

## DIGITAL REVOLUTION: NEW PARADIGMS IN ENTREPRENEURSHIP EDUCATION

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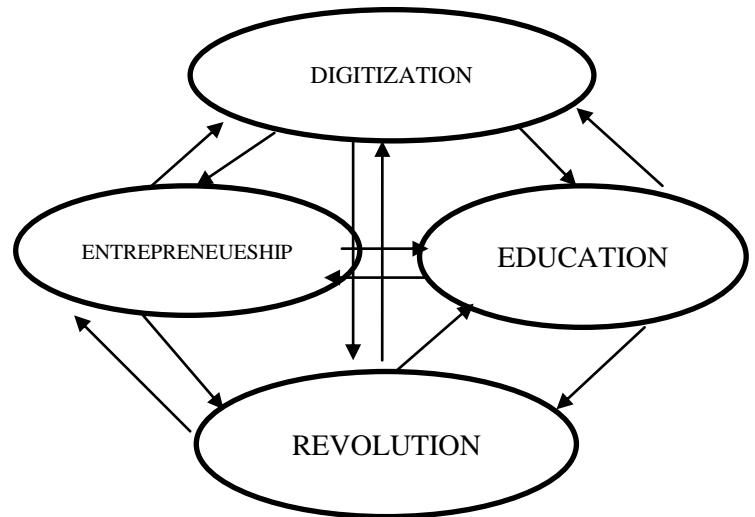
### ABSTRACT

The country's education sector is undergoing a revolution, thanks to rapid digital penetration, availability of low-cost mobiles, and cheap data packs. Many domestic and foreign training providers are offering online education to our country as technology is playing a major role in multiplying reach and providing access to learning tools and materials. According to Statistics\*, the number of smart phone users in India is estimated to reach 299.24 million in 2017 and the number of people having an access to internet is estimated to be around 462,124,989 ([www.statista.com](http://www.statista.com)). At the same time, we have a huge chunk of young population in our country who now aspire to be young, dynamic, risk taking, innovative entrepreneurs in the coming future. According to Ministry of Human Resource Development\*, the Gross Enrolment Ratio(GER) in higher education in India is 24.5% calculated for 18-23 years of age group in the year 2015-16([www.mhrd.gov.in](http://www.mhrd.gov.in)). **This paper endeavors to comprehend the transition of traditional to modern teaching-learning with use of digital technology specially in the sphere of entrepreneurship education. The researchers intend to explore the rapidly changing tech habits of students in the higher education sector, the use of digital technology in entrepreneurship education (both in and outside the classroom) and its impact on learning outcomes.** Youth of today are fast moving towards using digital technologies for self-learning as Ed-tech firms are providing them the comforts of 'Live and Interact anywhere', through their online programmers. Accessibility, affordability, and imparting technical skills are three of the most important factors for integrated implementation and availing benefits of these evolving paradigms. This is an exploratory study based on primary data collected through survey of students and connected stakeholders.

**KEYWORDS:** *Digital Penetration, Entrepreneurship Education, Modern teaching-learning methodology, Digital India, Accessibility, Affordability, Imparting Technical Skills, Digital Economy, learning outcomes*

## **INTRODUCTION**

‘Digital Revolution’ refers to the splendid transformation that the current scenario is going through, in terms of the use of technology, excellent accessibility to the resources and excellent affordability by each stake holder. At the same time, this is the peak time for entrepreneurship to flourish, especially in India, where more than half of the population falls under the age group of young, dynamic, innovative, and creative individuals who want to learn, who want to explore, who want to excel in technology, who want to become the upcoming successful entrepreneurs. And when all these factors are linked, it leads to a revolutionary effect. Digitization has taken education to a different level. The world is at your feet in just one click. It has removed the limitations of four walls, now there are no boundaries to a class room, whole world is a class!!



**FIG.1- ALL THESE ARE NTERLINKED**

In today's fast changing world, there is an excessive need to impart entrepreneurial education amongst students, to impart digital skills amongst students. Various initiatives, schemes started by government such as Digital India, Start-up India, Stand-up India, Skill India, etc are also to boost entrepreneurship and digitization in the nation. We have many examples where we can see how digital technology is being used effectively in imparting entrepreneurship education, such as- Byju's Learning app, Distance education, Distance learning, khan academy etc.

Digital technology is a part of today's learners lifestyle. If this technology is use appropriately for imparting education, learning can be more effective. Entrepreneurship education too can be done with help digital medium, enriching learning experiences. This paper focuses on comprehending the transition in teaching-learning methodology with the use of digital technology, especially, in the sphere of entrepreneurship education and understanding its impact.

### RESEARCH OBJECTIVES

- To understand the use of digital technology in entrepreneurship education,
- To understand the impact of the use of this technology on Learning Outcomes
- To understand the scope of growth of digital technology in entrepreneurship education and its to analyse its impact.
- To understand the challenges in use of this and to provide suggestions to overcome these challenges.

### SCOPE OF STUDY

The study was confined to Pune city teachers and students. Our area of study included teachers, professors providing education in entrepreneurship field and students having entrepreneurship as a major subject. Teachers and Professors were personally interviewed and

questionnaire method was followed in case of students. On the basis of that analysis, conclusions have been drawn and suggestions have been given.

### RESEARCH METHODOLOGY

This is a qualitative and quantitative study with an exploratory research methodology. The researchers have enumerated case studies of different institutions which provide digital education to entrepreneurship students in the economy. This study is based on research done through survey of students and related stakeholders to collect primary data. This data is supported by secondary data gathered from different portals like Google scholar, Your story, NEN (National Entrepreneurship Network), various internet sources, and research paper journals.

Following tools of data collection were used:

- **Survey Method**

Total population was 400 students, specializing in entrepreneurship From two colleges. 100 of them were taken as sample population and were surveyed using the questionnaire method.

- **In-depth Interviews**

In-depth interviews of teachers and professors, who teach Entrepreneurship in educational institutions, were taken, and based upon their responses, was the analysis made and the conclusions drawn.

## LITERATURE REVIEW

The integration of digitization tools in teaching and learning has been widely studied and experimented, particularly in the case of higher education. Many researchers have been done on digitization in education and a lot of it is available as study material for the students to accomplish their academic purposes. Following are some excerpts from some of the research papers based on digitization, challenges, some measures to overcome these:

Information is created in various formats at an accelerating rate through various media and it has become increasingly complicated to remain abreast in this overflow of literature without the help of information technology. Digitization improves access to information resources. Digital projects allow users to search for collections rapidly and comprehensively from anywhere at any time. The process of digitization makes

the invisible to be visible. A number of users can access the same document at the same time without hindrance. It also removes the trouble of distance, as users do not have to travel to locations that possess the hard copies of materials( *'Digitization and its impact on Economy' by Saima Khan, Vol.5.April-June 2015, Issue-2, International Journal of Digital Library Services,ISSN:2550-1142(Online), ISSN 2349-302X (Print), [www.ijodls.in](http://www.ijodls.in)*). Because there is such a large wealth of information that is now digitized, it is almost impossible for libraries and archives to save it all. Up to 80% of websites are updated and/or gone within one year of creation; this makes it nearly impossible for professionals to keep up(Lasfargues, Martin and Medjkoune,2012). Instead of trying to save everything, some believe that focus should be on devising the correct ways of preservation and the tools that should be used, and then teaching them to others. Particularly in regards to personal information and records, the public needs to understand the implications of information loss, and take steps to preserve their own information, thereby contributing to the collective historic record ( Reyes, 2013) . Corporations, Governments and even private citizens should be in charge of their own records,

with input from library and archival professionals (Galloway,2009).*(From Routhier Perry, S.(2014). Digitization and digital preservation: a review of the literature. SLIS Student Research Journal,4(1).Retrieved from <http://scholarworks.sjsu.edu/slissri/vol4/i ss1/4> ).*Although digitization is a time consuming and very expensive venture, but, it is a powerful way to cope up with the problems of persistent shortage of periodicals and other technical literature in institutions and technological schools in the developing world. Numerous organizations and institutions are taking initiatives in digitizing their documents, archives of newspapers, artifacts, theses and dissertation and other historical documents and images. This helps scientists, administrators, students, and other information seekers to have, wide access to innovations possible at a right time which were earlier outside their domain.*(From ‘Digitization and its impact on Economy’ by Saima Khan, Vol.5.April-June 2015, Issue-2, International Journal of Digital Library Services,ISSN:2550-1142(Online), ISSN 2349-302X (Print), [www.ijodls.in](http://www.ijodls.in))*

## **SECONDARY DATA**

The researchers have used web, internet, and various education portals as a source of finding secondary data. According to

Deloitte 2016 Digital education survey, which analysed over 2,800 responses from demographically diverse teachers and students, 42% of teachers says that at least one digital device is used in classroom everyday .75% of teachers believe digital learning content will replace printed textbook within next 10 years. 90% students use digital learning material at home. This survey dives into the ways learning happens inside and outside the classroom. This survey discovers many facts about how technology plays an evolving role in education. With digital education, classroom teachings have become more fun and interactive, and students more attentive.

## **CASE STUDIES**

### **1-YOURSTORY.COM-SHRADHA SHARMA**

Yourstory.com is India’s no.1 media platform for entrepreneurs, dedicated to passionately pioneering and promoting the entrepreneurial ecosystem in India .Yourstory’s website ( <https://yourstory.com>) reaches out to 5 million niche readers from India and across the world. This is agnostics to sector and scales, covering entrepreneurs, start-ups and business ideas from web, mobile, cloud, e-commerce, enterprises

to social, green and creative domain amongst others.

Earlier, the students had to refer books for required information. It was a very time consuming process. Hence, the productivity was quite low, but the business model of your story is economic in terms of time. It has comparatively increased the productivity of entrepreneurship students.

Yourstory.com has completely revolutionized the teaching and learning, and is convenient and efficient.

### **IMPACT-**

There is efficient utilization of knowledge resources. This has reduced cost and is time saving. There is more interaction between teacher and student in the class and students are more attentive.

### **2-DeASRA FOUNDATIONS-**

DeAsra foundation ([www.deasra.in](http://www.deasra.in)) is a section 25 company, a not for profit association formed to contribute to social welfare by enabling entrepreneurship, which will create employment opportunities. They encourage entrepreneurship through tools such as a web portal designed to spread awareness about entrepreneurship and promote business idea generation. They provide

pre-designed business models, templates created through well researched business models for multiple business lines. Two of the major parties getting benefited from this web portal are entrepreneurs and students.

#### **a) Benefits to Entrepreneurs-**

- Support and help in setting up small businesses.
- Guidance and support tool to manage small businesses.
- Helps business to flourish.
- Helps in implementation of idea

#### **b) Benefits to Students-**

- Business idea competitions which help students to think out of the box.
- Encourage business idea generation
- Provides business tools and knowledge resources.
- Enhancement of creativity and efficiency.

De Asra foundation is not just a platform which encourages business ideas but helps in transforming the idea into real and successful businesses. DeAsra's vision is to support entrepreneurship through a scalable business modelling

strategy and de-risking entrepreneurship to an extent possible.

### **IMPACT-**

DeAsra foundation has helped students in widening their knowledge about how business ideas are generated, and has encouraged many people to establish their start-ups and make them successful.

### **3-NATIONAL**

### **ENTREPRENEURSHIP NETWORK (NEN) BY Dr. ROMESH WADHWANI**

NEN has built a strong network with 600 colleges, 4000 mentors and 3200 faculty in India that continue to inspire, educate and support emerging entrepreneurs. Thousands of practicing entrepreneurs and start-ups are supported through NEN'S programs that facilitate learning through hundreds of short videos from experienced entrepreneurs, VCs along with dozens of longer video courses and blog posts. This network builds institutional capacity for creating entrepreneurs, also develops and inspires a pool of aspiring entrepreneurs enabling access to leadership and skill-building programs; providing access to expertise, mentors and capitalization network. This strengthens the entrepreneurial ecosystem to support existing start-ups.

#### **a) Benefits to Entrepreneurs-**

- Helps in skill-building.
- Mentoring, imparting knowledge
- Experts' bureau and networking
- Online entrepreneurs' academy

#### **b) Benefits to students-**

- Well –balanced mixture of classroom learning and practical implementation
- NEN offers a wide bouquet of online offers for students entrepreneurs such as business plan competitions, online workshops, etc, etc.
- Provides platforms like E cell, innovation centre and incubators that enable sustainable entrepreneurship development.

NEN supports aspiring students and entrepreneur and provides training through videos and VCs. NEN's curriculum programs are designed to instil critical entrepreneurship skills in students through innovative online and faculty assisted lesson spanning 3 years.

### **IMPACT-**

NEN supports more than 10,000 students and 6000+ entrepreneurs. NEN works with more than 500 members institutes, helping them build and deliver high impact entrepreneurship program.



#### 4. Google scholar-

Google scholar ([www.google.com/scholar](http://www.google.com/scholar)) provides a simple way to search for literatures. Sitting at one place, you can search across many articles, books, abstracts, court opinions, academics publishers, professional societies, online repertories, universities and other websites. Google scholar explores related work, citations, authors and publications. This locates a complete document through your library or on the web also keeps up with recent development in any area of research. Google scholar checks who is citing publication and makes profiles of the authors. It's mission is to organize the world's information and make it universally accessible and useful.

Earlier students had to sit in library for hours to get required article or piece of information, this was very time consuming and the outcome was not up to the mark. Now with the help of Google scholar a student can sit at a convenient place and search through hundreds of articles and publications.

#### IMPACT-

Students are able to cope up with assignments as they are able to read and understand the topic with Google scholar. It has become a time saving process and

productivity, efficiency has increased. A large amount data is available.

#### 5) DIGITAL INDIA-

Digital India ([digitalindia.gov.in](http://digitalindia.gov.in)) is a campaign started by government of India to ensure that government services are made available to citizens electronically by improved online infrastructure. Our Hon'ble PM Mr.Narendra Modi has introduced initiatives such as eBasta, e-education, Nandghar by Vedanta, which will impart education using technologies like smart phones, mobile applications and internet services in far flung areas. eBasta is an initiative by government aiming at making school book accessible in digital form as e-book to be read on tablets or laptops. Next about the e-education, in this, all schools will be connected with broadband, free Wi-Fi will be provided in all secondary schools. A program on digital literacy will be taken at the national level. Massive online courses shall be developed and leveraged for e-education.

##### a) Benefits to students-

- Universities and colleges all over the country will get access to high speed internet
- The education system will transit to being more practical and



research based rather than theory-based.

- With the help of technology, students will be able to access the study material from all over the world.

#### b) Benefits to entrepreneurs-

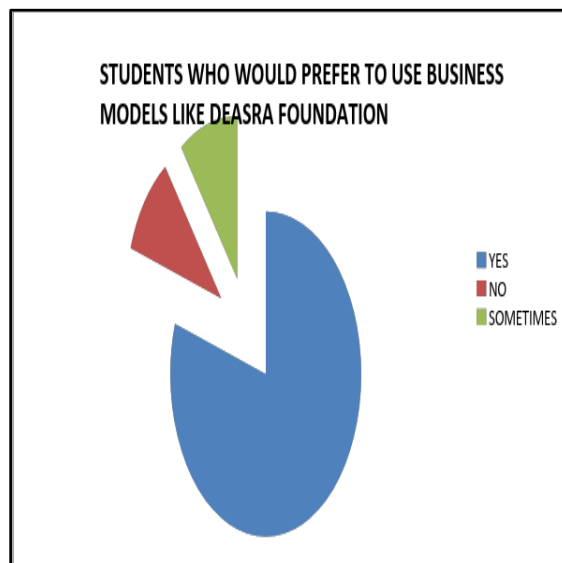
- More opportunities for budding entrepreneurs.
- Digital India supports aspiring student entrepreneurs to convert their dreams into reality.
- Lots of schemes under this particular mission are specifically for entrepreneurs.

### IMPACT

High speed internet can provide adequate infrastructure for online education platforms like massive open online courses (MOOCs).

### DATA ANALYSIS

This paper has brought to the forefront effectiveness of the use of digital technology in entrepreneurship education. Following analysis has been made, taking in consideration, case studies of various portals like Your Story, NEN (National Entrepreneurship Network), Google Scholar, DeAsra Foundation.

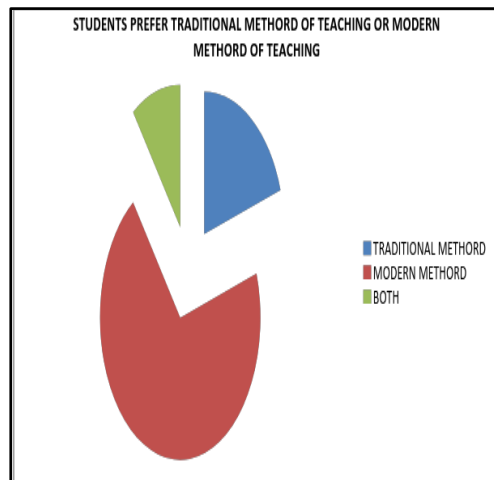


#### 1. Analysis of survey with students

According to the survey, 80% of the students prefer modern method of learning through digitization. They find this method more interactive, interesting, something which has expanded their scope of knowledge, has helped them explore new things beyond boundaries and limitations of four walls. Even, most of them find the teachers efficient enough and the use of technology quite frequent in classrooms.

When asked for suggestions, some students suggest that more of discussions should be there to make learning more effective and interactive. One of the interesting suggestions that we came across was that “learning methods should be such that evolve small groups of learners, this would be

effective even if no technology is used.”



## 2. Analysis of Survey with Teachers

Numerous professors and teachers were personally interviewed who teach entrepreneurship in different colleges. Following is a consolidation of their responses:-

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1	USE OF DIGITAL TECHNOLOGY FOR TEACHING ENTREPRENEURSHIP	ALWAYS
	EFFECTIVENESS IN WAY OF IMPARTING EDUCATION	VERY EFFECTIVE

3	USE OF DIGITAL TECHNOLOGY FOR ENTREPRENEURSHIP EDUCATION IN CLASS	<ul style="list-style-type: none"> <li>• USE OF ONLINE RESOURCES</li> <li>• VIDEO CONFERENCES</li> <li>• USE OF TED VIDEOS</li> <li>• REFERRING TO VARIOUS PORTALS</li> <li>• VIEWING VIDEO CLIPS FOLLOWED BY GROUP DISCUSSION AND ROLE PLAYS</li> <li>• SOLVING CASE STUDIES</li> <li>• USE OF PPTs</li> <li>• USE OF GOOGLE-DOCS FOR TEACHING/ASSISTING RESEARCH METHODOLOGY.</li> </ul>
	USE OF DIGITAL TECHNOLOGY FOR	COMMUNICATING GOOD APPLICATIONS LIKE 'FOR

5	ENTREPRENEURSHIP EDUCATION OUTSIDE CLASS	BETTER INDIA' , 'MIND MAPPER' , 'SCHOLAR DROID' , 'ONE NOTE' , 'KEEP' , 'NOTES' - WHICH ARE USEFUL FOR EFFECTIVE PERFORMANCE OF AN ENTREPRENEUR .WHAT WAS EARLIER NOT THERE IS NOW THERE ,SHARING WHATEVER USEFUL WE FIND WITH STUDENTS,GOING FOR SKILL SESSIONS, FOR GIVING LECTURES OUTSIDE COLLEGE, FOR SEMINARS, FOR CONFERENCES, CONNECTIVITY ON SOCIAL MEDIA etc.etc.			BE FOLLOWED BY A DISCUSSION SO THAT IT LEADS TO SOME CONCLUSION ,DOES NOT STOP OVER THERE,SUCCESS AND MOST IMPORTANTLY FAILURE STORIES OF ENTREPRENEURS MUST BE SHOWN,INDIVIDUALS MUST TAKE INITIATIVE AT THEIR LEVEL AS NOW DUE TO DIGITIZATION AND E-GOVERNANCE, THINGS HAVE BECOME MUCH EASIER AND PROBLEMS LIKE RED TAPISM, BUREAUCRACY HAVE REDUCED TO A GREAT EXTENT..
	SUGGESTION IF ANY	SHOWING OF VIDEOS MUST			

While interviewing teachers, we found out that now as the time and trends are rapidly changing, even professors are becoming more technologically advanced. They feel that technology makes one more efficient, smart, effective, commercial, interactive, developed, and advanced. And thus, now a days, almost all the professors who teach entrepreneurship use technology in teaching-learning process. And according to them, it has had a tremendous effect on the learning outcomes. 100% agreement was there in case of effectiveness and use of technology, which leads us to the fact that not only youngsters, even old and experienced minds are moving towards digitization which is an excellent sign of development.

## CONCLUSION

Having conducted the survey and going through past data, we lead to so many conclusions. Digitization and entrepreneurship are in the air, are increasing by leaps and bounds, and changing the world rapidly. We see that mindsets of people are changing. Rather than looking for job security, youngsters, like us, are ready to take risks and be an entrepreneur. **Current Demographic Dividend of India is a major factor in the development of digitization,**

**entrepreneurship, and vice-versa.** At the same time, various initiatives taken by government to encourage digitization and entrepreneurship boost the morale of individuals. Educational sector is going through metamorphosis stage too. Increasing use of technology in classrooms, outside classrooms, for entrepreneurship, have led to the fact that upcoming entrepreneurs must be tech-savvy in order to cope-up with the competitive world. The world of internet is huge and endless. These online portals such as NEN, Google Scholar, Your Story, deAsra and many more are providing excellent platforms for entrepreneurs and looking at the trend, we can say that if we keep up with the pace, nobody can stop India from becoming a pioneer in the world.

## SUGGESTIONS

- More exposure to outside world should be there by way of video conferencing, explaining functioning of industries through digital ways.
- More of 'Innovation and Incubation Centre's must be opened in academic organizations to develop an entrepreneurial skill amongst students.
- Risk taking ability, creative thinking, thinking out of the box techniques

must be developed among primary students because at that stage.

- More of training centers must be opened in order to impart skills for learning and using technology as affordability and accessibility are not an issue now.
- More digital libraries must be established and accessed. E-journals contain a lot of unexplored and extremely useful data, especially for entrepreneurship.
- Ultimate power is Human Mind,(the controller of all)- people must remember that. We might develop as many techniques as possible but to run that, Human Brain is required. So, that must be trained, moulded in such a manner which leads to development of all.

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