#### **Online Learning in Educational Institutions: Issues, Paradoxes and Possibilities**

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#### Abstract

This paper is a reflection on the issues, paradoxes, hopes, and challenges that have arises because of the shift to online learning during the long period of lockdown for protection against COVID-19. Even though the transition was metamorphic with a general atmosphere of appreciation about technology and hopes and optimism are high regarding the future of online learning, but, at the same time, there are still many other considerations that need to be reflected upon before any shift towards online learning is made at the state or institutional level. The paper is broadly divided into three sections: School Education, Higher Education, and Teacher Education, within which specific issues have been discussed.

**Keywords:** *educational technology, learning during the pandemic, online education, educational issues during COVID-19, digital divide, teacher education and the pandemic* 

#### Introduction

The long lockdown period for protection against COVID-19 created unprecedented challenges for schools and colleges to provide education. These challenges ignited the discourse around online learning and pushed teachers into action to seek resources and equip themselves to deal with the situation, fully recognising that schools and colleges will be shut, but teaching and learning needs to continue. When seen from the lens of the students, their lives also suddenly changed in unimaginable ways. They are attending classes, submitting assignments, and being assessed online. A virtual school has been created for students with teachers creating video-lessons, using learning-management software, and working-from-home. Interestingly, these times have also changed the way children now celebrate their birthdays, have parties, and spend time with their families and friends. These changes were expected in the next decade but they are here now and not being prepared for them is what makes them seem so overwhelming.

The immediate response to school and college closure was to transit at metamorphic speed to technology-based learning. In fact, interestingly there is a general atmosphere of appreciation about technology and their high degree of optimism around the future of online learning. But at the same time, even if we keep the impact on mental health aside for the moment, stemming from the sudden change in the daily lives of students and teachers, there are still many other considerations that need to be reflected upon before any shift towards online learning is made at the state or institutional level.

In this perspective paper, an attempt has been made to reflect on some issues and possibilities concerning online learning and the principles underlying them. The idea is to generate discussion, debate and reflection on key issues and assumptions by a wider community. Many of the themes discussed in the sections that follow reflect the issues, assumptions and inherent paradoxes that merit consideration. It is pertinent to point out that they have emerged from focussed discussions with a community of peers, students, administrators, school teachers, and teacher-educators. To systematize the ideas, questions and issues which came up, the present paper is organised into three sections, each pertaining to an important domain of Education. The first section deals with School Education, the second section with Higher Education and the final section with Teacher Education. Needless to say the main objective of this paper is to bring to the fore all relevant discussion and debate to ultimately to inform institutional practices and policy-making processes.

### School education

### Access

Access has emerged as an important theme in the discussions with stakeholders from the rural and urban context. However, their responses and feelings are as varied as the diversity that characterises Indian society. In cities, where there are provisions of internet, electricity, and technological literacy is high, the stakeholders feel comfortable using e-resources for online learning, such as, e-books, videos, podcasts, video-conferencing platforms, and learning management software. Recognising the bleak possibility of resumption of the face-to-face teaching-learning process, the students in cities are gearing up to using these systems and being technologically-native, it is assumed that they can transition smoothly to the online mode of learning.

However, at the other extreme, we have children from the rural and low-income backgrounds who are geographically and socio-culturally separated through generations. They rarely possess a smartphone and have to make do with very slow speed of internet, at best, on which they can barely access some e-resources, largely webpages. It would be elitist if one thinks that the students of rural India can learn through eresources for quite some years. Where resources such as books and other material for off-line learning could still be borrowed or used and shared by different children studying in the same school, online learning demands individualized access to e-resources and availability of multiple devices. Is it possible to use one phone by two or more students along with their parents to attend classes, read texts, type assignments, and watch videos? Moreover, in a household where people live in a single room, finding a conducive space to attend online classes requires some personal physical and mental space, which is an idea that most people in the rural or semi-urban societies may not be familiar with. In addition, considering that the average monthly surplus in Indian rural households is a mere ₹1,413/-(Paliath, 2018), affording internet connections and other amenities (e.g., electricity needed to run gadgets) is nearly impossible. When it comes to educating daughters, some parents do not invest in gadgets for their girl children as they might want them to do household chores instead.

Any such hope can only be fulfilled if we can ensure that every child has access to these devices and other required resources to operate them, has been trained with their operational aspects and the basic know-how of how to use them, along with a dedicated helpline for troubleshooting. Further, to keep children safe online, parents need to be familiarized and oriented about the use and abuse of these devices as well as the internet. An easy but costly way could be a centralized designing of devices for educational purposes for the whole nation which would require a centralized database of essential e-resources. This process has to be data-driven, in which the local data of learners need to be reliably collected to ensure quality education for all. The position vis-à-vis social inequities in terms of access, outcome, and empowerment needs to be carefully chalked out with reference to equity, equality and social justice for all, particularly, persons with disabilities and marginalised communities (Basham et al. 2015). Moreover, there is a dire need to overcome the digital divide (Tewathia, Kamath, and Ilavarasan 2020). Digital divide manifests itself in various forms and aspects, such as the range of the percentage of households (rural + urban) with computer and internet facility for different States 75th NSS Survey (A-74) spans from 4.4% in Jharkhand to 34.9% in Delhi followed by 23.5% in Kerala. Households (rural+urban) with internet facility range from 10% in Odisha to 55.7% in Delhi. Apart from access to computers and the internet, the digital divide is also visible in the abilities of people to use computers and the internet. With the minimum of 8% (10.6% males & 5% females) people in Bihar to a maximum of 42.8% (47.3% males & 37.2% females) people in Delhi have the ability to use computers (NSS Survey, A-76); and 10.9% people (14.4% males & 7.3% females) in Odisha have the ability to use internet in comparison to 50.5% people (55.5% males & 44.2% females) in Delhi. Further, the number of people who actually did use the internet in the past 30 days of the survey ranged from 9.1% in Odisha to 49.1% in Delhi (NSS Survey, A-77). Apart from access and ability to use the internet, the content has to be made available in regional languages so that access of all learners may be ensured. No such data is available in reference to Persons with Disabilities. To fulfil any hope to bridge digital divide, the state must consider the following:

- Access to devices: Affordability of devices might not be a problem in the middle class and upper-class households, but that is not the case with people who, a lot of times, still use outdated phones with which the most people can do is call somebody.
- Access to conditions to use devices: Even if these households do have a smartphone, accessing to monthly/yearly internet subscriptions are simply out of the question. The area must also have network facilities, electricity, etc.
- Access to the technical knowledge to use the devices: Parents of first-generation learners would need a lot of support and people in whose lives technology has not become an integrated part would take time to adjust to the changing scenario.
- Availability of good quality content in different languages: The need for content in regional languages is not only important because people have varied abilities to understand English, but also because there are first generation learners, there is indigenous knowledge which has not been codified in English, and people may choose to learn in a language of their own choice.
- Collection of relevant data for policy-making: Data regarding the number of students in schools & colleges who have access to internet and technology could really help us towards a more grounded policy making process. As of now, there is no such data available to argue either for or against a shift to online classes or the extent to which online learning can be blended into offline learning processes.

### Quality of interaction

In an off-line classroom, a teacher changes the ways of engagement, taking into cognisance the diverse needs of students, the socio-political context, the local needs, and demands of the stakeholders. Further, the teacher has space to address issues and challenges in learning as well as the development of the learner. It would be hoped that online learning would enable the teacher to continue to do the same.

However, such a process is not happening just because a teacher is observant, rather, it is a response of the teacher-community to every student. Teachers meet to discuss, brainstorm, reflect and consult on students' needs and the response that school as an institution may provide (Kanuka 2011). They attempt to humanise the system rather than just doing oneon-one counselling. The emotional and intellectual support that teachers provide to each other cannot be replaced via online discussion meetings. Moreover, a lot of learning and education takes place in the corridors, largegroup meetings, excursions, playground, lunchtime, celebrations of festivals, and taking part in each-others successes, trials, and tribulations.

For such a diverse range of engagement, we need to plan offline engagement between learners, teachers, and the administration. The personal-professional divide is not that clear when one engages with young children and this educative relationship is the central aspect of teaching at school-level that needs to be maintained (Emde, Doherty, & Flynt 2020). Parental intervention in the teaching-learning process also is a big issue in online classes.

### **Classroom** ethos

Another hope that many parents have is that their children will learn at his/her own pace in an online learning environment where time would be saved as the teacher would not have to waste time in classroom management. It is also hoped that the individual learning needs of students will be met in online learning.

However, online learning systems have their own challenges, for example, if the teacher is teaching live, then the teacher cannot ensure that all students are attentive because students either turn their videos off or pretend that they cannot hear what the teacher is saying. Further, students face the same difficulty regarding the pace of the class in an online learning environment as well if the teaching is in a live mode. On the other hand, if learning is taking place via audio or video content, then the student has to wait for the teacher to respond to their queries- if they ever do.

Therefore, online learning needs specific measures to be taken for a smooth learning experience, which does not make it as low-cost as it is made to sound, for example, the person who is responding to the queries needs to be of a level equal to that of the teacher, lest the explanation is incorrect or unsatisfactory. Further, there is a need to develop a basic sense of etiquettes in an online learning environment along with a more in-depth consideration of ethical issues involved in it (Cline 2020).

## **Overcoming institutional dependence**

Open learning systems assume that learning may happen from various sources and in different ways; and that educational institutions are not the only source of learning. The student would have the freedom to learn from nature, by reflecting on personal experiences, from his/her elders, by reading a book, etc. Further, it would enable students who wish to help their families financially or aim to become financially independent.

However, without an institutional framework, how would one ensure whether the learning of a child is leading to education rather than indoctrination, and likewise how would one differentiate between socialization and education. Further, online learning may enable parents to limit the exposure of their children or focus it on teaching them ideas that ensure the propagation of the established norms and belief systems.

Therefore, institutions of education cannot be deemed irrelevant or peripheral since they endeavour to nurture good citizens who appreciate and live by the values enshrined in the Constitution of India. Online learning, since it is generally focused more on content, tends to lose sight of this larger aim. We need to structure online and offline learning experiences for a wider range of engagements to nurture humane and capable citizens.

# Addressing students' needs

The hope from online learning is that it could benefit learners with disabilities or any other personal needs by offering courses based on their choice, pace, interest, and career plan.

However, can learning for students of all agegroups be made online? Can any online platform address the needs of students from pre-nursery to doctoral studies? Can a person without basic literacy learn via online platforms? How can we expect parents to take charge of their child's entire education based on online learning modules, without the guidance of a teacher?

The legitimacy and feasibility of online education may not be suitable for very young learners who are to be taught how to read and write. Reading and writing do not include merely decoding and encoding, respectively; rather it needs a cultural space for rich interaction with people or with print media. Thus, imparting early literacy is a challenge and to provide exposure to all components of language. Moreover, children do not require school only for learning, but in India, especially for people living Below-Poverty Line, the school is a way to monitor, support, and guide the development of children. Schemes, such as Mid-day Meal and other provisions, enable children to access education and to continue their education despite the hardships that their parents face. A shift to online learning needs to be planned while ensuring the fulfilment of the developmental needs of children. Another role that schools play in the development of learners is to civilize them by enabling them to engage with various social institutions and diverse members of society. Without a classroom, learners might have no opportunity to learn the essential social skills, life-skills, and ways of a good citizen. Schools also help learners to build their cultural capital by engaging with other learners and teachers from diverse backgrounds and with different perspectives. For a re-envisioned educational system, we need to chalk out the parents' role and the needs of first-generation learners to ensure quality education for all.

We need to reconsider education fundamentally, not just fill the gap created by the lockdown through online teaching. It need not be considered merely as an emergency measure for ensuring optimal learning experiences. Such learning experiences may be able to provide some basic information and some scope of guided analysis, however, learners' development needs much more than information because the overall cognitive, social, and emotional development of the learner is a process of social mediation that might remain absent in online classes.

# Impact of and attitude towards screen-time

The hope in online learning is that students are responsible, and they know the judicious use of the internet and their electronic devices. It is also expected that there will be a redefining of the idea of education, the role of teachers and students.

However, with the increasing concern over internet-addiction, pornography, phishing, and hacking, it is important that either educational devices are secure or with restricted access. Further, there are negative outcomes of spending too much time in front of the screen, such as strain in the eyes and headaches.

Therefore, the modalities of e-learning need a structure that would keep learners safe and do not add to their psycho-social issues. Moreover, this would require a radical shift in attitude towards school and screen-time. A child's going to school is something that is taken for granted both by parents and children. When children are not in schools, it typically means that children may not do any 'studies'. Online learning ethos would require a change in this attitude and a rethinking of the school-home dichotomy and continuity.

### Assessment

With online learning, the hope is that reciprocal assessment of students' learning and teachers' teaching would maintain the quality of education. Further, the aim of online educators is to make the assessment as comprehensive as possible.

However, in schools, teachers do not assess just what the students have learnt, but the formal assessments in various aspects of school life that include diverse abilities along with the informal assessments such as pointing, suggesting, feedback, and reflections by the teachers enable the school as an institution to respond to the child's wholeness.

In order to serve the larger purpose of assessment, the online learning experience needs to be thought through as more than online lecture and discussions. It has to envision diverse kinds of learning spaces, which would most probably require supplementary off-line learning experiences as well. Further, the idea of assessment as a process of comparison, in which students cannot be trusted because they tend to use unfair means, also needs to be transformed to the idea that assessments are for gauging and reflecting on one's own learning

### Parental involvement

However, a much bigger consideration is the merging of the boundaries of the home and the school. Many teachers and parents are happy with this as they see learning as a natural process that can happen anywhere anytime and if classes are also held online then they are happy that they can get involved or at least be more informed about the process. However, there are parents who feel cheated because, in the name of home tasks and assessments, they are being shouldered with the responsibility to teach various concepts to their children or they have to take more responsibility for the child's learning than what they feel capable of. Further, there are teachers who feel unhappy about parent's interference in the teacher-student engagement.

We see this as an opportunity to reduce the divide between work and play, school and home, and teacher and parent. What we need is a reorientation of these roles for a smooth continuity, open dialogue and collaboration between parents and teachers. Yes, for these modalities need to be outlined and both teachers and parents, but it is time that we bring learning out of the too-often rigid classroom environment to make it more natural and more social. Probably, these are the times to put our learning theories and curriculum frameworks to test because the class has already shifted to the home. It is hoped and expected that the knowledge of the home can be refined and knowledge of the school can be made more experiential.

### **Higher Education**

### Motivational factors

One of the popular selling points of online learning is the possibility that students could opt for the preferred courses rather than being taught similar things without their interest or inclination towards the course. Further, the hope is that such courses would lead them to specialize and earn advanced degrees. The assumption in this is that learners need to self- initiate and take forward the learning process.

However, this view ignores the motivational factor of a peer-group and the impact that peerrelationships have on the personality of a learner. How confidently can we say that learners in India are aware and capable of deciding their own course-combinations and are disciplined enough to go through it?

Online learning would require students to be informed, learning-oriented, and disciplined. Learners who do not have enough awareness about career choices, career-trajectories, and their own potential and capabilities would need additional support and mentoring. Hopefully, taking up these courses would help students to become independent, develop functional autonomy and discover the agency within themselves to engage in self-study at their own convenience and pace.

# Socio-political factors

The sense of hope that students hold through online learning platforms is the availability of courses from various universities at a much lower cost, as compared to going abroad to learn. These students and teachers are seen consolidating information about courses from international universities for which they are willing to pay to learn. They are hopeful about getting updated content knowledge and reduced dependence on educational institutions to make this intelligible and available to them, given that making changes to curricula and text books is a long-drawn-out process which may span efforts across several years, as has been the case in the past.

However, with the legitimacy that the online content gets because of the promotion of online learning, the paradox that might arise is that students may access sub-standard content and end up learning from sites that have inaccurate content knowledge or are ideologically biased. This is a major challenge considering the diversity of religion, caste, class, gender, region, and ideology. This fear is not much in the textbooks that are liberal in their spirit. However, if these texts become a tool for propaganda, then the teacher's autonomy, which to some extent is maintained in offline, face to face teaching, would also not be able to counter it.

What may be inferred from all the arguments above is that if the nature and quality of students' learning is the responsibility of the state through the schools that it regulates and controls, then, identification of quality e-resources also becomes their responsibility. Students or their parents cannot be left alone to try to locate good quality e-resources. Further, various educational boards & universities need to plan courses that are suited to the contextual needs of the learners rather than offering uniform courses. There is also need to re-envision the school as an institution with features like physical space, teachers, sports, activities, cultural events, and many other subtle aspects of the school.

# **Disciplinary considerations**

A related hope is that all learners could study courses they find interesting and that there would be ample space for interdisciplinarity, trans-disciplinarity, and multidisciplinary learning. It would be learners' hope that by earning credits online, they could add them to the choice-based credit system, which has been implemented in some Indian universities following the international format of courses.

However, the concern here is whether every discipline is amenable to online learning. Does every discipline have its unique nature, which might get ignored in online learning? What about those courses that are training-oriented and skillspecific, such as B.Ed. MBBS, and B.Tech that need extensive hands-on training, or courses that require field-engagement such as Law, B.Ed., Social Work, Sociology, Psychology?

The shift to online learning cannot be complete but only partial, which would vary amongst courses, subject-streams, and disciplines. A sudden shift instigated by the COVID-19 outbreak should not put students' valuable time and efforts at risk.

### Assessment

Any online certification can be considered equivalent to a regular course, only when the assessment criteria is made as stringent as a regular class. The expectation of equivalence of credits is dependent on the validity and reliability of assessment in online courses.

However, one wonders whether the range of formative and summative assessment that is done in regular classrooms be replicated in online courses? In online courses, formative assessment becomes laborious and almost impossible as the student enrolment increases. Further, can such an assessment gauge the development of critical thinking and higherorder thinking skills?

Online learning systems need to be integrated with assessment tools based on programmed instructions, peer-feedback, and self-reflection. Other modes of assessment such as on-demand examination and no 2n-traditional ways, such as open-book examinations, paper-writing, and long-essays may be used along with courserequirements such as publication of a research paper in a reputed journal or peer-reviewed by two professors. Another option is to make courses partly online so that learners and teachers have the freedom to assess and include papers as per the need of the course. All assessments must be inclusive and fair to individual and social differences of learners.

# Attitude towards online certification

An expectation of students learning online is that the educational institution should consider their course at par with the usual classroom-based course. They hope that their credits be added to their certification and that this certification is considered valid across institutions.

This may not be much of an issue with courses for professional development, however, for school and college-going learners it is important. Not getting acknowledgement or equivalence of a course may defeat the purpose of pursuing online studies.

For a seamless integration of online and off-line studies, the option of credit-transfer is important. Various agencies, such as schools, educational boards, and universities have to join hands to evolve norms for credit transfer and equivalence under schemes such as CBCS, LOCF, or gradebased system.

## **Teacher Education**

## Hopes

Many principals and school administrators, such as Wattal (2020), Wal (2020), and Choudhary (2020) have shared their felt needs and hopes of a cadre of teachers who are digitally aware, resilient, with a shared sense of purpose, and a reinvigorated enthusiasm for teaching and learning. They highlight that all stakeholders require an attitudinal change in their understanding of teaching as 'informationproviding' to 'learning of skills to learn on one's own'. They envision building a sense of academic freedom which is matched by the teacher's role of being a facilitator.

Drawing from Peters (1964), we may call this education as an initiation into "worthwhile activities and modes of conduct" (p.69) where students understand the relative importance of activities through the teacher. This conception of education places a lot of importance on the teacher's ability to communicate a sense of the quality of one's own life to students, but it also demands a lot from students in terms of deciding for themselves the worth of various learnings, actions, and things. To these principles the 21stcentury skills: "critical thinking, creativity, collaboration, communication, information literacy, media literacy, technology literacy, flexibility, leadership, initiative, productivity, social skills, seem all the more relevant" (Stauffer 2020).

## Issues

However, the issues are not just about the modalities of scheduling online classes at a time suitable to all students and teachers, or how can one ensure that a teacher does not feel burdened, there are deeper concerns other than the modalities of teaching: "Can we go on teaching the same syllabus in the same fashion at a time when the world no longer remains the same?" (Pathak, 2020). Should our education be anthropocentric anymore? Can our notions of development and progress remain the same? Should the prevalent processes of schooling educate our children for the future? Should a teacher's role be that of a deliverer or instructor anymore? Should our schooling experiences remain to be focused on remembering facts and creating a workforce? And the like. Each of these is a debate if not a paradox which is pressing in its own way. It makes for a formidable cumulative for which sustainable solutions and strategies will have to be worked out, recognising changing times.

# **Considerations and Reconciliations**

With respect to the issues spelt out above, not only will the prevalent ideas of modernity need to change, as highlighted by Pathak (2020), but our notions of being human, notion of society, relationships, and vision of civilisation will also have to change. We need to reconsider education in its fundamental contours and not just fill the gap created by the pandemic through online teaching. If education is perceived as a matter of experience and not just as an act of passing of information, then we need to plan our experiences closer to reality and more relevant to students' lives.

With this intent, we need to reconsider what is worth teaching and what is worth learning for students, because what is worth teaching largely remains a political affair, which ignores the emotional, the spiritual, and the personal. We need to make learning personally relevant without losing sight of the social. Our learners need to be prepared to face any new challenge positively, such as the present one. We should probably consider narrow-mindedness, bigotry, apathy, and violence as indicators of the shortcomings of our educational system and it is an opportune moment to critically relook at it. As teachers and teacher-educators, we must position ourselves in a much more grounded way and not limit our deliberations to the processes of schooling, but also focus on the various factors that impact the educational system.

Any such re-envisioning has to be comprehensive so that we become more humane rather than merely thinking of being prepared to face any such scenario in future. This is an 'event', a moment in history that has given us the opportunity to decide our future direction collectively, rather than merely waiting for the tsunami to pass so that we can go back to our usual lives. Either we may consider the present scenario as a break from the routine or as proof of the breaking down of our collective understanding of human life and a humane society.

### **Concluding remarks**

COVID-19 has forced us to reconsider not just the importance of technology and sustainability, but, probably, these are the times when collectively we need to reflect on not just the systems and processes, but also the overall vision and direction of education. It is hoped that the discussion presented above would enable administrators, policy-makers, and educational consultants to structure the educational system in a comprehensive, inclusive, and just way. The constitutional values of freedom, equality, liberty, justice, secularism, and fraternity need to be our benchmarks and one must not forget that a system has to be made inclusive in its fundamental design, otherwise, it would be violent towards certain people without intending to be so. These reflections are intended to integrate social sensitivity and responsibility with the bureaucratic rationality of a system so that education can become humane and humanizing.

A learner in higher education is an adult who has a distinct identity, psychologically, socially, and politically. However, it is unfair to expect that one fine day our children will suddenly transform into adults. Growing-up and becoming a responsible adult is a gradual process and before we expect our young adults to begin making right decisions, we have to provide space for some wrong ones along with support and guidance for them to become better at fulfilling their responsibilities towards others and towards themselves. Therefore, as parents, teachers, and administrators, we need to build in our educational institutions this increased flexibility and scope for their independent decisions.

Taking the position that we need to find a new direction, there has to be a re-imagination of the idea of education and schooling towards the direction pointed out by Ambedkar's socialism in reference to the role of the State, Tagore's creative and humane living in reference to our notions of work and earning, Gandhi's Swaraj in promoting us to becoming independent and more democratic in our use of technology. We can also draw from Krishnamurti's dialogue particularly in the context of the teacher-student relationship and from Phule's idea of mass-education for the empowerment of all. These are the times, when we have both the need as well as the opportunity to move out of the shadows of the colonial techne and move towards a pedagogy of heart (c.f. Freire) and realisation of what Vivekananda would call a civilisational consciousness of India.

The mere pragmatic concerns that have led us to an unjust, inequitable and hierarchical social order needs to give space to a more humane, considerate, and cooperative ethos that can lead us to actualise our own potential and live a life of dignity and fulfilment. This is not just a matter of having happiness classes or employing mental health professionals to cater to the lifestyle issues that our present way of thinking has created. We are at a juncture, where we can rectify many of our mistakes and wrong turns. However, for this, we require a serious rethinking and exhaustive deliberations, which are also something that we usually avoid.

### References

Basham, James D., et al. (2015) "Equity matters: Digital and online learning for students with disabilities.". The Center on Online Learning and Students with Disabilities. https://kuscholarworks.ku.edu/bitstream/handle/1808/22627/2015\_COLSD\_Annual-Publication\_FULL.pdf?sequence=1

- Choudhary, Richa (April 16, 2020). "COVID-19 Pandemic: Impact and strategies for education sector in India". ET Government. https://government.economictimes.indiatimes.com/news/education/ covid-19-pandemic-impact-and-strategies-for-education-sector-in-india/75173099
- Cline, Benjamin J. (2020). "Assessment and Civility: Using Ethos as a Tool." *Enriching Collaboration and Communication in Online Learning Communities*. IGI Global. 39-51.
- Emde, Robyn J.; Doherty, Erin Kathleen; and Flynt, Dina .(2020). "Relationships in Online Learning Experiences: Identifying and Creating Positive Relationships in Online Learning." *Handbook of Research on Creating Meaningful Experiences in Online Courses*. IGI Global. 140-152.
- Kanuka, Heather. (2011) "Interaction and the online distance classroom: Do instructional methods effect the quality of interaction?." *Journal of Computing in Higher Education*. 23.2-3. 143-156.
- NSS Survey (July 2017- June 2018). *Key Indicators of Household Social Consumption on Education in India*. Ministry of Statistics and Programme Implementation, National Statistical Office, Government of India. http://mospi.nic.in/sites/default/files/publication\_reports/ KI\_Education\_75th\_Final.pdf
- Paliath, Shreehari (Sep. 24, 2018). "*Rs 1,413: Avg monthly surplus for rural India is just enough to buy a fan*". Business Standard. https://www.business-standard.com/article/economy-policy/rs-1-413-avg-monthly-surplus-for-rural-india-is-just-enough-to-buy-a-fan-118092400093\_1.html
- Pathak, Avijit (April 28, 2020). "We the Teachers at the Time of Pandemic". The New Leam. https:// thenewleam.com/2020/04/we-the-teachers-at-the-time-of-pandemic/
- Peters, Richard Stanley (2010). "Education as initiation". In R. D. Archambault (ed.) *Philosophical* analysis and education, 59–75. Routledge & Kegan Paul
- Stauffer, Bri (March 19, 2020). *What Are 21st Century Skills?*. Applied Educational Systems. https://www.aeseducation.com/blog/what-are-21st-century-skills
- Tewathia, Nidhi; Kamath, Anant; and Ilavarasan, P. Vigneswara. (2020): "Social inequalities, fundamental inequities, and recurring of the digital divide: Insights from India." *Technology in Society.* 101251.
- Wal, Anju (April 18, 2020). "A school principal's journey through the Covid-19 lockdown that every teacher needs to read". India Today https://www.indiatoday.in/education-today/featurephilia/ story/school-principal-s-journey-through-covid-19-lockdown-1668488-2020-04-18
- Wattal, Ameeta Mulla (April 23, 2020) "Post-pandemic, a shift in mindset will be needed to teach and learn". The Indian Express. https://indianexpress.com/article/opinion/columns/coronavirus-lockdown-education-children-going-back-to-a-new-school-6374612/