
Code of Conduct for EdTech Industry: A sine qua non?

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Abstract

The year 2021 represented a paradigm change in favor of EdTech. The disruptions and lockdowns caused by the pandemic drove both parents and educational institutions to embrace technology, making EdTech the most funded sector in the country. While there have been arguments about the benefits and pitfalls of online and digital education, there is no denying that this medium has benefited students during the lockdown. How effective it has been and how it has affected students, parents and teachers are a couple of pertinent questions, answers to which shall be researched in time to come. However, amidst all these developments, transparency has become a significant concern. EdTech companies were under pressure after accusations surfaced that they were enrolling children, from low-income families, in expensive courses by duping their parents into consenting to hefty loan terms. Such practices of luring the customer forced the government to intervene in December 2021. Thus, EdTech companies have begun implementing a transparent system to create accountability and eradicate such malpractices. The present study aims to explore the mechanism of developing the code of conduct, the extent of regulation by the government, and whether having these two will hamper the growth of the EdTech industry.

Keywords: *Education, Education Technology, Education Reform, EdTech Companies, Online Education, Digital Education*

1. INTRODUCTION

Technology has become a commonplace feature of modern life. There is a vast penetration of technology in the lives of people lives, societal norms, cultural values, and political and economic processes in many ways. Obtaining information through the internet, grasping news, using multimedia, the functioning of the stock market, and the effectiveness of the Global Positioning System (GPS) are some daily life illustrations. Not only this, the way technology has diffused into education over the past few years is worthy of our attention.

Information Technology (IT) and education are the world's largest sectors, fuelled by the knowledge economy (Koh & Lim, 2008). Technology usage in education is not a new concept. Earlier, it was in the form of simple printing, and today it comes in the shape of virtual reality. The usage of educational technology can be divided into two categories: technology of education and technology in education. The technology of education includes the entire system of education that is intangible. The goal of educational technology is to make teaching and to learn more effective (Ellington *et al.*, 1993). The latter term comprises instructional material, software, and hardware used to communicate information to students, according to Ellington *et al.* (1993). The technology in education concept sees information technology as a panacea that can enhance student learning by integrating technology in education.

With over 260 million students registered in more than 1.5 million schools and 39,000 institutions fulfilling the needs of 27.5 million undergraduate and 4 million postgraduate students, India has a manifold education system (IBEF report, November 2021). This presents an excellent opportunity for the education sector. A series of a breakthrough in new-age pedagogies have significantly changed India's educational landscape. The employment of technology in education is one of the turning points on this path. The explosion of information technology has changed the world's shape and affected all facets of human life. The same is true for the educational sector, where cutting-edge technologies have aided traditional student-teacher interaction and learning methods. As a result of the pandemic, education has undergone significant changes with the advent of online learning, which involves instruction delivered remotely and via digital platforms.

Online education has seen exponential growth over the past decade. As a result of the internet's ubiquity and the convenience of online courses, it has become a fundamental element of education. (Li and Irby, 2008; Luyt, 2013; Lyons, 2004). Furthermore, economic challenges confronting many education institutions and student demands move these institutions' focus further toward using online education (Limperos *et al.*, 2015). It's not surprising that online education has gotten so much recognition because of its benefits for teachers, students, and institutions (Konetes, 2011).

A variety of EdTech (a term that combines "education" and "technology") enterprises have sprung up around the country. The Indian EdTech industry was valued at US\$ 750 million in 2020 and is predicted to grow at a Compound Annual Growth Rate (CAGR) of 39.77 % to US\$ 4 billion by 2025 (IBEF report, November 2021). The year 2021 represented a paradigm change in favor of EdTech. While the COVID-19 outbreak impacted many enterprises, the online education sector is one of those that is fully operational. Because of the pandemic's disruptions and lockdowns, both parents and academic institutions have embraced technology-enabled learning options making EdTech the most funded sector in the country, with Byju's taking the lead with 57% of the total cash raised, followed by Unacademy (10.5%) and Vedantu (9.5%) (IBEF, 2021). Since 2020, four EdTech startups in India have become unicorns (Unacademy, UpGrad, Eruditus, and Vedantu), while one has become a decacorn (Byju's).

While there have been debates about the benefits and challenges of online and digital education, there is no denying that this medium has helped the students to continue their education during various lockdowns imposed in the country. How effective it has been and how it has affected students, parents and teachers are a couple of pertinent questions, the answers to which shall be researched in times to come, but, of late, there have been demands for regulating online and digital modes of education. Many ethical guidelines and professional codes have been developed to ameliorate technology's potential threats and risks in all aspects. However, there are still significant debates about their practical effects on education and enterprises and how such arrangements and regulations can safeguard business interests (Greene, Hoffman, and Stark, 2019). One of the recent developments in this area is the government advisory on EdTech firms. The government issued a warning to parents, advising them to be cautious while dealing with organizations that offer online courses for children. As these courses were not free contrary to the advertisement shown, and in a few cases, buyers had signed up for these companies' loans inadvertently and were subsequently trapped (Nanda, 2022). Such practices of luring the customer by deceiving advertisements and false claims had left the government of India with no choice but to intervene last year in December 2021. Is it putting EdTech companies in the dock? Has it become a sine qua non to have a code of conduct for EdTech companies?

This review paper begins by exploring e-learning, online education, educational technology, challenges associated with a precise focus on the deceptive practices adopted by the companies in this sector to lure consumers, and eventually the interventions made by the government to regulate the EdTech industry. The authors have found just a countable number of blogs and articles related to the topic under study. The present research may bring to light a more in-depth look at the situation of the EdTech industry and the malpractices adopted by them.

2. REVIEW OF LITERATURE

The literature review is thematic and has been divided into themes related to the proposed topic.

2.1 Online Learning

Students can learn in different settings, including one-on-one, distance learning, and online learning. Multimedia recordings, computer-aided instructions, synchronous and asynchronous communications, web and visual displays, modeling and gaming, peer interaction, asynchronous learning networks (ALN), ZigBee, and portable devices are some of the technologies used in online learning (Hiltz and Turoff, 2005). Online education is referred to as "distance education", "e-learning", "online learning", "blended learning",

"computer-based learning", "web-based learning", "virtual learning", "tele-education", "cyberlearning", "Internet-based learning", "distributed learning", and other terms in the research literature. These phrases were regarded as sufficiently synonymous in this investigation and used interchangeably throughout. With a focus on the United States, Dziuban *et al.* (2016) has categorized the evolution of online education in four phases: the 1990s (internet-driven distance education), 2000-2007 (increased use of Learning Management Systems (LMS)), 2008-2012 (progression of Massive Open Online Courses-(MOOCs)), and beyond, with online higher education enrolments outpacing traditional higher education enrolments. In a study by Harasim (2000), it was revealed that the first fully online course was provided in 1981.

Electronic mail, e-business, automation, and today e-education have all been part of the e-evolution or e-revolution. E-education, often known as online education, is altering our approach to teaching and learning. At times, e-learning is often mixed with online learning, but there is a difference between the two. E-learning is the process of gaining access to web-based technology resources that one can use in or out of the classroom (Maheshwari & Thomas, 2017; Nichols, 2003). The terms like e-learning, online learning, internet-based learning, computer-mediated learning, hybrid learning, mobile learning, and the like refer to the ability to learn from almost anywhere, at any time, at any pace, and with any resources using a computer connected to a network (Cojocariu *et al.*, 2014). Online learning is defined as learning that takes place entirely online, with students learning beyond the classroom (Oblinger *et al.*, 2005). Many factors, including technological characteristics, a comprehensible online platform, classroom activities, and evaluations, can influence the effectiveness of online learning (Wijekumar *et al.*, 2006; Shuey, 2002).

2.2 Desideratum of e-learning

Within the last few years, the paradigm of conventional education has changed considerably. Online classes have been around since the nineteenth century. It has become increasingly popular in the United States over the last twenty years. Many institutions believe that this sort of input will be critical for the future of education (Allen & Seaman, 2014). With the development of the internet and new technologies, being present in the class is no longer the sole method for learning. Nowadays, one can get excellent education anytime and anywhere as long the person has internet connectivity. According to the study conducted by Kanwar (2020), when the pandemic hit, the education system was visibly unprepared, and it had to find quick answers. The chosen method was e-learning. Online learning has a lot to offer to all students, whether one is in elementary school or graduate school. Many digital tech businesses then, including Google Classroom, Zoom, Microsoft Teams, and Blackboard, have played a vital role in the transformation (Adeoye *et al.*, 2020). According to a report released by the United Nations (UNO) in August 2020, the COVID-19 has created an immense upheaval in the education system in history, affecting roughly 1.6 billion children in over 190 nations. At that time, e-learning had taken the place of the old way (face-to-face education). Now,

present-day post-pandemic, the institutes are running into the hybrid mode of education according to a study by Mathivanan *et al.* (2021).

2.3 The boom of Indian EdTech startups

In the year 2007, two IIT grads embarked on a mission to revolutionize the world of education with the help of technology. Ralhan and Kamath, with crucial offerings such as TeachNext, LearnNext, MathsLab, and Next ERP, were able to reach over 10,000 schools across the country in less than a decade, transforming the lives of over 1,000,000 children with a mission to become the leader in technology-based education solution provider (Yadav *et al.*, 2018). During 2014–2015, India saw a significant increase in EdTech startups. The sector has received more than \$100 million in investment (Bansal, 2016). Few trends indicate that a greater emphasis on technology-driven education will be the next big thing and will ultimately acquire traction (IBEF, 2017). A study by Yadav *et al.* (2018) found that Byju's could raise USD 75 million from Sequoia Capital and Sofina, a Belgian investment group, to boost content distribution, expand the product pipeline, launch new markets, and grow the talent pool. NIIT (a training and skills development company) has collaborated with edX, a US-based company, to offer online courses from major worldwide universities such as MIT and Berkeley to about half a million people.

While the pandemic has affected many businesses, the online education industry is hardly affected. From a traditional to a virtual classroom, much progress has been made in the Indian EdTech business to solve the challenges of teachers and students (Mathivanan *et al.*, 2021). Various online learning platforms serve millions of individuals, including Udemy, Coursera, Lynda, Skillshare, and Udacity. Using objectivist and teacher-centric didactics, local, regional and national institutions have been forced to move to online and hybrid courses using digital technology. This has enabled student-centric pedagogy, earlier being offered by only a few hundred global mega-universities. These conditions highlight the need for scenario planning for academic institutions (Rieley, 2020). During the emergence of the epidemic, ed-tech companies have grown at an exponential rate. Byju has begun to distribute free content in contagion and has gained 7.5 million new users to their website. Other companies that have seen development three times include Unacademy, Vedantu, and Toppr. This expansion is unsurprising. After all, India's student population exceeds 1.5 billion, and they have no other option in this condition (Tripathy and Devarapalli, 2021).

2.4 Challenges associated with Online Education

Every coin has two sides, and the EdTech sector is not an exception. Besides the benefits associated with online education, there are some challenges too. Digital education does not include watching videos of lectures through the internet. It's about finding the right platforms, technology, tools, interactivity, curation,

and content, among other things (Pitroda, 2020). Lack of resources, like unavailability of computers/laptops or tablets, and no access to the internet at many places in the remote areas where students and staff reside, was a significant concern in most studies (Oyedotun, 2020). Some students find it challenging to engage in digital learning because they do not have reliable internet access or technology; this disparity persists across nations and between income levels within countries. Because of the technological challenges of teaching online, Coyner and McCann (2004) observed that current classroom resources may or may not be compatible with the electronic components, and media like video clips may be inaccessible to students.

Online education was not very popular in our country. Most of the teachers fell short of the necessary skills to teach and administer exams online. Teachers were forced to teach and complete assessments from their houses due to the lockdown. To teach or conduct evaluations online, they also had to overcome obstacles such as inadequate technical facilities in their home, like a laptop, internet, and microphones. Online educators have lacked technological support and resources for providing relevant materials as per the study by Mathivanan *et al.* (2021). Many institutes continue to use an open-source platform for online instruction, raising concerns about teaching and assessment quality and confidentiality. Learning and teaching provision has become increasingly disaggregated as online education has grown, and education institutes are collaborating with several organizations to reach new learners.

Another concern is how minorities and students from low-income strata are capable of obtaining contemporary technologies. (Singh & Pan, 2004), as well as how to accommodate challenged students who require specific accommodations. The students who do not have access to all forms of internet technology cannot be ignored. These students are not from well-off families and come from less technologically advanced backgrounds with less financial resources; as a result, they may be disadvantaged when classes are held online. Due to digital devices and internet data costs, connections may lose out (Dhawan S, 2020). However, multiple consumers have provided a sample of a typical sales pitch for an EdTech firm on consumer complaint forums and social media. If the sale is made in person, the salesman will disregard the child's intelligence and pressure the family to purchase an EdTech subscription to secure the child's future. Because of the state of government schools, most salespeople show concern about the child's education (Rakheja, 2021)

3. RESEARCH METHODOLOGY

The research methodology for the current study has been explained below:

3.1 Research Design

The research design for the current study was descriptive in nature. Methodology for this study was to first look at previous studies and research on knowing the transparency in the conduct of EdTech companies, followed by exploring the role of government in regulating the same.

3.2 Problem Identification

Throughout human history, several diseases have struck, wreaking havoc on human life, education, and global economic advancement (Editors, 2020). The coronavirus (COVID-19) is a pandemic disease that affects education systems in countries of various socioeconomic statuses (Wajdi *et al.*, 2020). Many students prefer the online classroom because it allows them to work around their hectic schedules. Students must become lifelong learners in today's environment, with the proliferation of information and knowledge, and e-learning plays a vital role in assisting individuals in accessing learner-centered and self-directed learning. E-learning is here to stay, no doubt!! But how effective it has been and how it has affected students, parents and teachers are a couple of pertinent questions. The answers to these questions shall be researched in time to come; however, amidst all these developments, transparency has become a significant concern for administrators, parents, students, and teachers all across the world (Lossec & Millar, 2021). EdTech companies were under pressure after allegations surfaced that they were enrolling children in expensive courses by deceiving their parents into assenting to large loan terms. Such practices of luring the customer by deceiving advertisements and fraudulent claims had left the government of India with no choice but to intervene last year in December 2021. Hence, the present study aims to explore the mechanism of developing the code of conduct, the extent of regulation by the government, and whether having these two will hamper the growth of the EdTech industry.

3.3 Data Collection

Numerous studies have raised various concerns. However, these issues have not been grouped under any category to provide organized insights into the problems of online instructors (Mayes *et al.*, 2011). The advisory by the government went on to say that the success stories touted by these EdTech companies could be a ruse to gain users. Further, during a winter session of Parliament, Congress MP Karti Chidambaram discussed what he described EdTech businesses as 'predatory sales techniques'. This backlash against educational technology corporations isn't new. In reality, dissatisfied parents have taken EdTech companies like Byju's to consumer courts on multiple occasions, alleging that the company's sales agents cheated them. After a customer claimed that she hadn't received the agreed amount of course fees from Byju's, a consumer court in Pune ordered the company to pay Rs 50,000. In an article published by Rakheja (2021), Byju's had also allegedly sanctioned a Rs 1.1 lakh loan in her name without her consent, according to the customer. Many such incidents have put the EdTech companies under intense scrutiny.

Literature based on information and communication technology, online education, e-learning, EdTech, educational technology, and subject disciplines was assessed for the current study, but little information was

available. Still, the authors have attempted to bring the facts to the surface for the parents and the learners. Data collection aimed to study empirical research on the EdTech industry published in peer-reviewed publications, including quantitative, qualitative, mixed methods, and literature reviews. The keywords that were used included, "online education and challenges", "online teaching and issues", "online learning", "education technology", "Covid-19 and education", "transparency in EdTech", "Code of Conduct for EdTech", "reforms in online education", "government regulation in EdTech industry". Google Scholar, Educational Resources Information Center (ERIC), JSTOR, SAGE Online, Teaching, and Learning Journals, Conference proceedings, and EBSCO HOST were among the databases used for literature research.

4. DATA ANALYSIS

Robust infrastructure must be enough to deliver uninterrupted services. The Ministry of Human Resource Development (MHRD) proposed a draft National Education Policy (NEP) – 2020 to increase teaching and learning using online methods. The strategy also stresses the importance of promoting education through sophisticated technological tools like AI, big data, VR, 3D printing, and robots, as well as developing technical infrastructure and supporting new teaching and learning mechanisms (Williamson & Eynon, 2020; MHRD, 2020c). Online education is becoming a mainstream global phenomenon, and many institutions are experimenting with novel formats. The developments in the field of online education bring numerous opportunities and also problems for all stakeholders.

Much of the early discussion in education journals, newsletters, and blogs on EdTech focused on new initiatives by educational enterprises, the promises of EdTech, and the beneficial effects on student learning and accomplishment. The primary problems stem from a lack of transparency in using aggregated educational data (Perrotta *et al.*, 2020). The decision to self-regulate was prompted by rising concern voiced in the Parliament that a few EdTech companies were trying to engage in various business wrongdoing to gain customers. For instance, one of Byju's representatives spoke with a customer and assured him that his son (in 6th grade) would get weekly contact with subject matter specialists and thorough counseling on any doubts or inquiries. No contact was made after that by Byju's. Upon being contacted by the customer a week later, he informed that the representative had left Byjus and gave him another unresponsive contact. He was duped! (Harish, 2019). In reality, dissatisfied parents have taken ed-tech companies like Byju's to consumer courts on multiple occasions, alleging that the company's sales agents cheated them (Rakheja, 2021). In one of the articles written by Barman, (2022), in The Indian Express, it was mentioned that the Indian EdTech sector, according to experts, is anticipated for regulatory intervention by the government. They propose a monthly subscription model similar to Netflix, with no minimum lock-in term, which would twist ed-tech industry arms to create high-quality products to retain users.

The central government is working on a policy to control the country's EdTech players to reduce monopoly and prohibit some EdTech platforms from exploiting students through grandiose promises or unfair practices. A group of top companies in India's fast-growing EdTech industry recently took a move toward defining a set of standards to run their businesses. Under the able leadership of the industry association Internet and Mobile Association of India (IMAI), the EdTech companies have formed the India EdTech Consortium. India EdTech Consortium has created a code of conduct for its member companies. The code attempts to address the government's perturbations (Barman, 2022). To mention a few, unless the advertiser corroborates with evidence, the advertisement cannot declare or cause the public to assume that an institution, course, or programme is official, recognized, authorized, accredited, approved, registered, affiliated, endorsed, or has a legally defined situation (Singh, J. 2019). Also, when acquiring educational equipment filled with material or programmes designed to deliver online learning, stakeholders should request tax invoice statements (Talukdar, 2021). In one of the articles published by Talukdar (2021), the Education Ministry also advises that before subscribing to an ed-tech company's service, parents should conduct a thorough background investigation and verify the content quality. Parents must keep track of any spam calls or forced signups for any education packages to submit a complaint. There should be adequate verification; parents and children must not accept the 'success stories' offered by ed-tech companies since they could be a trap to attract additional viewers (Ministry of Education, 2021). The companies have been advised to follow the Advertising Standards Council of India's self-regulation code. Policies regarding restitution and abrogation should be explicitly posted on the user portal in a way that can't be overlooked. The rule of conduct states that "loans and other funding FAQs should be explicitly specified on the site" as per Barman (2022). The majority of the sections refer to red flags that have been raised recently. Byju's, Harappa, Careers360, Great Learning, Unacademy, Vedantu, Upgrad, TimesEdutech & Events Ltd., Simplilearn, Toppr, and WhiteHat Jr are among the companies who claim to have followed the credo "what is told is what is sold" (Barman, 2022).

The consortium employs a two-tiered strategy. Any consumer can register a complaint with the internet tech consortium, a primary pillar against any of the practices outlined in the code of conduct. Following receipt of a complaint, the concerned company will be contacted for a response. A set number of days will be given to the corporation to reply to the complaint. When the tech consortium receives a complaint answer, it will decide if it is appropriate after consulting with the suer. In its absence, an impartial grievance board will investigate the situation. Following that, the board will make a recommendation for the next step. There will be retired government officials and people from academia as well. Officials from the consumer goods industry will be among the members (Barman and Chopra, 2022).

We need to increase the ability of policymakers and practitioners to implement effective e-learning. Governments may create policies and regulatory frameworks that encourage blended learning, making the education system more adaptable and resilient to future problems. Strengthening the capacity of staff and

students should be the foremost goal for institutions. Blended learning appears to perform best in developing nations, according to research. A combination of e-learning and face-to-face instruction is known as blended learning. Depending on the resources available, institutions can decide on the percentage of each component.

5. CONCLUSION

Online learning pulls a wide range of students with diverse academic needs that traditional education is inadequate for addressing. The demand for online courses has been fuelled by delivering quality education to all students, regardless of location or time (Chaney, 2001). Students learning through online education must be cautious and selective while enrolling them in such courses; as the maxim goes, 'Caveat Emptor'. It is a known fact that government regulations and intervention scuttles and hamper fast-track growth in most cases, and in some cases, these regulations have potentially killed the industry. While EdTech has grown at full tilt, it is still in its infancy stage, and stringent government regulations can play spoilsport in its growth. Therefore, regulation in EdTech should happen only after careful thought and research by involving experts and various stakeholders. It should also be there to protect the general public and customers while aiding further growth of the EdTech industry.

6. FUTURE RESEARCH

According to Li Kang, Ai English Executive Director, "Online Learning is the future. If there were no virus, that realization would have taken another few years to accelerate the process".

The review has helped identify the gap by describing and identifying the main patterns of issues in the literature for online learning and EdTech companies. Numerous researches have taken place, and some are still ongoing. We must identify the best way of using educational technology that is affordable and available to all students across the country. The current study has included only the secondary data available in various databases. A similar study can be reproduced in the future based on the primary data, and the findings can be extended to large samples from other nations. There is a significant gap when it comes to the regulatory framework and developing a code of ethics for EdTech. Possibly future studies may focus more on in-depth analysis of these grey areas and bring to surface guidelines for the conduct of these EdTech firms.

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