Promulgation of Higher Education in India: From University to Meta University via Massive Open Online Courses (MOOCs)

Rajnish Kamat
Shivaji University, Kolhapur, India
raj_kamat@yahoo.com

Patrick Keleher
Central Queensland University, Rockhampton, Australia
p.keleher@cqu.edu.au

Arun Patil
Central Queensland University, Mackay, Australia
a.patil@cqu.edu.au

S.M Pujar
Indira Gandhi Institute for Development Studies and Research, Mumbai, India

ABSTRACT

The higher education (HE) in India has phenomenally expanded in the last few decades in terms of access, equity and inclusiveness, thanks to the policymakers for linking the key issues to be executed with each five year plan. However in the quest of increasing the Gross Enrollment Ratio (GER), the HE paradigm seems to be lost in the tradeoff of meeting the increased aspirations of the job seekers and job providers which in turn has resulted in the paradox of quality versus quantity. Moreover the emergence of the HE as the key player in the globalization wherein the international players are all set to invest in this upcoming for profit segment of market, the scenario in countries like India which is regarded as the third largest HE system over the globe has poised to undergo a sea change. Better late than never, the dynamics of the Indian HE system is accelerating, in spite of the given complexity of large number of diversified apex bodies trying to control, coordinate and resolve the quality Vs quantity paradox in the backdrop of the internationalism, quandary of the not-so-well-off opposed to well-off, faculty crunch, paltry allocation of grants contrasted with the cross border involvement of the profit making institutes all set to enter the scenario. In the milieu of the above, a new delivery model Massive Open Online Courses [MOOCs] is knocking on the doors of the Indian HE system. The present article reviews this new delivery model of engaging the learners and puts forth its aptness for the Indian scenario.

Keywords: MOOC, online courses, higher education, Indian higher education, online learning

INTRODUCTION

The Indian HE system blessed with a rich tradition of 'Gurukul' system in the Vedic period (Aggarwal, 2011) was truly a kind of 'Choice Based Credit System' (much talked today) wherein the student used to get specialized knowledge under the supervision of different Gurus as per the intended domain of knowledge. Even the system of *Agrahars*, *Viharas* and *Madarasas* (Dwivedi, 1994, p17) also played a vital role in dissemination of the right kind of knowledge to become a noble member of the society than merely getting a livelihood. Today's much hyped internationalization and cross border education in the Indian HE paradigm is not at all a new phenomenon, if one looks at the visit of the Chinese scholars such as Xuanzang and Yi Jing (Sen, 2006) in Indian institutions of learning to survey Buddhist texts in the high Middle Ages.
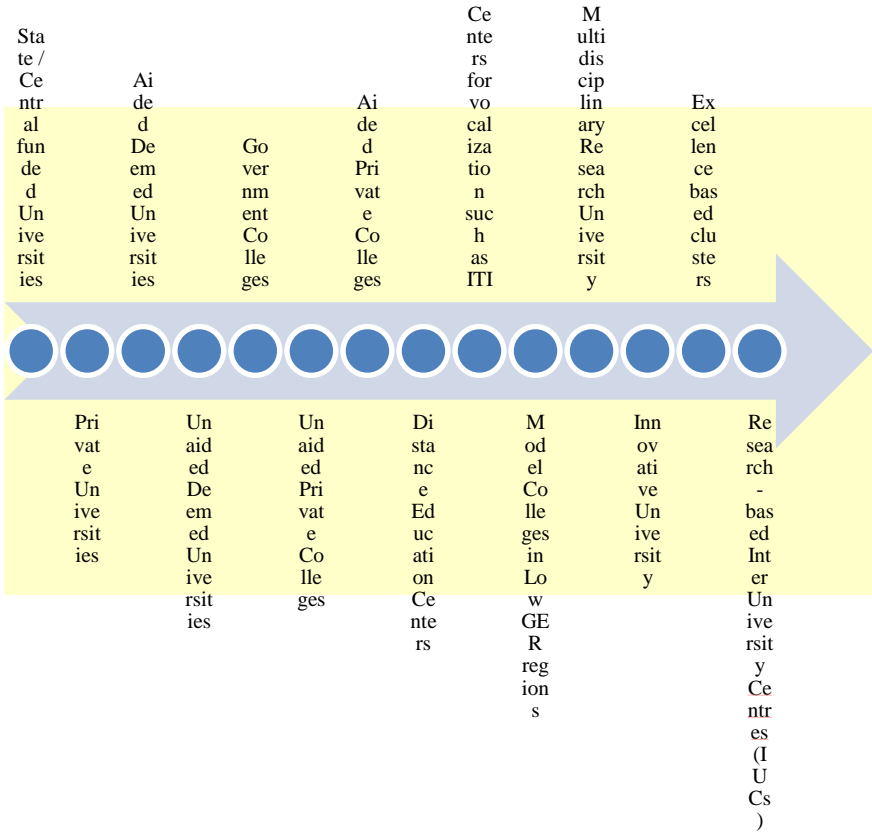
Top row (left to right):
State / Central funded Universities — Aided Deemed Universities — Government Colleges — Aided Private Colleges — Centers for vocalization such as ITI — Multidisciplinary Research University — Excellence based clusters

Bottom row (left to right):
Private Universities — Unaided Deemed Universities — Unaided Private Colleges — Distance Education Centers — Model Colleges in LoweR GER regions — Innovative University — Research-based Inter University Centres (IUCs)

Figure 1. Timeline revealing the evolution of the Indian HE

The significance of mobility of the researchers and scholars was as important during even the 10th century as today when a monk named Dharmadeva (Scharfe, 2002, p161) from Nalanda journeyed to China to translate a number of texts.

The British were the pioneers of the modern education in India albeit the fact that the main rationale behind the same was to nurture the class of English speaking intermediaries between the ruler and the rules (Sarma, 1996).

Thus the first ever policy framework Education i.e. first Indian Education Commission of 1882 mass education itself recommended massification[1] of education with private and missionary help (Altbach, 2005). However post-independence, considerable efforts in strengthening the HE system were put in practice by increasing the institutions of higher learning and thereby increasing the access notwithstanding the crunch in grant-in-aid. The efforts are now bearing the fruits which is seen from the glittering results by the end of Eleventh five year plan, during which, India has been successful in crossing the threshold of 15% GER, thus moving the country from being an 'elite' to a 'mass' higher education system. Going forward, the focus is on sustaining the momentum by focusing on the 'Three E's- Expansion, Equity and Excellence' (Eduvisors, 2012).

Nevertheless the past decade of the 21st century has witnessed an altogether change in the HE scenario which forced all of us to accentuate more on the third E, i.e. excellence and quality. First time in the history of mankind the upsurge of Information and Communication Technology (ICT) has seen to brought in a tremendous change. Thioune (2003) notes that for the past two decades most developed countries have witnessed significant changes that can be traced to ICTs. These multi-dimensional changes have been observed in almost all aspects of life: economics, education, communication, and travel. In a technology-driven society, getting information quickly is important for both sender and receiver. ICTs have made it possible to quickly find and distribute information. However the penetration of ICT especially the adoption of the Internet and Mobile technologies in India has been picked up at a rapid pace as compared to other developing countries. In fact the benchmarking reports regarding the above indicate that there is possibility for India to double its economic contribution from the Internet from 1.6 percent of GDP to 2.8 to 3.3 percent by 2015 (Gnanasambandam et al., 2012). No wonder it is now quite natural to adopt ICT in various arenas of higher learning right from the academic administration, on-line examinations, on-line assessment, and feedback from stakeholders as well as the most exigent governance. Consequently, to transform the India into a Knowledge society, the National Knowledge Commission [NKC] a high-level advisory body to the Prime Minister of India, was formed and currently most of its recommendations are seen to be underway at the Central and State levels.

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[1] Massification a rudimentary term indicating the makeover of a product or service which was exclusive of the well-off and now been made available for the common man is used here in view of the fact that the HE is now considered as a public good.

In the backdrop of the evolution of the HE paradigm in the Indian context, this paper focuses on the upcoming delivery model i.e. Massive Open Online Courses (MOOC)

MOOC casting eye on Developing Countries

Online courses in the form of MOOCs offered on the Internet are expanding access to higher education around the world; especially this is a blessing in disguise for learners from developing countries as they now can dream of studying a course offered by an elite university. They have undoubtedly offered an opportunity for poor students from these regions of the world. This is clearly visible from the number of students enrolling in droves for these courses from countries like Brazil, China and India. According to Coursera (2012), one of the leading companies offering MOOCs, 5.9% students registering for courses are from Brazil, 5.2% from India, 4.1% from China, which is a small indication that shows popularity of these courses among the learners from developing world. As per latest figures, students from India enrolling for MOOCs increased to 10% on Coursera and 13% on Edx (Nair, 2013). Edx is the non-profit group, created by Harvard and MIT, to provide free course access through MOOCs (Harvard University, 2013). https://www.edx.org/

As MOOCs are all set to encompass the developing world, it may bring in an opportunity for students, but by the same time it may be a threat to weaker institutions as students may prefer to enroll to online courses than to physical ones. According to Sebastian Thrun's prediction within 50 years there could be only 10 institutions still delivering higher education (Leckart, 2012). It may put a big shadow on the future of higher education. It is really worrying factor for institutes in the region as it may impact on their mere existence. However, it may also work as an opportunity for institutes and teachers to use these courses in the flipped classroom setup (Tucker, 2012) to improve on the delivery of education to students. Wherein students take classes on MOOCs and teachers provide assistance in discussions, preparing assignments and conducting experiments within the classroom setup. This may help in maintaining student's enrollment to courses, change in curriculum and bring in new ideas to the classroom. For example in Rwanda, a nonprofit called Generation Rwanda is experimenting to start an entirely MOOC-based university, which is likely first of its kind in the world. Though it is in piloting stages, its eventual goal is to create a 400-person university in Rwanda, with MOOCs providing the lessons and teaching fellows guiding students through discussions and problematic areas (Leber, 2013).

Universities or colleges from the region may collaborate with companies or universities offering MOOCs, which may bring in new opportunities for students, teachers and universities. They may either make certain courses offered by MOOC provider's part of their curriculum or offer certain courses in local languages and credits using these platforms. Even they may use the Edx platform, which MIT plans to release in open source to post online courses at local level (Leber, 2013). Also, they may collaborate to translate some of the courses offered by MOOC providers into regional languages to enable wider reach of these courses, which

may appeal to local audiences. These measures will help in minimizing course delivery issues related to language and Internet bandwidth and ensure wider acceptability and reach of these courses.

At present the impact of MOOCs may not be much on post graduate courses as they have mainly concentrated on graduate courses, but we expect the day may not be far off to see the impact in the coming years looking in to the developments in MOOC arena. By then issues such as access, computer literacy, infrastructure, which are of main concern in some of the regions of developing world may also get resolved to a greater extent that may lead students learning both on the Internet and in physical classrooms.

Critical investigation of possible Impact of MOOC on Indian HE[2]

While analyzing the impact of the MOOC on the Indian HE scenario, it will be worthwhile to strategize the penetration in the manner so as to reach out to the aspiring masses and stakeholders of HE which so far failed to be covered by the conventional means and also dither with the distance education system for some or the other reasons. As pointed out by Eduvisors (2012), while overall institutional density increased from 10 to 14 institutions per 1,000 sq. km. during the Eleventh Plan, large number of habitations and settlement clusters with a population of more than 10,000 and less than 1,00,000 are without any proximate institution of higher education. Given the fact that the young learners being the greatest resource, it would be worth pondering whether it is really possible to meet out the exponential rise of the learners in the 15–35 years age bracket from 350 million, which is expected to peak at about 485 million in 2030 (Altbach and Jayaram 2010). In this context as rightly pointed by Sudarshan and Subramanian (2012) unless it is able to get its act together and put in place a wide range of mechanisms, India will be staring at a tsunami of young people approaching higher education and the system will not have the capacity to meet the demand. In this context the policymakers perception is to lay heavy emphasis on acquiring the intangible assets by the way of profound enhancement in the HE system by going from the 12% to 30%, increase in GER through another 800 to a thousand universities in the next ten years, which seems to be challenging given the fact that right now the current number is still below 40 per cent (Sibal, K. 2010). However, in times of escalating overheads and reservations about the Return on Investment (ROI), about the academic degrees, the current situation has resulted in many vacant seats in the Engineering and Management Institutes in the country. Therefore instead of formulating an increase in the number of institutes of higher learning or increasing more courses in the existing institutes this might instead cause a significantly higher unit cost of education. Besides the MOOCs can also help in resolving the following deficiencies of the present Indian HE system:

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[2] Most of the figures unless otherwise given references have been borrowed from the report "Higher Education in India: Twelfth Five Year Plan (2012–2017) and beyond" FICCI Higher Education Summit 2012, retrieved from the website of Planning Commission of India.

- Undergraduate courses amounts to 87% in of the total number of enrolled students in degree courses, where there is real need of horizontal mobility due to which UGC has given the mantra of Choice Based Credit System' (CBCS)
- Instead of increasing more study centers under distance education and dwindling the economics of the 4.2 million students, it would be sensible to go for MOOCs.
- The highest share amongst the general courses amounts to 30% of Arts faculty. In order to encourage this scenario MOOC can help in inculcation of teaching-learning in local languages and thus will complement the new national initiative ('Bhasha' Initiative) proposed in the XII plan.
- The majority spend, third largest interms of enrollment with an impressive CAGR of 20.6% share of enrollment enjoyed by the professional faculty is also suffering from the woes from unemployment as revealed by various reports such as NASSCOM-McKinsey. The ready to job human resource can be nurtured by increasing the classroom hours and covering the prerequisites through MOOCs.
- The 40% and 35% shortage of faculty in state and central universities respectively that amounts to six times growth in enrollment the last 30 years vis-à-vis only four times increase in faculty may be addressed through launching few courses in the MOOCs mode instead of appointing ad-hoc or clock-hour-basis faculty.
- According Jhunjhunwala (2012), the not so well off people of the country are the first losers when the quality seats in higher education is so limited. However the MOOCs delivered through technological means can't have any kind of bias such as cast, creed, religion or gender.

The above analysis supported by figures and facts reveal that MOOCs have a potentially greater role to play on the Indian HE turf.

CONCLUSION: MOOC IMMINENT IN INDIAN HE LANDSCAPE

MOOCs are creating waves all over the world bringing opportunities and threats to existing system of higher education. They have showed how the powerful technology can be used to educate the masses. Their rise may be attributed to the fact that, the physical campuses of universities are no longer able to meet the demand for higher education, which is expected to grow further in the coming years. Even though MOOCs seems to have certain advantages physical classrooms offer, but they can become a decent replacement for courses in certain disciplines. At least, they may be used by universities to create a flipped classroom, where in the precious time of teachers may be used for meaningful

conversations and undertaking experiments for laboratory oriented courses. They have certainly brought in elite education to the doors of poorer students hailing from the developing world, which was a dream for many of them. The higher education institutes in countries like India, where in large population is young, may advantageously use these courses to bring in new ideas to the classrooms.

As presented in the paper MOOC in the Indian context has great potential offerings both from massification and increasing the access point of view as well as bringing in more quality by resource sharing of the experts. It will no doubt fuel to a large extent the institutional collaborations and thus help in resolving the pockets of islands. It will also help in emaciating the East-West dichotomy in HE domain and will truly address the concerns such as regionalism, culture and geopolitics related to internationalization. It can also address the woes expressed by the Knowledge Commission regarding the establishment of new institutes of Higher Learning. As starting a courseware in MOOC would be much cost effective as compared to the establishment of a completely new University. Moreover such as new learning paradigm will allow the learners to acquire the knowledge at their own pace irrespective of the geographical constraints only at the cost of modest digital infrastructure which is almost been set by the way of National Knowledge Connectivity. One of the main mile stones set by the Indian HE system i.e. implementation of Choice based Credit System (CBCS) would be possible by hosting the courses on MOOC and clustering the institutes of higher learning for the credit transfer thereby offering the horizontal mobility to the learners. However the modus operandi for the MOOC implementation in the Indian context is still in its infancy, but if done properly days are not far to realize the credit transfer at a global level thus to apprehend the flatness of the World in the HE paradigm. Thus the gigantic Indian HE system globally largest in terms of the number institutions and second-largest in terms enrollment is all set for forging ahead from the traditional Universities to Meta Universities and no doubt MOOCs have a pivotal role to play in this transition. Realizing the same, MOOCs are on the top agenda under the digital infrastructure of the latest report "Higher Education in India: Twelfth Five Year Plan (2012–2017) and beyond" presented in FICCI Higher Education Summit 2012. Do our Universities really care to take a cognizance of this significant transition for their students which are born digital?

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