Chapter 1

Introduction

This chapter provides an overview of the study, the origin of the idea, and the background and significance of the study. The chapter has been divided into several sections each dealing with the topics mentioned above.

English Language and communication teaching has come a long way in Indian Education system. While the importance of language and communication in general and English language in particular has been realized for long, the actual inclusion of English language and communication in academia at primary, secondary, senior secondary and tertiary level has faced numerous challenges. Moreover, the methods used to teach and train students in English language and make them efficient in communication skills, are a subject of debate. Similarly, the weightage given to English language and communication in the mainstream courses in higher education is also debatable. This is particularly true when it comes to the training of students of Engineering, Science and Technology disciplines. English language and communication courses are still seen and treated as supplementary parts of the core disciplinary courses. Communication skills courses in the present context refer to those courses which are designed for the engineering undergraduate students. In most cases students are offered one or two courses related to either English language skills or communication skills in general. At the same time, industry treats the communication skills as mandatory skills. The aspiration of the 'digital native' generation of students, demands new pedagogy and modules for acquiring skills based learning, which is a must for their carrier. 'Digital natives' refer to the group of users who are born and brought up in such conditions where technology is an integral part of their daily routine (Prensky, 2001). This is

where new media technologies can come in handy, particularly, the Internet Based Platforms.

Engineering and Technology have been the disciplines of interest for a large part of the population in India. With the globalization and Economic reforms in 1992, these disciplines became more attractive, and were seen as prospective routes to respectable, high package jobs. In the previous years, exponential growth has been noticed in the establishment of Engineering and Technology institutes across the country. The argument can be supported by looking at the report published in 'The Hindu' by Rukmini (2015), p.5 "New census data on the educational status of Indians show that the biggest increase is in the number of people pursuing engineering and technology diplomas or technical degree equivalent to a graduate or postgraduate degree. The proportion of Indians with engineering and technology qualifications has nearly doubled over the last decade. In all, there were over 73 million Indians with a technical qualification in 2011". Similarly an article in 'The Hindu' by Shanmugham (2016, p.4) writes, "Technical education in India has scaled over the last decade boasting of thousands of engineering colleges spread across the length and breadth of the country, producing over half a million engineering graduates annually". These observations imply that there is an exponential growth in the Engineering and Technical fields of the country. In addition to this, IT industry revolution played the role of a catalyst in fuelling the aspirations of a large number of students wanting to become engineers and technologists. As a result, millions of engineering students graduate from institutes of technical higher education every year.

Technology intervention in education domain has existed for a long time now. Beginning from objects used as models, electronic devices, and now the internet based platforms; it has always been a vital aid. In the context of Language and Communication teaching, radio and broadcasting technology has been present since early twentieth century for inculcating

specific skills for effective writing, speaking, listening, and reading. Moreover, the evolution of language lab has been documented in detail in literature. Computers have changed the shape and scope of language lab. In a report Kataoka (2000) writes that computers and equipments inside a language lab can be used very effectively to enhance all the four skills of learners, i.e. listening, speaking, reading, and writing. The author opines that computers open numerous opportunities for the learners. For example, they can be used as an effective tool by novice learners to exercise pronunciation drills. Through e-mailing and chatting, the monotonous work of writing can be converted into an interesting task. The students can record their own voices and improve their pronunciation by comparing it with the native speakers. It would gradually build up the confidence of the learner. The learner can not only improve his/her performance but also evaluate himself/herself.

In the contemporary context the Internet Based Platforms (IBPs) provide exceptional opportunities to take technology intervention into English language and communication teaching like never before. In the present study the term *Internet Based Platforms* has been used as an umbrella term for those platforms where users can create and share their work and experience. The essential requirements for IBP integration include the device such as computer, laptop, or smart phone. Another essential requirement is the internet connection. With its ubiquitous nature, IBPs help to break the space and time barrier.

While technology usage in communication enhancement and its impact has been studied in detail, an equally important question of what leads to technology acceptance remained unanswered, particularly in Indian education context. Acceptance or adoption can be defined as a user's willingness to employ technology for the tasks it is designed to support (Teo, 2011, p.1-5). Various scholars and researchers have proposed various theories to understand the phenomena of acceptance, which are explained in the literature review chapter.

1.1) Technology Interventions in Human Life

Technology intervention is ubiquitous, including education domain. The major stakeholders in education, teachers and students use technology for the learning and teaching process. Technology has broadened the scope of learning. Both 'digital natives' and 'digital immigrants' use technology as a supplementary aid in teaching and learning process not only inside the classroom but also beyond the classroom boundaries. Similar to the other spheres of life, the use of technology in education has reduced human efforts required in accessing and preparing new learning material. Now students, whether in college or in school, use internet to accomplish various study related tasks. They complete their assignments, projects, take online tests, and gather information using these Internet Based Platforms. Online lectures, tutorials, online quizzes, learning material and ample of other educational resources are available for students.

In the contemporary context, internet technology has affected us unlike other technologies. In a little span of time over two decades, internet technology has become an integral part of digital natives and digital immigrants. With the invention of internet, the tasks which required herculean efforts can be completed in no time today. Large amount of information/learning content can be saved on a tiny device. The problem of storage has reduced to an extent which was unimaginable just two decades ago. Information retrieval is just a click away with efficient search engine technology.

Numerous software and applications are available to help us in our daily tasks; booking of cab rides, filing complaints, opening of an account, checking and updating status of any filed complaint or inquiry, so on and so forth. The government is also putting so much effort to make internet available to every citizen of our country. "Digital India"- the initiative taken by the present government is an attempt to make internet accessible in the remote areas of the country.

1.2) Technology and the National Education Policy

In post-independent India, education at all levels was the most important concern of the new Indian government, (Ministry of Human Resource and Development MHRD) 1986. There was a genuine concern about education reforms at the national level. Several committees and commissions were established to submit reports on the status of education; reviews and recommendations, and ideas to formulate an effective educational policy. There was a common thread in all the reports, which was 'emphasis on the development of Science, Technology, and Scientific research'. The education policy 1968 was the stepping stone for education in India, which introduced the 10+2+3 system in the country (MHRD, 1986). The policy also stated about the skill based education and Mathematics and Science as a compulsory subject for all the students. Work experience was considered as an essential component of the basic education. The restructuring of the courses was done at the undergraduate level as well. Although the policy had a flexible structure but its implementation was very inefficient because of certain challenges such as, accessibility, financial conditions, level of awareness, quality assurance, and heterogeneous nature of the student population. The poor infrastructure of rural India and the low literacy rate of women were some of the major issues of the failure of the policy implementation. It was therefore felt that reforms in the education policy of 1968 are needed. In 1986, a new education policy was introduced in the parliament after considering views and suggestions from different strata of society. The policy clearly mentions the importance of technology for establishing and strengthening the networks of the educational community and to fill the gap between different institutions located at remote distances.

Life-long education has been described as an important feature for different people like working class, differently abled people, housewives, and adult-learners. Distance learning is a solution for such people who cannot go to school but can avail education through

correspondence. Technology can play a very important and effective role in distance learning. It was mentioned in the report submitted for the amendment of the new education policy that there would be a special emphasis on education for women's equality, education for the scheduled caste, education for the scheduled tribes, education for the people located in the remote areas, education for the differently abled people, and adult education. For adult education the role of technology has been emphasized in the policy. It was highlighted that radio and television can be used as a very effective tool for adult learners. Non-formal education, drop-outs, and people from remote areas and poorer section of the society can leverage technology prowess in an effective way. It can be used to improve their learning outcomes by creating mock-learning environments.

The Secondary Education section of the 1986 draft report highlights that computer literacy is a very important aspect of education. Students must master the skills of handling a digital devise such as computer so that they can compete with the advanced world. Computer literacy also helps the fast learners to move ahead with their own pace and same applies to the slow learners. It has been emphasized in the policy that computer literacy can be used as an effective tool to make the learners more confident and independent. In the context of higher education, the policy document emphasizes the importance of the dissemination of knowledge and skills acquired. It is also mentioned that higher education plays the key role in preparing teachers for the education system. The draft also emphasizes the consolidation and expansion of the existing facilities and resources in the institutions. Equally emphasized is the point that audio-video aids should be used to assist in teaching the students in higher education.

There is a special emphasis on the Gandhian basic education approach in the policy, which projects the grass-roots level of educational transformation in rural India. In order to achieve this goal, leveraging technology has been advised. If proper infrastructure is given in the

rural Indian educational institutes, the gap between the rural and urban divide can probably be bridged. However, it has been clearly admitted in the document that there is a need of proper infrastructure and manpower for technical advancement in rural India.

In the present scenario the government is actually taking action for the inclusion of new media and technological advancements for the students in government schools. But there is a dearth of providing technical training for handling those tools. The training for using and handling the technologies inside the classroom which has been addressed several times in the policy documents is still ineffective. The networking, collaboration and the importance of technology for enhancing research outcomes have been focused upon. Technology integration has been strongly emphasized but not on the cost of avoiding the traditional methods and techniques. Technology should be used to synthesize the blend of modern technological gadgets and the traditional valuable methods.

The National Education Policy (NEP) draft 2016, states that 'Digital Literacy' should be imparted to the students from fifth grade onwards. Section 4.9 in the National Education policy, 2016 exclusively discusses the need and importance of Information and Communication Technology (ICT). As stated in the report, "ICTs can also be harnessed for remedial education, training of teachers, adult literacy programmes, skill education, learning tool in higher education and also as a governance and management tool" (NEP 2016, p.27).

Importance of technology in general and ICT in particular was emphasized in the 1968 policy, 1992/95 policy and it came with much emphasis in the report for 2016 policy as well. ICT can be helpful for making individuals skilful, which is the need of the hour in the world of globalization. ICTs can help adult learners, socially backward learners, specially challenged learners, and similar other group/groups of people who are deprived from the basic education and skills due to certain reasons. Similarly, several ICT applications are available and can be used for monitoring the performance of the learners. There are other

applications which can be used for the evaluation part of education. ICT based applications can be used for monitoring the teachers and students in the educational institutions, which will be very helpful in the educational management process. Particularly, there is a special stress on Massive Online Open Courses (MOOCs) and the Learning Management System (LMS) since it solves the issue of accessibility and financial issue because of its low cost.

1.3) Technology and the Academic Stakeholders

Information and Communication Technology has been an integral part of the education domain, since it became affordable. It plays a very important role in bridging the gap between the internal and external context of the classroom learning. For all the stakeholders involved in the education system, ICT offers a unique utility to maximize gains. ICT helps in bringing all the stakeholders closer to each other by creating a closed network. It helps to bring the people from underprivileged background into the mainstream. It helps to form connections between the urban sections of the society with the people living in rural sections. The students of rural areas, who are not aware about the technological advancements, can be pulled into the mainstream with the help of technologies and equal chances can be given to them for their development. As quoted in NEP draft 2016, “In 2014-15, the retention rate at primary level was 83.7 per cent and it was as low as 67.4 percent at the elementary level. Its usage in education remain limited and there is a need to accelerate efforts to use ICT for fostering quality education” (2016, p.9). This remark indicates that the drop-out rates are very high in the country. The children who cannot go to school, children who are working as an income-source of the family and taken out from schools must be provided opportunities for education with the help of ICT. NEP draft 2016 reveals, “India still has over 280 million adult illiterates which is about one-third of the total number of adult illiterates in the world” (2016, p.5). ICT can play a key role in educating these adult learners.

There are several challenges in expanding education. There is a problem of connectivity, accessibility, equal distribution, and dissemination and implementation of the created knowledge. ICT can solve the problem of connectivity and can help in the process of dissemination and implementation as well. Organization for Economic Co-operation and Development (OECD), 2000 discusses that continuous communication among the stakeholders of the education domain is a pre-requisite, and ICT plays a major role to channelize the ideas and strengthen the communication process. Moreover, it opens new avenues for networking between stakeholders.

However, there are several issues related with integration of ICT, for instance, availability of ICT and appropriate training. Although the scenario is changing, but there is a need of concerted effort for appropriate training in order to use ICT effectively. Hargreaves (1988) suggests that training received by teachers invincibly influence their professional outcomes. Therefore, special courses should be offered and workshops should be conducted while the teachers' in-service training and the focus should be on the practical utility of ICT.

ICT inclusion becomes an arduous task because the diffusion process faces several challenges. For the digital natives, it is not a challenge though, because ICT has already been diffused into their daily lives very smoothly. It becomes a matter of difficult transition with the digital immigrants, and generally teachers fall under the category of digital immigrants. So, this problem of diffusion and acceptance of technology can be solved by training. Successful diffusion and the consequent acceptance will lead to higher usage of ICT, increasing the creation and dissemination of new knowledge. However, the gap between the important pillars of the education domain, the teachers who work as practioners, the researchers who are trying to find solutions for the problems faced by the teachers, and the policy makers who are not much aware of the real-life problems of the teachers and the students, can be bridged with collaboration and open, continues communication. ICT

facilitates collaboration to bridge the gap and accelerate communication between these stakeholders.

1.4) Technology Integration in Indian Higher Education

The Indian Government initiated the National Mission on Education in year 2009 in collaboration with the Ministry of Human Resource and Development (MHRD) and Indian Institute of Technology (IIT) Bombay. The motive of this mission is to empower the teachers and students through synchronous and asynchronous instruction (http://www.mhrd.gov.in). It regularly conducts workshops and online competitions to enhance the efficiency of teachers towards using new technologies. The mission is fully supported by Modular Object-Oriented Dynamic Learning Environment (MOODLE) and Massive Open Online Course (MOOCs) platforms. There are several functional programmes under it. One of them is e-yantra, whose aim is to create the next generation of embedded systems engineers with a practical outlook to help provide practical solutions to some of the real world problems. Another is T10kt, train 1000 teachers at one time. It was initiated by IIT Bombay in 2009. It is increasing the number of teachers to get trained at one time. Initially it was 1000 and then the number was increased and taken to 10,000 at a time. Other initiatives such as National Programme on Technology Enhanced Learning (NPTEL) and Indian National Digital Library for Engineering, Science and Technology (INDEST) have also been commissioned. Exclusive education channels like *Gyan Darshan* and *Eklavya* broadcasts educational programmes for school and college students.

A MOOC platform is first and foremost a branded website promoting courses based on a common learning management system (LMS). MOOCs are of various types, hMOOC (hybrid MOOC), MOOR (Massive Open Online Research), MOOL (Massive Open Online Lab), DOOC (Distributed Open Collaborative Courses), POOC (Participatory Open Online

Courses), and SPOC (Small Private Online Courses). MOOCs are gaining popularity in all over the world because of the free accessibility feature (Kim, 2016).

In 2015, government of India launched 'SWAYAM', a MOOC platform in India. On this platform students would be able to access courses which are completely free of cost (Prasad, 2016, The Hindu). Two universities are providing these courses, namely, IIT Bombay, and Princeton University, U.S. Now more IITs from the country are joining this platform and students are getting benefits. MOOCs have become the centre of attraction for the educationists in India. A report published in a leading daily states, "Higher Education in India is expensive and MOOCs have come as an antidote to this problem with free classes" (Ralhan, 2016, The Hindu). In another report Chandra revealed, "Students who are not able to get enrolled into a traditional college or institution can get a professional degree from here. He even claimed that what Netflix has done for movies MOOCs has done for education" (Chandra, 2016, The Hindu).

India ranks third after US and China in terms of number of students availing MOOCs programmes. The University of Macquarie, Australia is offering scholarship for students on this platform. MOOCs are gaining popularity, and these programmes are becoming more and more successful because of their easy availability and accessibility. A study in University of Washington reveals that women are more likely than men in completing a course on MOOCs and obtaining a degree. The study also reported that popularity of MOOCs is more in developing countries when compared to developed countries (Nandi, 2016, The Hindu).

The reason of such popularity of all these online platforms is that it allows the students to move ahead with their own convenience and pace which makes these online platforms valuable. India Grid for Learning is an education marketplace and Identity Access Management (IAM) platform in India, that aims at creating a seamless synchronized teaching and learning experience for educators, institutions and schools. This platform would

not only be used by students for learning but also for monitoring the learning pace of students. Even in the states of the country the government and people are taking initiatives to make the digital literacy available to each and every person even in the remotest parts (Kashyap, 2016, The Hindu). The Kerala-wide Digital Empowerment campaign, to make the digital literacy accessible to the masses, is a great initiative. In all the 14 districts of Kerala, 280 schools were selected for the campaign and millions of people would be benefitted by this campaign. 5600 tablets were distributed to students fully equipped with various educational apps and software (Special Correspondent, 2016, The Hindu).

1.5) Traditional Media, New Media, and the Educational Technology

Traditional media refers to the text based materials like books, newspapers, magazines, charts, graphs and so on. Policy draft report (1986) based on 1968 policy, emphasizes the importance of print media in education, it emphasizes on the availability of books, libraries, and newspapers in the educational institutions at all levels. A special provision has mentioned about the availability of libraries in all educational institutes and increasing the number of books in all existing libraries.

New media refers to the dynamic and portable nature of the text and media, like audio and video channels, online journals, material stored in compact disks and so on. In the present context new media deals with the technologies and tools which support internet based platforms. Freynik (2014) wrote a review on the difference between the use of traditional media and new media. His study investigated the positive role of new media. It can be very effectively used for motivating the learners to increase their learning outcome efficiency. He has substantiated his point by referring to various 350 previous studies. These studies have suggested that new media technologies are very helpful to increase the motivation level of the learners. It opens many options for the learners in self-selecting study materials, and it

will lead to deeper engagement with language and provide more time to complete their tasks. It eventually makes the task of learning much easier for the learner.

In Indian classrooms, initially, the use of traditional media was popular. Gradually, technology started penetrating the classroom in the form of teaching aids. Here it is important to make a distinction between technology in education and educational technology (Kumar, 1996). Technology in education refers to technology which are not specially designed for education, but used in the education process as well; whereas educational technology refers to the technology specially designed to make the teaching-learning process more scientific, smooth and valuable for the students and teachers, for example Epidiascope and Language lab work stations. Initially traditional media aids were available, like charts, models, actual objects (if possible), to make the learners' perception clear and widen the scope of their comprehension.

Educational technology helps in programming, managing, simulating, and controlling the teaching-learning process. Educational technology helps in accommodating individual needs, and similar role is played by technology which is used in education. By looking at their features and characteristics it can be said that both the terms are overlapping and can be used interchangeably. Beginning from charts and models, radio and disks; came an inflection point in technology intervention in classroom- the computers. Afterwards, with the invention of the web and its versions, the barriers of time and space were broken.

Chronologically, the intervention of technology in education, started with the inclusion of radio in the Indian classrooms. On 23rd July, 1927 Lord Irwin formally inaugurated the first radio station in India. In 1937 radio was formally used for educational purpose in Calcutta. Afterwards at various places in India the use of radio was started for educational broadcasts. Certain amount of budget was sanctioned for the broadcasts of radio programmes for students. In 1965, radio was started for university students. In 1979-80 radio found its place

in learning and teaching languages, and a project was started in Rajasthan as 'Radio Pilot Project'. The target was to include 500 schools from Jaipur and Jodhpur under the project. Kisumu (2011) made an attempt to observe the potency of radio for communication enhancement. The results revealed that radio broadcasts can not only be helpful in learning the language faster but also be helpful in learning the nuances like pronunciation and intonation of routine vocabulary and sentences.

Television technology was introduced in India in 1959. In 1975, *Satellite Instructional Television experiment* (SITE) was carried out in 2330 villages of 6 Indian states. The experiment was conducted to find out whether it is possible or not to access technology from the remote areas. In March 1977 a post-SITE project was started. In 1982 a multi-purpose satellite named INSAT- an 'Indian National Satellite' was launched and later in 1983 INSAT-B was launched. 6 states were included under these satellites. The main purpose of INSAT was to include the backward villages into the mainstream. Later in 1984, Higher Education Television Project (HETV) was carried out for higher education by the University Grants Commission (UGC). It was designed for undergraduate students and teachers. *Mass Communication Cell* of UGC broadcasts programmes for students and teachers of higher education. Universities like Indira Gandhi National Open University (IGNOU) broadcast their own programmes for distance learners. '*Prasaar Bhaarti'* broadcasts various programmes for students at all levels.

Wang (2012), tried to find out whether television which is considered as a primary source of entertainment can be used as a tool to improve the listening skills or not. If yes, then to what extent. In order to achieve this goal, 5 students were selected and fixed numbers of hours were given to them to watch English serials, not for fun but for language acquisition. After a span of time their performance was observed and the results were very encouraging. All the 5 learners not only improved their language efficiency but also their cultural knowledge. It

signifies that the visual perception with audio facility is very effective to enable the learners to learn.

1.6) Internet Based Platforms in the Teaching-Learning Process

Internet Based Platforms (IBPs) are the new media technologies with certain specific characteristics of their own which facilitate constructive learning. The users also act as knowledge creators. These platforms allow the users to create and share their content. Various studies have proved that these web-based collaborative technologies have promoted effective communication skills among learners. Collaborative nature is one of the common features of IBPs. Today, the users are not only content consumers but also content creators. A user can express her/his views, and can contribute to others' ideas also. A student who is extremely shy in the class room can be a user with highest number of posts on facebook, likewise an outgoing personality can become passive on these platforms. These technologies can be used as an effective tool to enhance the communication competence of learners especially, of those who are introvert or feel hesitant in front of audience. IBPs such as Youtube and Skype can be used for listening and speaking practices, while other IBPs such as blogs and wikis can be used for writing and reading purpose.

A wiki is a web-based tool that allows users to create and publish their content collaboratively. Users can create content without giving information about their identities. Wiki is a Hawaiian word, and its meaning is "quick". The first software wikiwikiweb was developed by Ward Cunningham in 1994 (Waldeck and Dougheerty, 2011). Any content can be updated, created and edited on this platform and it allows multiple users to post and edit information. So, due to this feature students can be given a lot of written tasks, assignments, and projects on this platform. They can complete their tasks and assignments in collaboration with their peers and the learners can help each other with their mistakes. While

working in collaboration, not only their targeted goals, but also their accessory goals can be achieved.

Blogs are similar to wikis. Users can share their ideas and views on this platform like what is done on wikis. The term "weblog" was coined by Jorn Barger in 1997 and the short form, "blog", was coined by Peter Merholz (Joosten, 2012). Unlike wiki the entries are authored by the owner with the information of date and time and visible to the users. Users can upload text, images, audio and video files. The posts are displayed in a chronological sequence on this platform. The recent posts would appear on the top. Blogs have also been referred to as personal journals. Educators recommend the integration of blogs into language learning because of their salient features such as, blogs are easy to create, blogs provide opportunities for writing for real audience, and they enable two-way communication between authors and readers. Yin, Wang, and Comac (2008) tried to find out whether audio blogs can be helpful in improving oral efficiency of language learners. 22 students were selected, and through open-ended questions and interviews, their responses were collected. The results showed a significant positive response of the respondents. It was observed that they enjoyed the usage of these audio blogs, individual feedback was given to them which created a feeling of individual attention in them. Hsu, Wang, Lowe and Williams (2004) suggested that blogs can be used in education as instructional resources and are known as ‘edublogs’. Therefore, edublogs can be used by the language and communication teachers for giving reading and writing practice.

YouTube is the most popular destination of web tools for uploading and publishing of videos. A person can upload videos and allow them to be viewed privately or publicly. YouTube, with audio-visual perception features, provide suitable opportunities for students to enhance their communication skills. The comments and discussions, which generally follow a video post, help to develop language and communication skills, particularly spoken

and non-verbal through scaffolding process. The post-discussion develops critical thinking skills as well.

On Social Networking Sites (SNSs) the users by creating their profiles, join other networks on the basis of different criterion like common interests, geographical locations etc. Joosten (2012) opines that the openness of some social media facilitates the building of networks because it provides greater access to colleagues. "Educators can easily find and make connections with colleagues who are located all over the world and can have greater access to influential colleagues in their field. Linked in is a famous networking site for connecting professionals. Since social media is an open platform, users can search and locate individuals, the profiles and shared information can be accessed, connections can be established easily", (Joosten, 2012, p.43). Social Networking Platforms can be used as a very effective tool for the enhancement of communication skills by the hesitant students as well. Arquero and Frias (2013) conducted a survey to investigate the usefulness of social networking sites. The SNSs are very popular among today's generation. So an attempt was made to evaluate its popularity in educational context. An SNS platform was created using the link "Ning". The major issues taken were the active role of the learners' collaborative learning, promoting critical thinking, and content learning. In all of the issues taken, the responses were highly affirmative. Most of the students responded that with the inclusion of these SNSs in education, students' active role can be increased. The students aforementioned that these sites are highly helpful in content learning and doing team work. It motivates them to work and it makes their tasks more interesting.

Learning Management Systems refer to a software application which is used for multiple educational purposes like managing the information sharing between student and teacher community, between teacher community and administration apart from learning content management. McGill and Klobas (2009) mentioned that there are numerous software which

are used by educational institutions for tracking, managing, reporting, sharing, record-keeping etc. Software such as MOODLE and MOOCs are very popular these days in educational institutions. The earliest networked learning system was the 'Plato' Learning Management system (PLM) developed in the 1970s by Control Data Corporation. Rubin, Fernandes, Avgerinou, and Moore (2010) conducted a study to observe if LMS enhances active engagement and satisfaction, and to what extent it helps to enhance the learning outcomes. The results revealed that the use of LMS positively affects these variables and other aspects such as behavior of teachers with students, the design of the content etc.

1.7) Objectives of the Study

The following objectives were formulated to dig deeper into the research topic after examining the presence of IBPs in the education domain. The study attempts to comprehend the factors which motivate the students of communication skills courses in accepting IBPs to accomplish their academic goals, inside and outside classroom learning. An attempt has also been made to cognize the perception of communication courses teachers towards the technology intervention in the present education scenario. The objectives of the study are as follow:

- To gauge the IBP usage intensity of students of communication skills courses.
- To find out the most influential and motivating factors responsible for IBPs acceptance.
- To find out the moderating effect of *gender* and *years of experience* while accepting IBPs.
- To comprehend the teachers' perception towards technology intervention in education.

1.8) Significance of the Study

The study focuses on the use and acceptance of Internet Based Platforms (IBPs) by students of Communication skills courses in Technical Higher Education. These platforms are used by teachers and students. An attempt has been made in the study to observe the usage and acceptance behavior of students and teachers' perception on technology intervention in higher education.

In the National Education Policy draft, there is a strong emphasis on ICT integration into the curricular academics. The implementation part of the mentioned recommendations is a huge challenge. There must be reasons behind this gap between the policy and the practical utility. By exploring the factors of technology acceptance behavior, an attempt has been made in the study to find out the reasons of this gap.

There are primarily three target beneficiaries, namely, students and teachers, educational administrators and IBPs industry.

This study will help the students to focus on the factors which motivate them to use technology in the learning process more effectively. Moreover, it would also help the teachers to create appropriate learning content and devise new pedagogies which embed the IBPs seamlessly into curriculum.

Similarly, the study will help the education administrators to take note of the factors and invest and provide appropriate technology infrastructure which motivates the learners to accept IBPs as an integral part of the learning process.

The study would also provide valuable inputs to technology development industry. By incorporating the acceptance factors such as Effort Expectancy and Performance Expectancy, the industry is expected to come up with simple interfaces to provide collaborative and easy to use interfaces.

1.9) Summary

The importance of technology can be seen in all spheres of life globally. Technology intervention has been identified as an important aspect in the education domain at the national and international level. The policy documents, and the survey reports, documents the importance of technology in educational context in detail. Emphasis has been given on the importance of communication and information technologies.

Internet has given a new platform to the world for the exchange of information. Internet has catalyzed the process of globalization, which is ultimately helping in all the spheres of life. Internet Based Platforms can be availed from anywhere, anytime for multipurpose tasks like, sending and receiving messages, ideas, pictures, audio files, video files, and so on. Internet Based Platforms provide huge resource repositories which can be availed through multiple users at single point of time. The issues like accessibility, compatibility, and storage have been solved to a maximum extent. There are certain challenges which come allied with the opportunities of internet and allied technologies but the advantages are of ample importance.

Technology helps in bridging the gap between the theory and practice of various fields. It acts as a bridge between the stakeholders involved in education. It helps in the synthesis and distribution of new knowledge, and in the management of existing knowledge. ICT has great potential to bring changes in the education system as it breaks various problems like accessibility, low participation, and teachers' training.

The collaborative nature of IBPs facilitates one to one and one to many interaction, real time feedback, peer evaluation in real time, and scaffolding methodologies. These IBP technologies specifically provide effective awareness for Language and Communication fraternity. Teachers and students of Language and Communication can plan, deliver, submit, and assess academic achievements with effectiveness. While usage of technology is a pre-requisite for any technology penetration in user base, equally important aspect is understanding the acceptance factors.

While there is abundant evidence of the use of IBPs, there is little research available to understand why technology gets accepted or rejected. It is paramount to understand the determinants of successfully integrated technologies in education.

1.10) Structure of the Thesis

The thesis has been divided into 5 chapters. The *first chapter* delineates the background and motivation to carry out the study, the technology intervention in human life, advantages of technology in the education domain, the emphasis given to technology inclusion in education in the policy documents, followed with the objectives of the study. The *second chapter* provides an exhaustive review of literature of relevant research body. It further explains the various theories of acceptance and the studies which used these theories as their theoretical foundation. The chapter concludes with the research gap derived from the literature review. The *third chapter* explains the broad methodology, the methods and approaches adopted for the study to be carried out. The chapter describes the sampling procedure, the design used for the study, the unit of analysis and various methods adopted to approach the sample and the statistical techniques used to interpret the results. It follows with the *fourth chapter* which explains the results, findings and the discussions. Finally, the *fifth chapter* concludes the thesis describing the limitations of the study, and the future scope for further research.