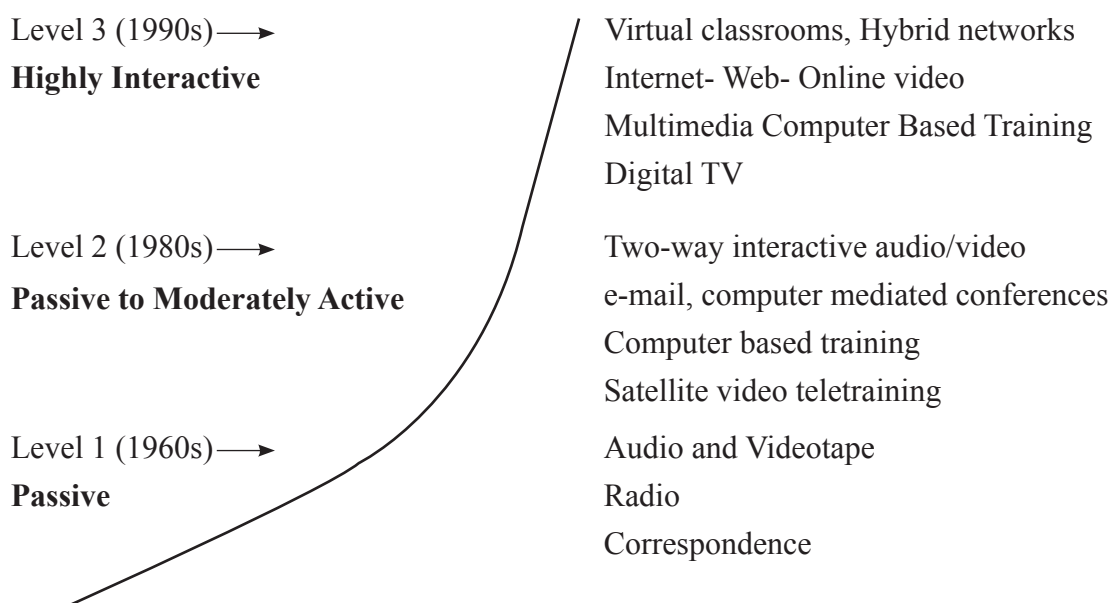


Figure: 1 Distance Education Continuum

Figure 1, Distance Education Continuum, describes Level 1 as passive distance learning. Therefore, the students need to have a chance to interact. This type of environment is called an asynchronous distance learning environment. Level 2 is also passive to moderately active distance learning. These distance learning environments are synchronous being the two-way interactivity. Lastly, Level 3 is highly interactive, consists of hybrid distance learning environments in addition to the capabilities of the Internet (Williams, Paprock and Covington, 1999, pp.4-5). Online training, computer-assisted learning, web learning, virtual learning, and digital training are the different

types of information and communication technologies used in ODL (Punnie & Cabrera, 2006, p.17). With the gaining speed of technological changes, a paradigm shift in distance education is still to be envisaged.

In future, it is expected to see more interactive tools being integrated into open and distance learning. For example, augmented reality and virtual reality tools can be used to create immersive learning experiences. These tools can also be used to help simulate real-world scenarios and provide students with hands-on experience. Moreover, more personalised learning experiences could be included. For example, with the help of artificial intelligence, online learning platforms can customise courses to suit students' individual needs. This will enable students to learn more efficiently and effectively.

CAPTIVATING FEATURES OF ODL WITH REFERENCE TO NIOS, AN INDIAN ODL INSTITUTE

- (i) Learner-Centered Approach:** ODL works on the principle of equal opportunity removes the traditional barriers to education, such as economic constraints, gender-specific educational practices, gender inequalities, unfavorable socio-cultural milieus or membership of minority groups, physical handicaps, or special needs. Recently, NIOS, an Indian ODL Institute has started Live Virtual Session on Indian Sign Language for deaf and hard-of-hearing learners. Although NIOS has been broadcasting sessions for deaf and dumb people for a very long, This is a step ahead in the field as it offers Virtual Open School for learners with special needs. In addition to it, the NIOS has launched the principle of open curricula, accommodating unforeseen developments and changes. Furthermore, NIOS trust in the principle of learners' relatedness allows mapping learning according to their value perspectives, interests, and experiences and is not to be stipulated rigidly.
- (ii) 21st Century Learning Skills:** The 21st century learning skills like knowledge, life skills, career skills, thinking skills, creativity, problem-solving, self-direction are pivotal for students' success in the present world. These skills are crucial, especially when they shift from one phase to another, like school to college, college to the workplace, and adult life. The great thinker Swami Vivekananda said, "You cannot teach a child, you can only facilitate his/her learning, just like you cannot grow a plant, you can only facilitate its growth by loosening the soil, allowing sunlight, and providing water." In the light of this statement, it could

be said that ODL caters to the needs of a learner to a great extent as it facilitates learning, is flexible enough to incorporate the changes offered in lesser time than the regular schools.

- (iii) Autonomous Learning:** The conventional education system superseded the autonomous learning capabilities of learners. The recent educational philosophies also focus on the importance of learner autonomy, an essential 21st-century learning skill. ODL promotes autonomous learning by identifying the needs of learners and setting goals to address those needs. It also identifies experts and mavens in the domain to follow and get inspiration from, curating appropriate resources to achieve the learning goal, enabling learners to process and apply the appropriate learning strategies, and finally evaluating learning outcomes. The NIOS works on the principle of autonomous learning, which allows learners to organise their learning themselves. This entire process can be seen in any book of the NIOS, where the materials are presented to promote autonomous learning. The NIOS is a versatile provider of school-level education. The feature offered by the NIOS that those who choose to take conventional subject combinations are free to do so and can thus migrate to the conventional schooling system. The NIOS provides learning opportunities characterised by features unknown in the conventional classroom teaching, which has no parallel in the country as it offers synchronous and asynchronous autonomy.

Moreover, it addresses the requirement of autonomous learners by promoting mind maps and various other learner support material. Moreover, the live sessions broadcasted allow the viewers to ask their doubts and queries via email, phone, or message in the live session.

- (iv) Eclectic Approach:** The new education policy 2020 of India focuses on the vast paradigm shift in education. For example, a curriculum for at-home learning, the choice for students to pursue diverse subjects, and a credit system that they can utilise even if they pause their studies. The NIOS, an ODL body, much before NEP declared these changes in the traditional education system, followed it in spirit. The conventional schools offered a limited number of subjects whereas ODL gives many choices to them, including vocational subjects. The NIOS offers considerable diversity in the subject selection. It is an innovation introduced by the NIOS much earlier because it allows studying vocational subjects with academic subjects right from the beginning. An NIOS student may take a language, two

academic subjects, and two vocational subjects to claim a secondary or a senior secondary certificate. The NIOS has offered what the conventional schools are finding challenging to offer. The eclectic approach helps the learner choose any subject according to their interest and need, which is the most helpful and the best. The learner is free to choose any subject or combination that is otherwise not offered by conventional schools. Some of its vocational courses (stand-alone subjects) are combined with academic subjects for school certification at the secondary and the senior secondary grades. This approach has become viable primarily because open schools do not have age restrictions. Therefore, a significant proportion of open school learners are adults who do not necessarily seek registration at a college or university. They are motivated to learn for self-improvement by upgrading their qualifications and certification.

- (v) **Lifelong and Ubiquitous Learning:** The NIOS believes in the principle of lifelong and ubiquitous learning, which means learning is not bound to various stages in one's life, nor to locations or timings. The NIOS makes it possible to learn at anytime and anywhere. The Swayam Prabha, e-Vidya 10, and e-Vidya-12 channels address the principle of lifelong and ubiquitous learning. The course contents developed by NIOS is free and openly available, suitable for all levels, and reusable. These broadened the coverage of the curriculum, teaching, and learning methods. In addition, these resources provided learner support in times of stagnation. These resources increased learners' interest in the subjects taught, improved confidence, accelerated independence, and self-reliance increased experimentation with new ways of learning, and paved the path for future learning. Yet, there is an urgent need to prepare quality OERs to address the need of the present time. NIOS also have a digital library to address students' needs in a distant mode.

NECESSITY OF PARADIGM SHIFT IN INDIAN CONTEXT

The Indian education system to respond to the global demand needed a paradigm shift from the emphasis on de-contextualisation to contextualisation and separation to integration. It also requires a shift from the general to the specific, from objective to subjective, from reliance on experts and outsider knowledge to insider knowledge, from the focus on control to focus on understanding, from top-down to bottom-up, from standardisation to appreciation of diversity. The most needed paradigm shifts

in education to meet global expectations are career guidance, 21st-century learning, flipped classroom technique, project-based or problem-based learning and training. Unfortunately, the teachers in conventional schools followed anomalies; practices deviated from standard and expected, which led to failure in learning as per the expectations and assumptions of the present paradigm operated by the schools. Therefore, it was time-led demand to shift institution-led learning to own-time learning at a distance, i.e., from teaching to self-paced learning. In addition, indirect instructions and media use were the hour's need, which ODL nicely addressed.

ODL-NIOS DURING PANDEMIC

The difficult Covid 19 pandemic situation shifted the entire education system into a virtual distant mode. Eventually, In India NIOS, an ODL body, emerged as pioneers with classes on the Swayam Prabha channel. Incorporating various media tools to reach the learner in the remotest part of the country during complete lockdown was a significant shift in less time. The NIOS mapped experts all over the country and, with advanced techniques, broadcasted the best classes by the experts. In a formerly impossible way, the experts needed not to visit any studio. Instead, they delivered the lessons from the safe corners of their houses without any interruption during the lockdown. The students in the nooks and corners of India to the big cities were benefited from these classes. Usually, the NIOS delivers classes on SWYAMPBABHA, e-vidya 10, and e-vidya12 regularly to benefit the students. The students who have no access to good teachers can take the classes delivered by the experts in the subject.

FUTURE PARADIGM SHIFTS IN ODL

- (i) **Cooperative Learning:** Cooperative learning is one of the crucial goals that is believed to be challenging ODL is . However, it could be implemented in the ODL system successfully. ODL can use some practices which will promote coordination, interdependence, and accountability. Generally, formal cooperative learning practices are easy and effective, and successful in all types of learning situations, i.e., online, hybrid, blended, in person, and offline. Although it initially appears challenging in distance education, using different tools discussed in this article will make it possible to implement it effectively. Keith Bachman (Corporate eLearning Executive, W.R. Hambrecht, and Assoc.) has rightly commented, “In times where small instructor-led classrooms tend to be the exception, electronic

learning solutions can offer more collaboration and interaction with experts and peers, as well as a higher success rate than the live alternative.”


(ii) Activities like online polls during a class can add a new flavor to ODL.

The learners can poll to share their thoughts, feelings, attitudes, opinions, or judgments. The learners can be divided into groups and could be given group work using collaborative tools. Today, several tools are available to promote collaboration online. In breakout room sessions, a larger group is divided and sent into their own virtual space, where a practical and successful educator plans well-defined tasks and roles within a group to guide them. Student interaction and cooperative learning are the focused learning outcome in such groups. Online quizzes during the class can also help to promote cooperative learning in a large group. Additionally, peer interaction opportunities are also considered to be one of the best practices.

(iii) Critical Thinking Skill:

Critical thinking is one of the essential skills which need to be incorporated into the education system. Critical thinking aims at self-guided and self-disciplined fair-minded thinking, which is goal-oriented, enquiry-based, and qualitative. The institutions and different educational plans entail incorporating and training students to stimulate critical thinking to make the learning relevant. Critical thinking encompasses the attitude, purpose and effort of a person. It is then a herculean question to answer how it can be encouraged in a distant and open mode of teaching and learning. However, it is not as big a question as considered. The ODL format is a productive platform to nurture critical thinking because various boulevards can engage learners in activities that nurture more profound, more significant thinking. Marie Thielke Huff, in her research (2020), found that there was no significant difference between the two groups, i.e., distance and traditional classroom, in implementing critical thinking skills. Various activities can promote critical thinking in the ODL format too. For example, students discuss the same problem in online discussion boards and negotiate for possible solutions and ideas. The discussion question can be elaborated to help students to relate it to the outside world. It can be done asynchronously and synchronously effectively. The teacher and learners can respond to each other’s discussion points from the convenience of their home as per their free time. A teacher can ask various types of questions to make learners address problematic argumentation, elaborate on vague ideas, or think






through the implications of their assertions. Furthermore, providing appropriate supplement resources can also help students to identify current challenges and think for potential solutions. Case studies can also be used to promote critical thinking in ODL. The NIOS has some case studies in the learning material, but they need to be presented more effectively to make it result-oriented. For example, an Interactive Television Course can be set by the side of a face-to-face course.

- (iv) **Creativity:** The new educational paradigm focuses on increasing the time for independent and practical work of students; this will promote creativity at large. Today many tools offer online laboratories. Furthermore, such tools can be used to promote creativity and independent work of distant learners. The practical use of knowledge will lead to the development of skills, i.e., to mark out a problem, explain its central point, reveal cause-and-effect relations, plan ways of solution, carry out experimental inspection, model, analyse, and choose the correct decision.
- (v) **Tele-Collaborative Projects:** NEP 2020 suggested multidisciplinary projects and curriculum integration. Such projects are possible in conventional classrooms and can also be constructed in an ODL mode via tele-collaborative projects. Tele-collaborative projects are flexible and provide space for putting the idea into practice. India can also have platforms to communicate, collaborate, and develop projects, and share. Such a tool can be taken up to the level of international collaboration too. In a tele-collaborative project, students collaborate to solve an information problem using the internet. Tele-collaborative projects can be taken up any subject and at any grade level. These projects allow students to integrate technology, share and swap information. In addition, these projects promote the development of critical and creative thinking. The tele-collaborative learning expands the teaching and learning environment by demolishing down the walls of the traditional classroom. The early tele-collaborative exchanges were primarily based on email. However, with advancements in technology, other communication tools like Social Media, Multiuser Dimensions (MUDs), Multiuser Object Oriented (MOOs), Web-based Message Boards, and Videoconferencing can be used to support student interaction.
- (vi) **Mobile Learning:** Mobile learning has opened a new field in education and could bring a paradigm shift in ODL. Mobile is affordable and the most common

tool used by the masses. Therefore, mobile technology can be used with valuable insight into strategies and approaches with memorable practical experiences. Furthermore, ODL has much experience with media-based instructions. Hence, ODL can use the experience to its advantage in developing and applying new information and communication technologies (ICTs) for teaching and learning. In the words of Dr. Marcus Specht, Professor of Advanced Learning Technologies, Open University of Netherlands. “The students of the future will demand the learning support that is appropriate for their situation or context; nothing more, nothing less. Furthermore, they want it at the moment the need arises; not sooner, not later. Mobile devices will be a key technology for providing that learning support.” Doubtlessly, mobile devices will open up new horizons to support learning.

(vii) MOOC (Massive Open Online Course): MOOC is an online course that aims at large-scale participation. MOOCs are the recent development in the field of ODL. MOOCs are symbolic of the recent paradigm shift in ODL as they promote higher learner autonomy, better-structured course content, and increased cooperative and collaborative learning. NIOS must work on MOOCs like Future Learn, edX, Courser, Udacity, and many more to take NIOS learning to the next step. MOOCs have massive enrollments, are open without restrictions, are entirely online, and offer top courses with experienced teachers. In their research, Koller, D., Eriksson, N., & Zhenghao, C. (2015) found that online learners from less educated and less affluent backgrounds reported tangible career benefits from MOOCs. It also designs better measures of student learning and experiments with new pedagogies. As an ODL institute, NIOS must make appropriate choices and domesticate MOOCs as it gives free availability of quality content and focuses on faculty time on learner support.

(viii) Assessment: The ODL system’s assessment is primarily done to provide feedback to learners starting from assignments to the term-end examination. It gives an idea about the gap between the learners’ activity and expectations of the course. In addition, it brings about a sense of consciousness to link the material provided with the activities taken up by the learner. An assessment should be learner-centered and authentic. The credibility and reliability of assessment procedures are a question of serious debate in the ODL system. The learner-centered assessment



methods connect students learning to the assessment process. In simple words, it examines whether the learner has met learning outcomes or not. The authentic assessment methods can reduce cheating. ODL programmes must have befitting bifurcation in assessment. The formative and summative evaluation equally must be considered to the final certification. The learners must understand that all formative or summative activities are necessary for the final certification. Further, it will help them successfully examine their performance and progress to achieve the course's objectives. An appropriate use of tests and quizzes can be helpful to assessment methods if given some necessary precautions to avoid cheating and other undesired activities which hinder the proper assessment of learning. Portfolios/e-portfolios, projects/e-projects, journals, and open-book (partial/full) exams are some methods that can be included to avoid cheating and ensure a more authentic assessment. The students' attendance/participation during the course should also be given due credit. In addition, contact programmes and practical sessions must contribute to the final certification. Finally, the peer assessment of the assignment could also be included.


CONCLUSION

All things considered, from the above discussion, it is clear that ODL has exhibited a significant paradigm shift since its existence to urgent demand during the Covid 19 pandemic. For example, NIOS, as an ODL body in India, efficiently and effectively responded to the critical situation when conventional schools were experimenting to learn. However, ODL needs to revisit the philosophy of openness, i.e., openness to people, places, methods, and ideas, and be adopted systematically. The new paradigm in the field of ODL would be OER-based courses/programmes and MOOCs. Therefore, ODL institutes still need to redesign learner support spaces, deliver personalisation through ICTs and prepare learners for employment, entrepreneurship, and global citizenship. Moreover, it still requires incorporating learning agility: learning, unlearning and re-learning, ultra-learning, google search skills, and AI apps for better learning. In addition to it, some more features and tools, i.e., text to speech, speech to text, machine translation, learning from YouTube, using an app to get the text of audio or video narration, creative and critical thinking, fact-checking, effective learning techniques, time management, learning from MOOCs, and many more are to be explored.

The development in ICET and various mobile applications have opened new possibilities, but the need is to modify them to suit the particular needs and circumstances judiciously. Eliot Masie, an educational technology expert credited with coining the phrase ‘E-Learning’, rightly said, “We need to bring learning to people instead of people to learning.” Another way to look at the term ODL is to consider it an acronym for Open Door to Learning. If a person is ready to open doors of the mind to learn, Open and Distance Learning is ready to offer an infinite world of knowledge and a choice of what s/he wishes to learn, where, and when.

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