E-CONTENT CREATION OF SPANISH AS A FOREIGN LANGUAGE UNDER NMEICT IN INDIA: A REVIEW

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ABSTRACT: The present article discusses the changes in the Higher Education scenario in India after incorporating the National Mission on Education through Information and Communication Technology (NMEICT). The main aim of NMEICT is to benefit the learners of Higher Education Institutions in any time anywhere mode by using ICT in the teaching-learning process. One of the main ideas behind this was to enhance the Gross Enrolment Ratio (GER) in Higher Education and further democratization of education. In this paper, we have analyzed briefly the creation of Spanish course under this initiative by looking at some of the benefits and hindrances in developing e-content in this course. This paper reflects personal experiences and challenges in developing this course and critically examines the demotivating factors, which caused low visitors for this course.

KEYWORDS: NMEICT, e-content, foreign language, Spanish

I. INTRODUCTION

According to the Annual Report (2013) of Ministry of Human Resource Development (MHRD) of India, this country is a hugely populated country and presumably, one of the youngest as by the year 2021 about 64% of the country's population would fall between the ages of 20 to 35. This group of young people, popularly called the Millennial or the Generation Y (born between 1982 and 2002), is characterized by their easy access to a technology whereby they are making the maximum use of the internet and related technology to carry out their daily activities. According to PTI report published in the Economic Times, it is estimated that by the year 2020, the number of Internet users in India would reach a figure of 790 million and the highest proportion will be of young users. The data is a challenge for Higher Education in India since it implies facilitating high quality higher education opportunities involving the majority of young Indians taking into account their different and varying learning needs to enable them to function and excel in the Knowledge and Information Society.

If we look only at the quantitative figures of the Indian education system, we find that there is a huge demand-supply gap in India. Figures by UGC (University Grants Commission- the organization that is responsible for framing and executing Higher Education policies in the country) show that currently in there are 754 universities in India and among those, there are 347 state universities, 47 central universities, 123 institutions recognized as universities and 237 private universities. On the same UGC website, it is reported that in addition to the universities, there are also more than 35,539 institutes of higher education, e.g., public and private colleges affiliated to different universities.

Nevertheless, India is grappling with huge population numbers. According to MHRD, the estimated youth population of 18-23 years is approximately 141,537,252 or more than 140 million in 2016. According to Oberoi (2016), the total number of students enrolled in higher education centers at the level of degree or diploma is close to 34.6 million for the year 2015-16. Therefore, this data means that only 24.45% of young people can enter the tertiary education system. The UNESCO Institute for Statistics, China has a gross enrollment ratio (GER) of 43.39 % and Brazil has a GER of 50.6 % for the year 2015-16. The goal of UGC is to increase the number of students enrolled in higher education centers to 30% by 2020. An increase of about 6% within 3 years means considerable pressure on institutes of higher education in India as the student-teacher ratio of 24:1 in the Universities is already considerably high. Therefore, the new Higher Education Institutions need to be opened in a short period as well as elevated numbers of Faculty recruitment has to be done to teach the additional numbers. But given that the public spending on Education by the Government is only 3.65% of its GDP(according to Union Budget of India 2016), most of the contribution will need to come from the Private Sector which will make Education exclusive and all the more inaccessible to a large section of the society. Moreover, it might also reduce the quality of education imparted, which is already abysmal in India.

In 2009, MHRD, referring to the quality of Education, recognized the shortcomings of current educational delivery model and emphasized that

Schools, Colleges and Universities have not been able to keep up with the requirements for educating the Indian masses at the rate, level and quality that is expected from an Indian citizen in the coming knowledge era. To bridge this gap, new models of content creation, content delivery, learning, management and planning mechanisms for creating a cooperative and self-learning environment have to be developed. (MHRD, 2009)

Thus, an urgent need was perceived to transform higher education by incorporating digital learning media to improve its quality and to address the increase in the number of students enrolled.

It is widely acknowledged in the academic circles now that the use of large-scale technology in education can be very advantageous for higher education in India and this would help in solving three of India's pressing problems at the same time - access, equity and quality (Swayam, 2017). According to a report submitted by Heslop (2014) to the British Council on Higher Education in India, the biggest challenge facing higher education in India is the chronic shortage of teachers. Almost 30% or 40% of the places are vacant. Most teachers have not had adequate training in teaching. Other issues mentioned in the report regarding teaching and learning that aggravate the problems include:

-An antiquated, rigid program/curriculum and the absence of employer commitment to the content of the course and the development of skills.
- Very few opportunities for interdisciplinary learning.
- Pedagogies and evaluation focus on input and memory learning (rote learning); students have few opportunities to develop a broader range of cross-cutting skills, including critical thinking, analytical reasoning, problem solving and collaborative work.
- An inefficient system of quality assurance and a complete lack of responsibility on the part of the institutions towards the state and central government, students and other interested parties.   (Heslop, 2014)

These characteristics of higher education have resulted in the number of graduates with low employability, a common feature of higher education throughout South Asia, and an insufficient basis for the movement to higher levels of study and research. It is agreed that in general, the quality of digital content for teaching in India is very low and it is thought that producing high-quality digital content requires a global effort and an international collaboration in the design of courses that can then be contextualized to be used in India.

II. NATIONAL MISSION ON EDUCATION THROUGH ICT OR NMEICT

To address these concerns, the Indian government resorted to large-scale technology through its National Mission on Education through ICT or NMEICT, which it launched on 3 February 2009, with the aim of transforming the education system and giving access to education to every citizen of India thereby reducing the knowledge and digital divide. It was understood that inclusive education could be provided with the help of digital technology tools to include those 71 million or more youths who are still outside the education system and provide high-quality value-added education to the existing enrolled population.

However, we must bear in mind that the use of technology such as radio and television in education is not a concept alien to India. Neeru Snehi (2009) informs us that the use of satellite in education began as a Satellite Instructional Television Experiment (SITE) in the years 1975-76. This led to the creation of CIET-SIET transmission studies for the production and transmission of teaching-oriented programs, the initiation of the UGC classrooms in collaboration with CEC (Consortium for Educational Communication) through the creation of resource education centers multimedia (EMRCs) and audio-visual resource centers (AVRCs) in several universities. Currently, these programs continue as Vyas Channel supported by the CEC and several EMRCs, Gyandarshan II of the IGNOU (Open University), Open School and transmission channel of NCERT (Organization responsible for Primary, Secondary and Higher Secondary Education Policies). To meet the growing demands of education, Indian Space Research Organization launched Education Satellite (EduSat) in 2004 exclusively for the education sector.

With the availability of EduSat services, the NMEICT was conceived in the Eleventh Plan of India. It is an ambitious plan conceived on a very large scale with the vision of catering to the learning needs of 50 crores (500 million) Indians and of providing one-stop solution to all the requirements of the learning community. It aimed to provide technological infrastructure to centers of higher education as well as seek their help in creating excellent educational content free for all available at all times for lifelong or self-paced learning. Therefore, it was a major foray into the creation of OERs in a very structured way generating courses for School-level and Undergraduate and Postgraduate levels as per the Indian education system with extensive use of ICT. In the

mission document, the government recognizes ICT as "a crying need as it acts as a multiplier for capacity building efforts of educational institutions without compromising the quality." It states that

With an ever-expanding field of knowledge, the knowledge and skillsets required by an individual to successfully lead life has also expanded, throwing up challenges of learning more and more throughout one's life. Add to that the challenges of pedagogy being faced by the teachers to package more and more for the uptake by the students within the same amount of time available. (MHRD, Mission Document NME-ICT, 2009)

It was conceived to take advantage of the potential of ICT, in the development of high-quality personalized and interactive modules available on the Internet for all students in higher education institutions anywhere and at any time. This scheme has two main components, (a) content generation and (b) connectivity. The NMEICT proposed to increase the coverage of ICT in most universities and public institutes. According to Monika (2016), the mission focused on the digitalization and interconnection of all educational institutions, the development of low-cost access devices and low power consumption, and making bandwidth and Wi-Fi available for educational purposes.

It was proposed to overcome the obstacle of access to the Internet and new technologies through this mission. The goal was the expansion of its free access education portal called SAKSHAT that would take care of all the needs of the entire community of learners, including students enrolled in various educational institutions and students for life through the wide use of concepts of e-learning and the methodology based on ICT. In order to achieve what was conceived, it proposes:

[e]ncourage development of high-quality e-content, for loading on to 'SAKSHAT' in all disciplines and subjects, at various levels using the best available authoring tools and making the fullest use of animation and multimedia technologies in order to make learning interesting and facilitate clarity of concepts to the learners.

(MHRD, Mission Document NME-ICT, 2009)

III. SAKSHAT REPOSITORY

The SAKSHAT repository hosts various courses and complementary materials in a digital format. One of them is the portal of E-PG Pathshala. It is a large-scale Open Access project initiated in the year 2012-13 that was undertaken to develop digital content in 77 subjects at the Postgraduate level. It included courses on English and Foreign Languages as well, Spanish being one of the few. Currently, it holds foreign language courses in Spanish, Chinese, Russian and Japanese out of those 77 subjects included in the repository. The content in Spanish, which included 16 papers on various topics, related to language and literature, each paper containing 35 modules of 3500 words each, was produced in the mandated four quadrants format, which was same for all the subjects included in the project:

Table 1: Four quadrants format of E-PG Pathshala

Self-Learning Video	E-text
Self-Assessment	Learn More

IV. DEVELOPMENT OF SPANISH E-PG PATHSHALA COURSE

It was developed through large-scale collaboration between teachers and professors of the Department of Spanish from different Indian universities. The main responsibility of executing the whole project was on Dr Rajiv Saxena of Jawaharlal Nehru University to whom the project was awarded. It was a historical moment for in all of 68 years of teaching of Spanish in India; extensive collaborative work of this kind was never undertaken by the foreign language academia. There was never a textbook published for use in colleges and universities customized for Indian students. This was the first time in the history of Spanish teaching in India where content creation on such a massive scale was taken which was meant to be free and open. Never before were courses on such a wide variety of topics produced for public consumption. In general, Spanish teachers in India are not open to share their teaching materials with others. What a professor teaches in his class can only be found in the form of notes of his or her students. There is an absence of any online resources sharing platform where different professors share their knowledge and ideas about teaching and learning. Brainstorming of any kind is limited to conferences, workshops and seminars. Students in general, who are not part of their classes, find themselves in a disadvantageous position and are devoid of any knowledge gain even if they want to. One of the main contributions of the project has been ease of access with which knowledge can be shared, disseminated and acquired and this unique initiative by the government has propelled the teachers involved into doing something that they had never done before in public domain.

The budgetary allocation for the project was handsome. According to Mission Document NME-ICT(2009), the total amount to be spent on it was Rupees 84 crores (approximately 13 million dollars) in which preparation of each paper of 35 modules was allocated Rupees 7 lakhs (approximately 11 thousand USD) and each Content Writer per paper would receive Rupees 2.5 lakhs (3,900 USD). In the Indian Public Education sector, it was not a poor compensation for content writing though most of those involved where young professors or teaching assistants, PhD candidates still at the budding phase of their career. Their content was to go through three-tier review- by the language reviewer, by the content reviewer and finally by a distinguished senior professor for overall module and paper review. This put in place certain checks and balances in the whole process so that the content was standard and at par with or better than Spanish courses taught in well-known and esteemed public universities of India. This course served for any person anywhere in the world who wanted to study Spanish language, literature, translation studies, pedagogy, culture and civilization and many more. The Spanish project started somewhere around January 2014 and by December 2017, all the papers were successfully uploaded on the SAKSHAT EPG Pathshala portal with all the four quadrants. In the end, all the papers were uploaded under Creative Commons Share-Alike with an Open License to reuse and reproduce all the content with no copyright of the University or Content Writers. There were quite a few challenges faced by everyone involved in the project, which at the end might have been detrimental for the whole prospect of EPG Pathshala. Some of them are:

- None of the Content Writers was trained in Instructional design for online courses and very few had an idea about the nature of technological pedagogical content they were expected to put in their lessons.

- The issue of creating original content was a major challenge since in India, Copyright is a very slippery domain and most of the teachers teach borrowing materials from other sources. There has been very less focus on using own materials for teaching and very less incentivization of research and investigation.

- The mandated 3500 words per module was a major constraint for people who were writing Spanish Language and Grammar papers which resulted in the lessons being very long which might not sustain the interest of online learners.

- No simultaneous coordination with the IT team who was to develop the Word Documents into online modules. The papers needed to be submitted and the IT team would develop them at a later stage with very little involvement from the Writers.

- The pressure of recording 30 minute long videos for each lesson which at times could not be any different from the E-text already submitted and thus leading to repetitive work of creating slides for the video recording of the same content.

For technological integration to be more advantageous, it is necessary to get rid of the common mistakes that are made when using the technology of teaching and learning. Some of these errors are:

-Installation of learning technology without reviewing student needs and content availability;
-The imposition of technological systems from top to bottom without involving teachers and students;
-Use of inappropriate content from other regions of the world without appropriately customizing it;
-Production of low-quality content that has a poor instructional design and is not adapted to the technology in use.   (Hasan, 2014)

SAKSHAT was conceived to overcome the above problems of higher education, create high quality content in courses both technical and humanities field. NPTEL was an Open Access course run for Engineering students, which is also hosted by SAKSHAT. It ran before E-PG Pathshala and an evaluation report was duly submitted by UGC after taking feedback from the students. It was supposed that other e-content developers would take cues from the feedback to create their courses. According to the Report of the Evaluation Committee on NMEICT, SAKSHAT (2017), students' evaluation of NPTEL courses indicated the following points:}

a. Could be made more interactive and community-driven

b. No scope for doubt clarification as no FAQs

c. Real classroom simulation is better than studio recorded lectures

d. More animations needed to enhance learning

e. Lack of awareness on part of students about the courses

If we look at the student feedback, we see that we at EPGP did not improve upon the NPTEL project feedback and resorted to the same formulae without acting on improving the format in which we are presented the courses. There is no such evaluation or feedback report of EPG Pathshala until the time of writing of this article but the similar feedback will be provided for these courses as they have followed the same template. The courses are

not community-driven, thus there is less chance of peer-to-peer interaction although the initial idea was to introduce discussion forums for people doing the same course. Until now, no FAQs have been added to the courses, the videos are all studio-recorded, and the quality of animation in the videos is of a much lower quality than the young generation is used to seeing in their daily lives, which might lead to students losing interest early on. Furthermore, there is less awareness about the course and in search engines; it is difficult to look up this course if you enter the usual search words such as "free online Spanish course", "Spanish courses free", "Spanish courses online India". There appears a plethora of other websites and courses but EPG Pathshala (EPGP) course does not come up. Any student sitting in a remote area of the country wanting to learn Spanish is more likely to type the above keywords to search for online courses but he or she might never be aware of these well-structured courses because the search engines are not throwing them up. The video lectures have also been uploaded on YouTube but until and unless one key in EPGP Spanish papers in the search bar, the videos do not appear.

The statistics say that the highest number (530 visitors as on 31 December 2017) has accessed the first module of the first paper i.e., Elementary Spanish grammar followed by its second module (419 visitors). However, after that, the numbers steadily decline to 121. It might be an indication that the modules, in the way they have been presented, have not been able to sustain the interest of the students and they do not continue with the whole paper.

There might be several reasons for low interest in the course and some of the most important reasons might be the following:

a.   Lack of peer interaction as a foreign language is difficult as a solo exercise for beginners.

b.   Absence of in-text translations and forums for doubt clarification

c.   The separation of e-text and video content might be a problem since students can either watch the video or go through the e-text. Moreover, a time span of 30 minutes of video lecture with little interactive exercises to do in between might lead to boredom.

d.   Absence of exercises to enhance understanding after every section or topic since there is an option of MCQs only at the end of each module.

e.   No option of obtaining any certificate after completing the course which might be a demotivating factor for many since most of the young students in India look for certifications that gives them a further push in the job market.

f.   English has been used as a vehicular language for basic level courses while most of the population is not comfortable in it. Absence of subtitling in regional languages for the videos might be the reason for low views.

g.   Problem of internet connectivity as India generally grapples with low-speed data where people mostly access the internet on their mobile phones. Most of the Tier 2 cities and small towns still browse the internet at low speed while most of the EPG Pathshala videos and MOOC videos require greater bandwidth for the videos to run smoothly.   Under the Bharatnet Project, the plan is to digitally connect 2.5 lakh villages in India. It remains to be seen at what pace the project is completed and how far the villages and towns are connected for these contents to reach to the population.

The above limitations of EPG Pathshala courses prompted MHRD to propose the creation of SWAYAM platform in the year 2014, which was a one-stop portal for housing the MOOCs of different Indian Universities and Higher Education Institutions. It was an effort to garner more interest of the young generation since MOOCs had gained substantial credibility all over the world and the Indian students started enrolling for the MOOCs of Foreign Universities and started benefitting from them. It was felt that India was lagging in the MOOC revolution mostly started by US Universities and since academicians in India had already started working for OERs, they could as well work for the creating MOOCs. The transition from OER to MOOC was made easier in a way that for the universities, which had already worked on EPG Pathshala, they could repurpose their content as per the new MOOC guidelines and offer credit-based courses through SWAYAM. The only difference between SAKSHAT and SWAYAM platforms is that SAKSHAT is an OER repository which does not give any credits or certificates to the students participating in the course while SWAYAM is a free MOOC repository through which online courses will be conducted by professors of various universities in India and students, if they want, can attain credits and get certificates for doing a course on payment of a small fee. We have submitted the Spanish repurposed content for the MOOCs to be run by Jawaharlal Nehru University professors where anyone wanting to earn a certificate while doing this course can participate. Both SAKSHAT and SWAYAM portals are free and Open Access under Creative Commons- Share-Alike thus inching a step closer to inclusive education as envisioned by the government.

V. CONCLUSION

We still have to see the complete transformation that the free access courses of E-PG Pathshala and the MOOCs can produce in the educational panorama of India although a lot of money and time have been invested in the elaboration of these courses. It is not yet known to what extent they will be able to maintain the interest of students who opt for these distance courses. Although a little late but the commitment of the government towards the use of new technologies, in particular, the open courses of free access for the population, which in the majority is poor, is commendable. The existing problems of higher education such as the low number of enrollment, quality education and teacher training have not yet disappeared or diminished in their entirety and we are relying on technology to rescue us in any way and bring millions under the cover of education.

Nevertheless, there is certain skepticism among experts towards distance education that does not enjoy the same popularity as face-to-face education in the context of higher education. In other countries such as the US, distance education is very popular due to the availability of a very high-quality digital content or the MOOCs of traditional universities. The portals of Khan Academy, EdX and Coursera are widely used both in India but as additional support. In general, distance education or online education and the degrees obtained after completing these courses are accepted by students, parents and employers in other developed countries. In India, at present, there is only one university that teaches distance or online courses and it is the IGNOU in New Delhi that also teaches Spanish courses. Traditional universities do not teach distance or online courses. Nevertheless, with the creation of SWAYAM, it is expected that this attitude towards online courses would change in the coming years and many students would take these courses to supplement and complement their education requirements. Although, this would only be possible if digital content of very high quality is produced with adequate training of the writers of these contents in the instructional design.

The EPG Pathshala experience was relatively novel and challenging for all the content writers but online content generation needs a lot of training, research and technical expertise from content writers as well as content developers and we hope in the near future, the quality of content improves so that more and more people benefit from such courses. Through the creation of portals such as SAKSHAT and SWAYAM, a step has been taken in that direction with the creation of good quality content suited to the needs of Indian students based on the updated curricula of the main Indian universities. It remains to be determined the benefits that digital content of education and learning indigently created in India will bring, but it is surely a step forward that aims to meet the needs of our growing young population by providing quality education at low cost without having to move to the areas where these higher education centers are located, which entails the uprooting and additional costs of living.

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