

# TECHNOLOGY AUGMENTATION TO OVERCOME RECENT ISSUES WITH MANAGEMENT EDUCATION

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**Abstract:** In today's age of digital innovation, the aptitudes and high level manpower are required in the field of management for the development of management education. There is a pressing need for information and communication technology (ICT) driven campus with proper leverage of cyber-infrastructure (ICT infrastructure) to create and implement an innovative and vibrant learning modality along with traditional systems of instruction which may lead to more effective and efficient outcomes of management learning programs in higher education institutions (HEI). Augmenting technology in teaching-learning management education is required to overcome the digital divide that has surfaced recently. Technological Innovation and other empowering strategies are particularly important in uplifting management education and in synthesizing digital learning programs which will deliver the educational content effectively anywhere and at any time by thoughtful integration of education and technology. The innovative instructional practice aided by technology in institutions will engage and motivate students significantly to succeed in a competitive environment in the face of impending digital disruption in management education. With this paper, the aim is to explore the digital learning models that can be used in delivery of instructional content in many unique ways for improvement of quality of learning and also, to bring about awareness on various initiatives adopted by University Grants Commission (UGC) and Ministry of Human Resource Development (MHRD), Government of India, for the development of higher education.

**Keywords:** Technology, ICT, digital, management education, learning, UGC, MHRD

## Introduction:

There is an increasing mindfulness of the present need for a new paradigm of management education and deliberations on the future of higher education, particularly in the context of the digital revolution and the associated emergence of globally competitive, knowledge based economies. The longevity of the university is not a result of never changing – but rather a tribute to its capability to continuously advance, adapt, and transform over time.

University Grant Commission (UGC) is a statutory body of Government of India and it is an apex body, headquartered in New Delhi, established in accordance to the UGC act 1956, and is responsible for the coordination, determination and maintenance of standards of university education in India and to approve universities, disburses grants to these universities and overlook other non-technical institutions in the country under the Ministry of Human Resource Development (MHRD) formerly known as Ministry of Education. 47 Central Universities, 365 State Universities, 123 Deemed to be Universities, 269 Private Universities produce a total academic awards of approximately 1.5 crore per year.

Management education in India is facing challenges to keep pace with global trends in higher education which are arising out of globalization and liberalization. According to International Telecommunication Union (ITU) - an agency of United Nations that publishes ICT development index (IDI) report annually since 2009, has assessed and ranked India 134 globally in 2017 after monitoring and comparing countries and overtime. IDI indicates a country's progress towards being an information society, which means there is a lot to be desired in terms of improvement in ICT infrastructure, accessibility and connectivity to Internet, ICT usability and skills which are significantly important for human interactions and transactions.

There is an innovation deficit in higher education which is clearly indicative from the country's Gross Enrolment Ratio (GER), according to the latest edition of the All India Higher Education Survey (AIHES) launched by Union Human Resource Development (HRD) the GER is as low as 25.2% in 2016-17 and is much behind China's GER of 43.39% and USA's GER of 85.8%. Also, there hasn't been any substantial improvement in the globalization of Indian education. According to Financial Times Global MBA ranking 2017, Indian management schools do not feature in the top 25 business school rankings in the world.

Information society is making substantial change in the way people live, learn, and socialize. Unlike the other generations such as Baby Boomers, or the GenY, the GenZ students are born after 1995 into a world where the internet technology, social media networking and mobile communication always existed. The GenZ students are tech savvy and, also adequately well informed about the use of technology in learning through easy access to internet via smartphones. With GenZ entering the higher education arena, the university system has to adopt strategies to cater their diverse learning needs. Studies have suggested that ICT seems to have a reflective influence on the process of learning in higher education by offering new potential for learning and key to keep the students engaged in the learning process. The digital learning strategies should be incorporated to improvise on the learning process and to advance higher education standards and quality of education to reduce skill disparities in indigenous universities, deemed to be universities, open universities and colleges.

India provides poor quality higher education outside its top tier of universities, the quality of the faculty is uneven, research opportunities are generally unavailable to either students or faculty, and there is a tension between providing a good management education to a limited number of people and providing access for all. According to the study conducted by Associated Chambers

of Commerce and Industry of India (ASSOCHAM) Education Committee (AEC), it has been found that only 7% of management graduates are employable, except graduates from IIMs. Also, the All India Council for Technical Education (AICTE) has stated that majority of MBA graduates in India are struggling for jobs as there has been a significant decline in management related jobs in the market.

Universities should strive towards being globally competitive by bringing overlapping diverse communities such as alumni, student, teacher, researcher, etc., to manage, create, share, disseminate and preserve knowledge.

This study is to explore and comprehend innovative learning models in management education which would provide accessibility and flexibility in learning through proficient use of technology, besides be passionate for coupling innovation and creativity in cultivating ubiquitous management education to advance the outcomes of management graduates and B-Schools. To improve upon the current situation of higher education, the Ministry of Human Resource Development (MHRD) has come out with various digital initiatives to enhance active learning and engage lifelong learning by providing easy access to global resources. The objective of the paper is to familiarise with these digital initiatives in management education so that universities and business management schools can develop action plans to effectively adopt and implement these initiatives for utilization in enhancement of management education.

### Literature Review:

Shwetha & Kumar, (2011) have observed that Management education is facing a crisis of relevance in the context of global management education standards and have seen distinctive challenges such as subsiding student engagement, growing diversity, poor governance, redundant skills, shortage of faculty, and lack of innovative teaching methods, poor quality of research and unemployability of B-School graduates. These contemporary issues have hindered outcomes among graduates, administrators, institutions and alumnae such as employment opportunities, better remuneration, skills and abilities for career success.

Ensign & Woods, (2014) analysed benchmark practices and institutional characteristics for academic success and scholarly growth in higher education, and the unique characteristics and expectations that students bring to their professional programs require new methods of addressing classroom activities and student learning. Intrinsic and extrinsic factors play a role in academic success; educators need to be better equipped to promote student engagement both inside and outside of the classroom through purposeful learning opportunities by embracing dynamic strategies by bringing about changes in the instructional approach and moving towards a learner-centric, collaborative, and adaptive approach to learning in a dynamic environment.

Kumar, (2009) advocates the utilization of ICT in instructional design since ICT is now a basic building block of society and has impacted the education culture significantly. With the merging of ICT and Education we could get an innovative instructional pedagogy by mixing different learning modalities such as Face to Face Learning, Self-Paced Learning, and Online Collaborative learning. Fusion of different learning styles helps in realizing the learning potential and advancing educational institutions to be able to cater to varied learning styles.

Cheng, (2013) highlights that collaboration and knowledge sharing is an important aspect of learning, the study focuses on social media tools as a medium for interaction between learners, tutors and experts. The interactive tools will stand to cover the shortcomings of the Learning Management System (LMS) and Content Management System (CMS) which is program-centered and lacks the online presence feature which is imperative for communication, information sharing and continuous learning. The area of focus in this paper is to leverage the social media for improving learner interactions for collaborative learning which is a new paradigm in the networked learning and can be incorporated in the digital learning environment.

### Research Methodology:

This work is based on secondary sources of data published by government departments, universities and International agencies in their periodicals, conference proceedings, annual reports and websites. Peer reviewed national and international journals relating to higher education and management were also reviewed for the paper. This is an exploratory study and a conceptual work.

### Challenges faced in management education:

- High cost of acquiring, installing, operating, maintaining, and upgrading ICT infrastructure and services will have an adverse effect in making a futuristic business management school that can prepare students for the future and keep them engaged in life-long learning.
- There is dearth in professional development and training programs for the staff for effective use and integration of ICT resources in teaching and administration process.
- Foreign Direct Investments (FDI) in higher education sector is perilously guided by profits as the investment in cyber-infrastructure by global investors is concentrated towards technical courses which give large scale investment returns resulting in commoditizing of education and also will foster a wave of cultural imperialism in management education.
- Due to lack of affordable technological infrastructure it is difficult for universities to make available for students the state of the art cyber-infrastructure and provide them with easy access and high quality learning content.
- With technological advancements, machines and concepts of data analysis are put to use in premier institutions to improve education standards and quality of learning which incurs huge investments and same cannot be afforded by small colleges and universities.
- In future, with robotics, automation, machine learning and artificial intelligence taking over the industry, there is a possibility that the demand for business management professionals further decreases due to the prevalent skill gap between management education and industry.

- In today's digital economy, the polarization of management education by the industry in hiring management graduates is due to lack of digital skill based education and this has hampered the confidence of industry in hiring management professionals.
- Tier-2 and Tier-3 management institutions have low quality standards due to lack of ICT infrastructure and as they do not follow global benchmarked practices which are likely the key to achieve educational excellence.
- Lack of ICT skill development initiatives and workshops for faculties has affected the quality of professional development in management education.
- Management institutions lack provision of access to broadband connectivity for educational administration and management.
- With remote access to quality online content due to connectivity issues, the universities and colleges are placed in a challenging space for survival.
- Outdated curriculum is still in practice with little significance given towards digital learning and skill based education is a major factor in decline of management education. Therefore, management institutions should redesign and restructure the curriculum to meet the global standards.
- Management institutions struggle to provide students with latest state-of-the-art facilities and technology infrastructure to provide them with real-life experiences in a learning environment and practical exposure in management and the challenges that come with it.
- Widening of the digital divide between premier management institutes and other B-Schools is a cause of concern due to lack of availability of sophisticated ICT tools and resources for teaching and learning.
- Creating a safe and a secure ICT environment is a challenge for institutions as implementing Information technology policies and solutions would require substantial operating and maintenance costs.
- The management graduates find it difficult to get internships and live projects online in the market or the cost of being part of such projects is high. Absence of internship program and projects on the resume may impede students in finding an aspiring job.

### **Digital Learning:**

Digital learning is an adept instructional practice that is facilitated by technology to reinforce learning experience encompassing a wide range of pedagogical practices with some element of control over place, time, and pace of learning.

**Place:** Learning is no longer restricted within the brick and mortar institutions, electronic gadgets have given the power to students to access internet and learn anywhere, and at any place.

**Time:** Due to proliferation of the internet now students can access content through their personal digital devices at any time making learning more flexible.

**Pace:** Interactive and adaptive learning software allows student to learn at a pace they are comfortable, adjusting the pace at which instruction is delivered and may be repeated for better understanding of the topic.

Digital learning is usually a mixture digital content, technology and instruction. Digital learning has helped institutions to move from an instructivist approach to a learner-centric constructivist approach by providing synchronous and asynchronous environments to the learners and is a mixture of self-paced learning, online collaborative learning, enriched virtual learning, & technology guided learning. All the different learning methods aim to enhance the interaction and comprehension of concepts for the students and alumni using Internet or computing technology. The current generation of higher education students are so called "digital natives" (Prensky, 2001; Proserpio and Gioia, 2007) and many already use technology to enhance their social interaction, shop online and interact with online tools (Ito, 2008). Social collaborations and exchanges between individuals have been bolstered by the development of IT infrastructure and communication technologies. New channels of communiqué have been released between masses in the last decade which has encouraged learners to scale new heights in accomplishing outcomes in the field of business, management and administration. This has also contributed and brought about significant changes in cultural, social, technological and educational outcomes.

Digital learning models include a wide range of contextual learning practices that may be coupled to form an effective instructional delivery mechanism and are inclined towards providing a flexible and personalised learning experience.

Digital learning content is effective when created and curated by professionals such as talent trainers and coaches. Digital learning defines content that is embedded in podcasts, webinars, kindles, social learning platforms, keynotes and content shared in traditional classrooms. Digital content allows learners to access content their convenience through different modalities and multi-platforms. The different modalities here could mean web-pages, mobile apps, text, graphics, audio and video. Effective use of different modalities by trainers can engage and enhance students learning. Multi-platforms refer to access to digital content through different devices such as desktops, laptops, tablets and smartphones.

### **Digital learning is a mixture of different forms of learning such as:**

**Blended learning:** This mode of learning is seen as an amalgamation of various pedagogical approaches to learning. Blended learning is a combination of online learning and traditional approach to learning, moving from a constructivist to an instructivist approach to learning.

**Online Collaborative learning:** In this type of learning the exchange and advancement of knowledge through asynchronous online discussion forums among students, experts and between students and an instructor through threaded discussions.

**Enriched Virtual learning:** This form of learning typically happens online where the users can enrol in a course and can complete the course remotely. Enriched virtual learning incorporates some elements of the classroom online where they can have sessions with the instructor or expert online as and when required.

**The Digital Learning Models that can be adopted in practice are:**

**Flipped Classroom:** This is an instructional strategy recommended by UGC for higher education institutions to improve quality of learning wherein instructional content in the form of video lectures and other multimedia content can be accessed on SWAYAM platform outside the classroom and then, later students could participate in discussions, doing other activities that will enrich student learning experience, and get more clarity on concepts from the instructors in classroom.

**Lab Rotation:** In this type of model, the lab space is separated from the classroom space, wherein spending adequate time in the computer lab is a criterion for fulfilling online learning part. Students are taught in the classroom through traditional face-to-face approach in the classroom and later, at the instructor's discretion and guidance the same concepts are put to practice in the lab through quizzes, simulations, problem solving, and assignments.

**Flex model:** In this model of learning, the students have the freedom to learn at their own pace online and have instructors available to deliver small group instruction, one-on-one intervention or academic supplements. This model is very engaging and allows for independent learning and enriching the students learning experience.

**Digital Initiatives by Ministry of Human Resource Development (MHRD):**

Ministry of Human Resource Development (MHRD) in collaboration with University Grant Commission (UGC) have taken several digital initiatives for the development of Higher Education vis-à-vis Management Education to expand the frontiers of knowledge and to reach out a broader audience. Technology in Higher Education is one of the distinct functions of the many functions of the Department of Higher Education.

The path breaking digital initiatives undertaken by the MHRD to improve educational standards are as below:

1. **SWAYAM: Study Webs of Active Learning for Young Aspiring Minds (SWAYAM)** is an indigenous IT Massive Open Online Courses (MOOCs) platform developed by the Government of India to liberalize education and bring about equity, quality and access to interactive content for everyone, anytime and anywhere. Through the SWAYAM initiative the government seeks to bridge the digital divide between the regions and the hitherto societies.  
UGC has already issued Credit Framework for online learning courses through SWAYAM under Regulation 2016 on 19th July 2016, through the official bulletin - The Gazette of India, advising the universities to identify courses where credits can be transferred on to the academic record of the students for courses done on SWAYAM. Learning upto 20% online courses taken through SWAYAM counted for credit transfer. SWAYAM courses are also open to foreign students.
- Indian Institute of Management Bangalore (IIMB) has been appointed by MHRD as the National Coordinator for Management Education, and responsible for the preparation of online courses for SWAYAM in the Management Education sector. IIMB ensures that best quality content are produced and delivered to the management students through the development of quality MOOCs and shared via the SWAYAM platform. The courses hosted on SWAYAM are developed in four quadrants i.e., e-Tutorial, e-text, Discussion forum, and Assignments. The SWAYAM mobile app is also available for android, ios, and windows users.
2. **SWAYAM Prabha (The 32 Educational DTH Channels):** SWAYAM Prabha is a free DTH channel for education and through the 32 DTH channels quality educational programmes covering diverse disciplines are telecasted 24\*7 using the satellite GSAT-15. For more information visit URL: [www.swayamprabha.gov.in](http://www.swayamprabha.gov.in)
3. **National Digital Library (NDL):** NDL is a virtual repository of knowledge resources available for students. The NDL consists of more than 7 million educational materials available in the form of e-books, audios, videos, pictures and in other formats. For more information visit URL: <https://ndl.iitkgp.ac.in>
4. **National Academic Depository (NAD):** NAD is an online digital depository wherein all academic certificates such as degrees, diplomas, etc., can be uploaded in the depository. The certificates can be accessed and stored at any time since service is available 24/7. Online authentication and verification can be done by keeping an individual's privacy protected, this service helps avoid risk of spoilage, theft or tampering of documents. For more information visit URL: [www.nad.gov.in](http://www.nad.gov.in)
5. **National Mission on Education through ICT (NMEICT):** NMEICT is an important initiative undertaken by the Ministry of Human Resource Development (MHRD) to access and make available knowledge resources for self-paced learning anywhere and at any time. NMEICT mission will bring about convergence of high intellectual human capital and experts from diverse fields, and also to provide a single platform for everything needed for the learning community.
6. **e-Shodh Sindhu:** This is a consortium of educational electronic resources. e-Shodh Sindhu provides current and archival access to more than 10,000 e-Journals, more than 3135000 e-Books, etc., through Information and Library Network Centre (INFLIBNET) and Indian National Digital Library in Engineering Sciences & Technology (INDEST). This initiative of developing a National Electronic Library is to provide higher education consortia with access to scholarly content and qualitative electronic resources from a large number of publishers and content providers at a low cost subscription to its member institutions. For more information visit URL <http://ess.inflibnet.ac.in/>
7. **e-Yantra:** This is an initiative by MHRD through the NMEICT to spread awareness and education in the field of technology such as the Embedded systems and Robotics. Indian Institute of Technology Bombay (IITB) have taken up this initiative in elevating and enriching this field by creating students with an attitude of solution provider for challenging problems. e-Yantra has been implemented in many technical colleges to develop practical skills. Open source content on projects is available on [www.e-yantra.org](http://www.e-yantra.org)
8. **Campus Connectivity:** MHRD has decided to provide Wi-Fi enabled connectivity in campuses of Universities with bandwidth of 10 Mbps. Already, 1Gbps connectivity has been established in many universities which has been provisioned under NMEICT and all Indian Institutions have established a Wi-Fi enabled campus.
9. **Talk to a Teacher –** This is a program develop by IIT Bombay and incorporated A-View as a virtual collaborative e-learning tool for distance learning developed under NMEICT initiative by and funded by MHRD. After registration through

- www.aview.in, A-View can be downloaded and accessed through personal computer or web to participate in classes and events.
10. e-Acharya: This is a project developed and funded under NMEICT to host all e-content project developed in various subject disciplines through various universities Indian institutes and colleges, this portal would provide the learners with personalized learning and easy access to Online Course Materials, Expert Notes, E-books and Video lectures.
  11. e-Kalpa: This program is sponsored by NMEICT under MHRD initiative and is also called Digital Learning Environment for Design in India. Case studies and courses on Design Learning undertaken by professionals and students and examples of design and crafts, also video lectures, presentations by subject specialists can be found on the website for Digital Learning Design is [www.dsource.in](http://www.dsource.in).
  12. e-Vidwan: The Information and Library Network (INFLIBNET) funded under the NMEICT initiative developed "Vidwan: a database of experts and researchers network". Vidwan helps in collecting and maintaining academic and research profiles of researchers, scientists, faculty of R&D academic and organizations in India and across the world. This single point expert database helps establish communication with the experts in the country for selection of panels and committees for policy making, policy intervention, and decision making.
  13. The Free and Open Source Software for Education (FOSSEE): FOSEE project promotes use of open source software in educational institutions (<http://fossee.in>) and this project is under IIT Bombay. Instructional materials such as tutorials, documentation, textbook companions, etc., are hosted on the platform.
  14. Central Cloud Infrastructure: The MHRD has under NMEICT initiative is building a robust 24\*7 backed Data Centre to host e-content and the cloud is 'Baadal', all the activities of the cloud are put up at the NIC Data Centre.

#### **National Convention on Digital Initiatives in Higher Education (2017):**

The conference held on July 9<sup>th</sup>, 2017 in Vigyan Bhavan, New Delhi where all the Universities and Institutions participated to share their best practices and experiences carried out in the digital realm at their institutions. The objective of the convention was to launch the various digital initiatives and programs and to evolve action plans for successful adoption of these digital initiatives to fill in the gaps otherwise which is not possible by brick and mortar model of education alone. Implementation of these digital initiatives in higher education institutions can revolutionize the education scenario. All Vice-chancellors of Central Universities, Deemed-to-be Universities, Private Universities, State Universities, State Private Universities, Directors of Central Institutes such as IITs, IIMs, IISERs, IISc, IIITs, NITs and other central institutes participated in the conference. At this convention, a 17 point digital action plan was formulated to improve the academic standards of universities and colleges. The deadline provided to all Vice Chancellors in achieving the 17 point digital action plan was Dec 2017.

#### **SWAYAM:**

1. Approve the courses on offer: List of approved courses for the semester are available on [www.swayam.gov.in](http://www.swayam.gov.in), The VC's and head of Institutions are requested to take approval from the appropriate authority so that the students can opt and avail transfer of credits upon completion.
2. Publicise the Courses: The SWAYAM courses should be publicised through various social media, electronic media, etc., so that maximum people could benefit from the courses.
3. Prepare new courses: Teacher's willing to place their courses on SWAYAM can send the proposals for creating courses should be sent to the National Co-ordinator for approval and funding.
4. Retrain Teachers: The teaching staff should use blended learning process such as the flipped classroom model where students are encouraged to watch the SWAYAM videos at home followed by discussion in the classroom.
5. Monitoring Cell: Every university should have a Digital Learning Monitoring Cell to suggest on the effective use of educational technologies and utilisation of digital resources.

#### **SWAYAM Prabha DTH channels:**

6. Buy free Dish for accessing SWAYAM Prabha channels: Every VC may advise on buying DD free dish from the market worth the cost of rupees 1400 and configure the DTH channels in office and every classroom possible at the university and its affiliated colleges.
7. Orient the teachers: the teachers should subject to use these channels while teaching and VC's should provide orientation sessions to teachers.

#### **National Digital Library (NDL):**

8. Join the NDL: The universities and its affiliated colleges are expected to universalise access to this digital resource consisting of 80 lakh digital resources for free. The universities and other institutions may immediately join the National Digital Library at <https://ndl.iitkgp.ac.in/>
9. Digitise your libraries: All books in the libraries may be digitised and shared with the NDL at IIT Kharagpur so that the digital resources can be shared across all institutions.

#### **National Academic Depository (NAD):**

10. Join the NAD: Every institute should connect with NAD which holds the certificates digitally. All the past certificates/Degrees/Diplomas should be uploaded in NAD. For more details, please follow the URL <https://cvl.nad.co.in/NAD/home.action>
11. Digital Campus: All the campus processes such as admissions, paying fees, attendance, admissions, payroll, semester results, administration, etc. should be computerised.
12. Smart Campus: All campus should plan for an economical usage of water, electricity, and should manage waste. Universities and colleges should bring sustainability and savings through use of solar power and water recycling systems.

13. Clean campus: All campus must have good sanitation and it is important that every campus participates in Swachh Bharat Abhiyaan as there will be ranking to the institutions under swachhata rankings and the best would be rewarded.
14. National Digital Payment Mission: All Institutions should ensure digital payment systems are available in the campus which covers all transactions for the institution, including the commercial establishments and canteens on the campus.
15. Unnat Bharat Abhiyaan: All institutions under this scheme are directed to adopt atleast 5 villages in helping the rural poor by incorporating their skills and knowledge for their advancement.
16. Innovation drives: Students should participate in fests such as hackathons and other competitions that are organized by various institutions apart from government. The students should be encouraged to deliver innovative solutions by applying creative approach to the problems.
17. Planning:  
Plan for the future: All institutions should be futuristic in their approach and should form group to prepare:
  - a. A 15-year vision: to determine what the institution would foresee itself to be.
  - b. A 7-year strategic plan: to work out a strategy to achieve its goals
  - c. A 3-year action plan: for immediate improvement through tactical approach by determining steps and activities to achieve the goals.

The All India Survey on Higher Education (AISHE) has been asked by the ministry to design a monitoring portal in this regard so that they will be able to monitor the progress of institutions in implementing the 17 point digital initiatives and, this would help in recognizing Universities and felicitating them accordingly.

### Future of Learning in Management Education:

- Use of Artificial Intelligence (AI) in academia: With the advent of Artificial Intelligence in education, it has made significant contribution already in shaping and defining educational experience through automation of grading using rubrics, gamification of learning, and Massive Open Online Courses (MOOC's) which works like a tutor that will facilitate learning and feedback to students and educators.
- Use of Block chain technology in education - predictions are being made on the influence of blockchain technology in education sector by decentralised, secure depository applied for e-learning courses in storing and retrieving digital certificates or digital badges even in case of centralised server crashes.
- Fair use clause of copyright acts – Any expression of idea or plan that is original and creative contribution in field of web based education should be copyrighted so that anyone without author's consent should not be able to copy creative digital content.
- Availability of good quality e-books online in different formats would provide access and will never have the issue being out of stock; it will also reduce our efforts in re-writing the books.
- Learning Management System for institutions is about providing centralised digital space for documentation, monitoring, and tracking the progress of educational institutions, progress of students, professional development of teachers, allocation of resources and tools to manage the way forward of all the stake holders.
- Benchmarking of digital content in management education – global benchmarking of digital content is essential to maintain competitive and consistent standards in development of instructional materials and to guidelines should be clearly defined on the quality benchmarks so that learning content meets specified professional standards.
- Chatbots for instant help - Chatter Robots are computer programs that mimic human behaviour and capable of processing natural language, image and video analysis. The Chatbots integrated in educational platforms act as a human-like tutor to provide instant answers by searching from its database seamlessly which keeps the students engaged in learning.
- Instructional content should also be delivered in vernacular languages as a feature for providing a more personalized learning experience.

### Conclusion:

The study provides insights on initiatives taken by the MHRD to make quality higher education accessible to all and also highlights the challenges faced by Management institutions in making their programs globally relevant due to lack of availability of cyber-infrastructure and state of the art technology. In today's digital realm, it is pragmatic to consider having web-based learning to reduce the digital divide and promote a learner centric environment for continuous learning. With modernization the world is going to become more digital every day and the culture of our institutions will help us to navigate to the future and be more globally relevant. All universities and colleges should implement digital initiatives envisioned and outlined by the ministry to build a student-centric and institution-wide digital competency. Responsibility should be taken by the institutions to develop and manifest innovative pedagogy in learning to nurture talent unbound, thus improving standards of management education and making management graduates employable and viable leaders to lead business organizations in the digital economy.

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