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TEACHING AND LEARNING IN A TIME OF CHANGE– OPPORTUNITIES AND CHALLENGES IN HIGHER Education

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ABSTRACT

The immediate post-pandemic change in campus-based education will be behavioural, distinct for physical distancing, masking and sanitising; bringing about rearrangements in classroom, library, laboratory, common rooms and just about everywhere. In the given situation all this will be formally insisted upon, but as mere rhetoric implying the real to be inevitably dubious. A likely development is the operation of the new time schedule, enabling the execution of the 'Earn While You Learn Scheme.' Several interdisciplinary programmes in emerging areas, hoping better employability will be in vogue as offered in blended mode. As for the long-term impact, interdisciplinary academic programmes will rank the foremost.

Disciplines will increasingly draw closer to one another in the wake of the emergence of more and more cross-disciplinary areas of knowledge. Blurring of disciplinary borders in higher education will demand cross-disciplinary literacy among teachers and adaptability among students. Growth of sciences through narrow specialisations, in their turn becoming sub-disciplines of added rigidity, will force the break of disciplinary silos and allow flexibility of choice in specialisation across disciplines. Higher education will become more and more personal and self-directed -- rather than general -- and institutionally administered through fixed requirements and procedures.

Introduction

Universities and college campuses are places where students live and study in close proximity to each other. They are also buzzing cultural hubs where students are brought together from nations around the world. Recently, the foundations of this unique ecosystem have been impacted significantly by the rapid spread of the coronavirus (Covid-19) outbreak, creating uncertainty regarding the implications for higher education. Recent events across the world of academia have brought into full light the various agendas around online education and research. As universities, schools and colleges closed across the world in 2020, researchers, teachers and students scrambled to adapt to a whole host of new pedagogical tools, communicative techniques, learning methods and teaching styles almost overnight. Some survived, others thrived, while some struggled and ultimately went 'out of business'.

According to a report of the Ministry of Human Resource Development, Government of India conducted a survey on higher education and observed that there are 993 universities, 39931 Colleges and 10725 Stand Alone Institutions listed on their portal, which contribute to education. These institutions further reflect the student density of India as the total enrolments in higher education every year are nearly 37.4 million, reflecting the expanding horizons of the education industry. The sector was seen catching pace by the passing day until Coronavirus impacted the country intensely. This is a crucial time for the education sector—board examinations, nursery school admissions, entrance tests of various universities and competitive examinations, among others, are all held during this period. As the days pass by with no immediate solution to stop the outbreak of Covid-19, school and university closures will not only have a short-term impact on the continuity of learning for more than 285 million young learners in India but also engender far-reaching economic and societal consequences.

UNESCO estimates that over 1.5 billion students in 165 countries are out of school due to COVID-19. The pandemic has forced the global academic community to explore new ways of teaching and learning, including distance and online education. This has proven challenging for both students and educators, who have to deal with the emotional, physical and economic difficulties posed by the illness while doing their part to help curb the spread of

the virus. The future is uncertain for everyone, particularly for millions of students scheduled to graduate this year who will face a world crippled economically by the pandemic.

Virtual class rooms

Covid-19 pandemic-impacted higher education will be different mainly in the mode of teaching and evaluation. Nationally there was a call for a de facto switch to virtual teaching, learning and evaluation, pushing a huge number of teachers into an unfamiliar mode. Online mode, formerly allowed only in open universities and varsities graded 3.5 onwards, is now licensed for all universities to run their UG and PG programmes accordingly. Online as the new normal Hailed as a more effective, quick and less expensive mode, online teaching/learning is being given precedence over the campus mode.

Despite the 'shock of the new' all this represented, the debates around the virtual classroom, the online studio, the remote seminar, and distance education more generally, were far from new. Universities like Purdue Global in the US and the Open University in the UK had been operating this way for years. Experiments into how to teach design online had been happening for decades across the world, the evolution of remote educational interfaces had been evolving non-stop since the 1980s. Reinventing their radicles and making a conscious choice to grow even in the time of crisis, the universities decided to digitalise the sector. The educational reform in India in the COVID-19 era seems to be a live example of how need truly is the mother of invention or reinvention, in this scenario. Allowing educational institutions to adopt online learning and infuse a virtual study culture, the pandemic is already steering the sector forward with technological innovation and advancements.

For some disciplines, the transition was seamless, with lectures, tests and projects administered online with little or no change at all. Other disciplines writhed at having to forego the peer-to-peer learning environment of the classroom, the dynamic interaction of the design studio, or the personal contact of the open-ended seminar discussion. Skills-based courses such as model making lost their contact with 'materiality' while the physicality of lab experiments on materials or prototypes was totally lost. Needless to say, the pandemic has transformed the centuries-old, chalk–talk teaching model to one driven by technology. This disruption in the delivery of education is pushing policymakers to figure out how to drive engagement at scale while ensuring inclusive e-learning solutions and tackling the digital divide.

Transition to online mode

Uncertain times call for stronger measures and the education industry has been stepping up to take some. The pandemic has been working as a catalyst for the educational institutions to grow and opt for platforms and techniques, they haven't used before. The times are changing, and the theories have always pointed out towards the survival of the fittest. Surviving these crises with a different approach and digitising the sector are the two elements which will get the industry through the storm and wash away the blues of the pandemic.

The switch to online education has been ensuring that students suffer no loss of studies and their progress is being tracked simultaneously with timely evaluation. It is probably a first for India to experiment with the education system and make a paradigm shift to the virtual world, blending classrooms with online learning. Alchemising education with technology and forming a collaborative strategy to tread ahead while providing online lectures will also enable the students to learn creatively. Boosting retention of the syllabus by using innovative technology, the universities are also engaging students to learn by choice and not just by their physical presence in a classroom. Furthermore, providing AI-enabled learning by universities as they offer diverse courses in association with other collaborations is only making the country envision a new tomorrow based on educational reforms. For instance, medical students can opt for interactive sessions to discuss specific case studies, engineering aspirants could delve into the depths of environmental engineering and city planning

along with the mentors playing videos and conducting online moot sessions for law enthusiasts and much more.

In fact, some of the universities are also offering courses related to the fourth industrial revolution, which will stimulate the minds of the students and inspire them to bring a change in their respective fields. Gaining popularity worldwide, online education is nourishing a lot many inquisitive students, instead of giving in to the circumstances.

One of the opportunities to focus amidst the crisis is the virtual internships, which are allowing the students to go beyond their curriculum and learn about the practicality of their professions. Another value addition for the field of education and thus students is the way universities are encouraging them to observe the current scenario and understand the need to automate. This will further allow them to digitalise their fields in the near future along with preparing them for any such situations. This practice will instil more confidence than chaos or panic.

Apart from interactive and virtual learning, the universities are teaching much more than just syllabus. They are sensitising their faculty to tackle the situation wisely. Online support groups along with emotional help by lecturers are only strengthening the system. Educating the students simultaneously about their anxiety, the current state of chaos, fears and emotions is not only preserving their sanity but also making them aware of how it is only natural for them to be in such distress amidst the crisis. Improving their emotional intelligence, this, coupled with the UGC's guidelines of providing psychological support to students will transform the education system for good.

Spread of online courses

It has been suggested that a single podcast at the national level hosting the entire course material for smart teaching can ensure quality. Now, there is the UGC platform called SWAYAM offering several open online courses. It appears that the contingent situation will predictably divide higher education institutions into two types: a) covering humanities and social sciences taught informally through virtual mode, less expensive and meant for liberal arts and social sciences and (b) covering pure sciences professional disciplines excluding law. Virtual higher education can never match the one imparted through campus based real classroom that is distinct for various critical aspects of rigorous learning. Students of eminent universities enjoy the advantage of in-face interactive learning distinct for criticality and creativity of the campus.

Strategies for higher education

A multi-pronged strategy is necessary to manage the crisis and build a resilient Indian education system in the long term. One, immediate measures are essential to ensure continuity of learning in government schools and universities. Open-source digital learning solutions and Learning Management Software should be adopted so teachers can conduct teaching online. The DIKSHA platform, with reach across all states in India, can be further strengthened to ensure accessibility of learning to the students.

Two, inclusive learning solutions, especially for the most vulnerable and marginalized, need to be developed. With a rapid increase of mobile internet users in India, which is expected to reach 85% households by 2024, technology is enabling ubiquitous access and personalization of education even in the remotest parts of the country. This can change the schooling system and increase the effectiveness of learning and teaching, giving students and teachers multiple options to choose from. Many aspirational districts have initiated innovative, mobile-based learning models for effective delivery of education, which can be adopted by others.

Three, strategies are required to prepare the higher education sector for the evolving demand–supply trends across the globe—particularly those related to the global mobility of students and faculty and improving the quality of and demand for higher studies in India. Further, immediate measures are required to mitigate the effects of the pandemic on job offers, internship programs, and research projects.

Four, it is also important to reconsider the current delivery and pedagogical methods in

school and higher education by seamlessly integrating classroom learning with e-learning modes to build a unified learning system. The major challenge in EDTech reforms at the national level is the seamless integration of technology in the present Indian education system, which is the most diverse and largest in the world with more than 15 lakh schools and 50,000 higher education institutions. Further, it is also important to establish quality assurance mechanisms and quality benchmark for online learning developed and offered by India HEIs as well as e-learning platforms (growing rapidly). Many e-learning players offer multiple courses on the same subjects with different levels of certifications, methodology and assessment parameters. So, the quality of courses may differ across different e-learning platforms.

Five, Indian traditional knowledge is well known across the globe for its scientific innovations, values, and benefits to develop sustainable technologies and medicines. The courses on Indian traditional knowledge systems in the fields of yoga, Indian medicines, architecture, hydraulics, ethnobotany, metallurgy and agriculture should be integrated with a present-day mainstream university education to serve the larger cause of humanity.

Problems and challenges

The structure of schooling and learning, including teaching and assessment methodologies, was the first to be affected by these closures. Only a handful of private schools could adopt online teaching methods. Their low-income private and government school counterparts, on the other hand, have completely shut down for not having access to e-learning solutions. The students, in addition to the missed opportunities for learning, no longer have access to healthy meals during this time and are subject to economic and social stress.

Even though the country has been adapting to the new-age learning, but there still lies an obstacle in making the endeavours entirely successful. What still remains intact is that only 45 crore people of our total population of the country have access to the internet and thus to e-learning. The people residing in rural areas are still very much deprived of the latest advancements and therefore hampering the cause of online learning. Now, virtual classrooms are not only dependent on e-lectures but also require one to have access to the e-content and online study material, practise sheets etc. as well. And that's where we lag behind as India is not fully equipped to make education reach all corners of the nation via digital platforms or online classrooms. The students who aren't privileged like the others will be held back due to the current resort and there is no denying that. But universities and the government of India are relentlessly trying to come up with a solution to resolve this problem.

The pandemic has significantly disrupted the higher education sector as well, which is a critical determinant of a country's economic future. A large number of Indian students - second only to China - enrol in universities abroad, especially in countries worst affected by the pandemic, the US, UK, Australia and China. Many such students have now been barred from leaving these countries. If the situation persists, in the long run, a decline in the demand for international higher education is expected.

Online teaching and evaluation, pushed as a new normal under the pretext of the pandemic crisis, upset objectives of access, equity and excellence in the higher education sector. About 30 per cent of students at home under lockdown are not able to access online lessons due to lack of internet connectivity. Further, a massive shift to online mode will be tantamount to making one-third of the teaching faculty redundant, a strategy likely to be adopted for public expenditure cut under the crony-capitalist setup. Quality of the post-Covid higher education will slump further both on the campus under a behavioural shamble and in online devoid of professionalism. What teachers now practise by way of online is carrying drudgery of real to the virtual. It is not smart classroom teaching rendered as podcast. Virtual teaching is not a substitute for the Real that has all the exclusive advantages of being real.

The Covid-induced virtual mode will bring about several transformations in the concept of higher education institutions, their clientele and practices. Competence in teaching, learning and evaluation will be e-competence. Likewise, learning outcome will be computational, teaching ICT-linked, evaluation online, quality ecompetency related, access technology dependent and equity a mere rhetoric. Professional online Differences between online and classroom teaching are not merely confined to the medium and environment. There are differences in the art or science of teaching, designing learning outcomes, techniques of communication, ways of facilitating learning and methods of evaluation. It is important for teachers to be formally accustomed to the art, science and methods of ICT-based pedagogy to become effective in virtual teaching.

Conclusion

In this time of crisis, a well-rounded and effective educational practice is what is needed for the capacity-building of young minds. It will develop skills that will drive their employability, productivity, health, and well-being in the decades to come, and ensure the overall progress of India.

The immediate post-pandemic change in campus-based education will be behavioural, distinct for physical distancing, masking and sanitising; bringing about rearrangements in classroom, library, laboratory, common rooms and just about everywhere. In the given situation all this will be formally insisted upon, but as mere rhetoric implying the real to be inevitably dubious. A likely development is the operation of the new time schedule, enabling the execution of the 'Earn While You Learn Scheme.' Several interdisciplinary programmes in emerging areas, hoping better employability will be in vogue as offered in blended mode. As for the long-term impact, interdisciplinary academic programmes will rank the foremost.

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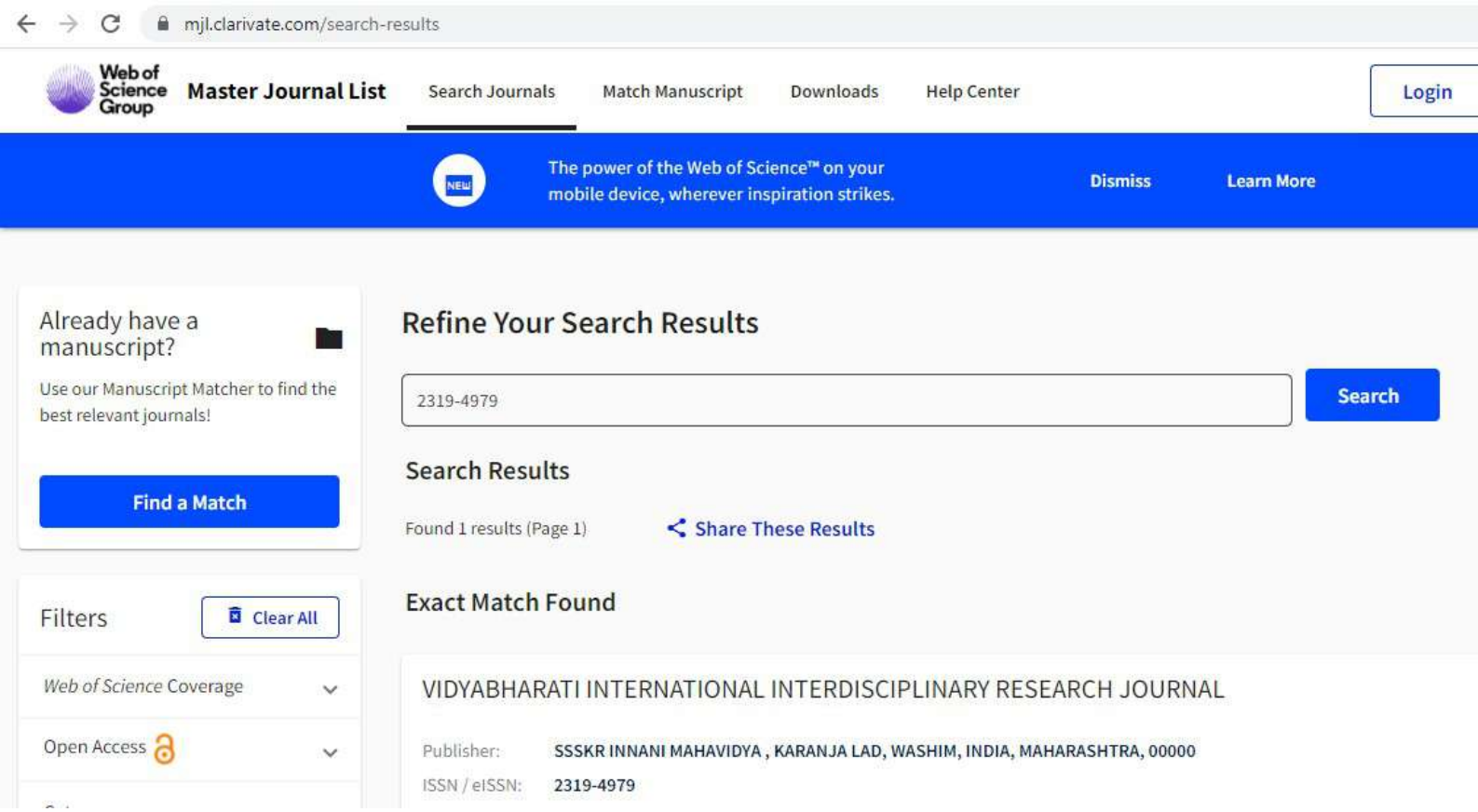
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