Research Diary

KID: 20200107 Post COVID-19 Education

Jio Institute organized a webinar on "Internationalization of higher education in the post COVID-19 era" by Dr Allan Goodman President, Institute of International Education, USA and Dr Francisco Marmolejo, Education advisor at Qatar Foundation on 14 May 2020. The author was invited to participate in the discussions. The webinar began with introductory remarks by Dr. Raghunath Mashelkar, Chancellor, Jio Institute & former Director-General, Council of Scientific and Industrial Research (CSIR) and concluding remarks by the Dr Dipak Jain, Vice-Chancellor of Jio Institute. This write-up gives you the essential part of the deliberations.

This pandemic has made all the educational schools across the world to adopt online teaching. Courses are conducted online, examinations are conducted online, assignments are submitted through email. For countries like India, this is a good opportunity to strengthen internet connectivity across rural India and spread education to rural students. Every village and towns in India should be digitally connected for better interaction between the students and teachers. Institutes like IITs have "a sort" of infrastructure to connect students but the experience shows that not all students have good interaction due to various reasons. Some of the students are guick to adapt to this system and some take little longer time to acquaint with this system. India should establish a good infrastructure for online education like some of the advanced countries. The greatest advantage of such a system is education can be internationalized. Advance institutes like IITs and IISc can globalize online education while Universities, initially, can nationalize online education. Fundamental structural changes should be made in the curriculum/syllabi and programmes should be popularized to attract students across the countries. Skill development should be part of the curriculum in engineering and science degree programmes. This will create future entrepreneurs. This is one way to beat unemployment and increase business skills amongst the youth. The business community should play a leading role in this new educational system. What is the opinion of the experts? The strength of this system lies in the faculty the institute it nurtures. Faculty need to change their mundane teaching methods and adapt to evolving technology-centred teaching.



The faculty should establish themselves as "competent" individuals who can deliver what the students (industry) expect. To establish such system faultily should be active in research and research publications and gain experience /skills in online teaching. In a way, the learning institutes become virtual institutes. Every student's home becomes his institute. This will reduce the demand for the infrastructure of the institute. However, research labs should function as usual to support research. Research collaboration can go online and can be internationalized.

Higher education in India needs to be more international, more flexible(curriculum), should be innovative and should be open for more collaboration.

According to Dr Francisco Marmolejo, higher education should be re-designed. It should be flexible, more innovative, more international but more locally connected and socially responsible, more collaborative and less risk-averse. Innovative models should be introduced. Universities/institutes could be onlineproviding internet-based flexible offerings (open universities); traditional learning with hands-on work; collaboration with other schools. Of course, there are challenges one has to face at the initial stages: e.g. leveraging technology to deliver better and more inclusive education, contributing to digital economy and society and responding to global demand but shifting demographics. Faculty play the most important role in this system. True international engagement comes with curriculum integration (CI) and active participation by the faculty. Faculty need to be motivated and actively involved in curriculum integration. Online education does not mean without laboratory experience to students. Skill development needs laboratories/workshops. There could be centres across the countries to support skill development activities. These centres could be institutes, colleges, universities. On the research front: it is all collaboration and not competition. Projects need to be designed through collaboration so that laboratory/research facilities could be shared. This will lead to strong centres of research laboratories on the scale of a region. For example, there could be a strong collaboration within the SE Asia region. There is none till now. Many Institute routinely signs broad-based MoUs (Memorandum of Understanding). A component in this MoU should be Curriculum Integration.

Research Diary

And this should be implemented with all its seriousness. Post COVID-19 is an opportunity to transform the higher education system. Institutes/ universities should utilize this opportunity to transform itself. Curriculum design, collaborations, skill development and faculty involvement ---all should focus on internationalizing higher education.

Today it is COVID-19. we don't know what lies ahead in future for the million youngsters. Experienced teachers can now get affiliated with universities/institutes to offer an online course that fits into the curriculum. The curriculum also needs to undergo drastic changes (CI) to accommodate the courses without losing the standard and content. Institute like IITs and IISc should now go global and be part of the international education system.

Faculty need to change their mundane teaching methods and adapt to evolving technology-centred teaching. The faculty should establish themselves as "competent" individuals who can deliver what the students expect. Here the faulty should be active in research and research publications and gain experience /skills in online teaching. In a way, the learning institutes become virtual institutes.

The greatest advantage of CI is that a student can choose a course of his choice across the globe while fulfilling the academic credit requirement of the institute/university where he is registered. Student migration will be curtailed. Without spending a substantial amount, the student can get international credits and he/she can sell herself in the job market. If the institutes cannot do it now, then these institutes will die in future because no student will register for any programme in such institutes. The head of the institute plays a key role in this transformation. They cannot sit back and go back to the old style of education post COVID-19. However, research labs should function as usual to support research. Research collaboration can go online and can be internationalized. Future institutes/universities will be virtual and only research activities will be carried out through international collaboration. Here it is important to establish "trust" amongst faculty at International level. The amount saved on infrastructure (hostels, mess, water and electricity bills etc.) can be diverted to strengthen

research laboratories. The research collaboration will replace research competition. Institutes can accommodate a large number of students and quality education can be given to all the students whether it is within the country or abroad. The additional advantage is that institutes/universities can engage experienced faculty to get involved in this system. Experienced faculty will strengthen the academic and research foundation as many have already been well established internationally. Education is a continuous and evolving process and there is no retirement for those who can render their expertise.

I am sure the forthcoming academic year will start with an entirely new education system at school and university levels. Faculty evaluation becomes very easy. Based on the number of students registering for a course offered by a faculty. Within a few days of this Webinar, the Government of India, while announcing economic package laid strong emphasis on online education. The Finance Minister announced that the top 100 universities in the country will be able to start online courses via radio and television for students who don't have constant access to the internet amid the COVID-19 lockdown by the end of May 30, 2020. Online education is being taken up in a big way. In addition to existing TV channels, another 12 channels will be added to help the students in the rural area. The current lockdown period is an excellent opportunity for online transformation. IITs should lead the role and guide the other 100 universities. Govt. has come-out with connectivity to rural areas. This could be strengthened in future with good internet connectivity. The impact of the COVID-19 crisis is already being felt across sectors and higher education is no exception. While some participants, during the discussions, have argued that this is not the time to talk about internationalization of higher education, the majority indicated that for countries like India -which have been "late comers" in the highly competitive international education sector- the after-crisis offers a unique opportunity to "leap-frog" and rapidly advance towards an effective internationalization. Nevertheless, for India to more effectively position its higher education in the international scene some fundamental shifts may be needed, including curriculum reforms, a diversified revenue generation, immigration conducive norms as well as innovative modes of learning. With strong government support, I am sure this can be achieved.



Prof. D. Chandrasekharam Visiting Professor, Department of Civil Engineering & Department of Climate Change